This is an interactive PDF; please click on the contents listing on page 4 or use the navigation keys to move about within the document.

To use the functions of Acrobat as normal, including to print, please press the *'Escape'* key on your keyboard.

Yorkshire Wildlife Trust

The Trust has worked for sixty years to protect wildlife of all types, and the places where they live. It manages and protects over eighty of the best and most important nature reserves in both rural and urban Yorkshire.

The Trust works to protect and save threatened species, such as the otter and water vole, whilst inspiring people and helping people of all ages to understand and enjoy their natural environment as well as encouraging communities to protect wildlife within their local areas.

Advising landowners on how to manage their land for wildlife, from large companies and local authorities to farmers and individuals, is a large part of the Trust's work, as is influencing planning decisions and campaigning for better protection for wildlife.

Wild about York!

Wild about York is a two year project that has been funded and supported by the Heritage Lottery Fund, with the aim of providing high quality outdoor education on green sites around York for primary schools and the local community, which allows for a greater appreciation of the green sites within York.

My role through the Wild about York project, has been to act as Education Officer, encouraging, inspiring and enabling teachers to get their students outside into the 'living classroom' their local environment. The concept of a 'living classroom' allows children to enjoy hands on interaction with nature whilst learning and having fun. The following pack has been produced as part of the project.

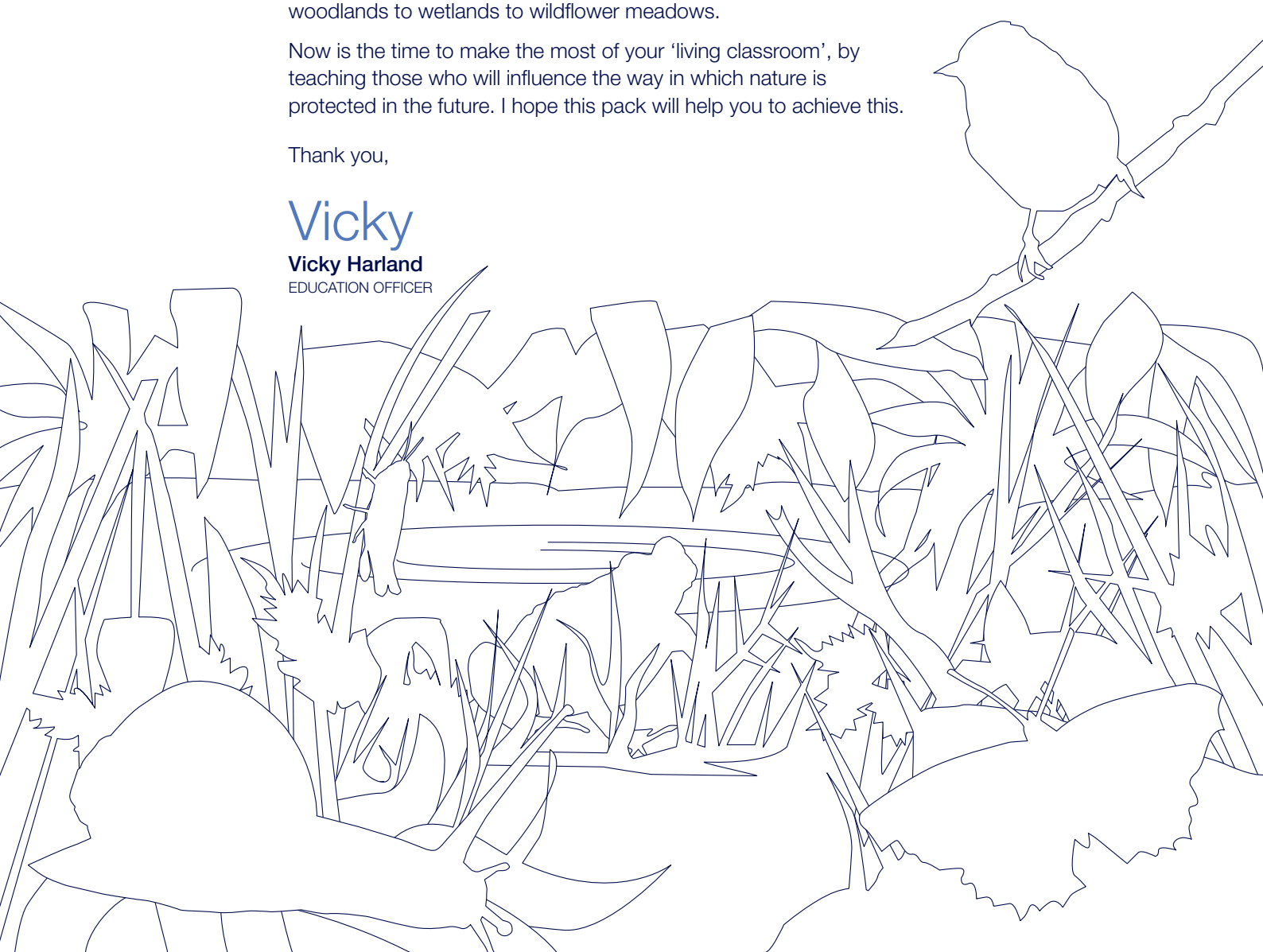
This education pack provides a high quality resource to use when delivering outdoor education on your local green sites or within your school grounds. It will provide you with everything you will need in order to conduct an exciting and effective outdoor education session. It contains lesson plans that support the National Curriculum objectives for Key Stages 1 and 2 and is linked to the QCA schemes of work. The pack contains full risk assessments, maps of local green spaces and a variety of stimulating ideas for lessons. The lesson plans within the pack cover a wide range of subjects from Science and Citizenship to Music and Maths. Fourteen green sites within York are promoted within this pack. These sites offer a wide variety of environments and are a good representation of the different types of green sites within York. They offer everything from woodlands to wetlands to wildflower meadows.

Now is the time to make the most of your 'living classroom', by teaching those who will influence the way in which nature is protected in the future. I hope this pack will help you to achieve this.

Thank you,

Vicky

Vicky Harland
EDUCATION OFFICER



Acknowledgements

During the publication of this education pack I have been offered continued support from a variety of people and organisations. I would therefore like to thank the following people for their much valued support during the project:

- The Heritage Lottery Fund, who funded and supported the project.
- Stephen Whittaker and Clair Suddaby from the City of York Council, Parks and Open Spaces Department. Their commitment and continued support throughout the project allowed it to be the success which it is today.
- Many of the lesson plans within the pack have been trialled and tested with the help of school children in and around York. I would therefore like to say a big 'thank you' to those children and their teachers.
- A big thank you goes to Gillian Roach, who whilst working for the Trust supported me continuously throughout the project and to who I am very grateful.
- I would like to thank the Friends of Wheatlands Educational and Community Woodland, York Cemetery, St. Nicholas Fields Local Nature Reserve and Hob Moor Local Nature Reserve for giving their time and knowledge.
- And last but not least, thank you to all those unsung heroes who helped to make this project happen.

FORWARD BACK EXIT

Contents

Lesson Plans and Resources

Please click on the contents listing below or use the navigation keys to move about within the document.

How to use this pack...

How to use this Education Pack

This pack is split into two parts:

- **Site Information**
- **Lesson Plans and Resources**

The first part of the pack contains site information and includes maps, generic risk assessments and background information on each of the sites. You can use this information to decide which site would be most suitable for your educational visit or you can simply find out more about the green site that is local to your school.

The second part of the pack contains lesson plans, worksheets and resources, which you can use to compliment the delivery of the educational sessions. The lesson plans are linked directly to the QCA units, and Key Stages 1 and 2 of the National Curriculum.

The cd contains an exact copy of the education pack in an interactive PDF form and can be printed as a whole or in parts as required.

A guide to planning an educational visit...

Choose a site
See map of York and loose sheets containing site information

Pick a lesson plan
All of the lesson plans except 'Playgrounds', 'Investigating Rivers' and 'What was it like to live here in the past?' can be delivered on all of the green sites. See the individual lesson plans for recommendations of where they can be delivered

Obtain generic site and activity risk assessments
See loose sheets containing site information and appendix 1, and check and amend as required

Visit the site prior to the session

Photocopy worksheets and resources
See the last part of each subject section

Book equipment
Equipment that is listed with an asterix can be loaned from the Parks and Open Spaces team at the City of York Council free of charge. They can be contacted at **City of York Council** on **01904 553440**.

Do the session!

art and design

art and design
Investigating Materials

Objectives
- To be able to investigate the possibilities of a range of materials and processes
- To be able to ask and answer questions about the starting points for their work, and develop their ideas
- To be able to try out tools and techniques and apply these to materials and processes

Year Group
Years 1 & 2 (5 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 A&D/1ab, 2abc, 4ab

Equipment

Scavenger Hunt
- List of descriptive words (A&D1)
- Bags*

Natural Creation
- Twine*
- Scissors

Resource Relay
- Examples of plant resources
- Examples of animal resources
- Examples of quarried resources

Willow Weaving
- Willow

Key Words
Man-made
Natural
Colour
Texture
Sort
Hard
Shiny
Coarse
Smooth
Rough
Weaving

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Explain** to the class that they are going to investigate the qualities of a variety of natural and man-made materials. Ask the children what a natural material is (a material that comes from plants, animals or the ground) and what a man-made material is (a natural material that has been modified by man). **Give** the children a health and safety talk.
20 minutes	**Scavenger Hunt**
	The objective of this activity is for children to be able to investigate a range of materials. **Explain** to the class that they are going to investigate a range of materials and that they will be concentrating on touching, feeling, and looking. **Divide** the class into small groups each with an adult supervisor, and provide each group with a list of descriptive words and a bag. Explain that they must now go for a walk and collect objects from around the site that match each of the descriptive words. Remind the children to use their senses.
20 minutes	**Natural Creation**
	The objective of this activity is for children to be able to try out a range of tools and techniques. **Explain** to the class that they are going to use what they collected on their scavenger hunt to make either a necklace or a band. **Provide** each child with a piece of twine, and ask them to strengthen it using the technique of plaiting or twisting. **Explain** to the children that they must attach their findings to their twine in order to decorate their necklace or band. Provide the class with scissors and explain that they can cut or tear their findings and use methods such as tying and twisting to attach them.
20 minutes	**Resource Relay**
	The objective of this activity is for children to be able investigate a range of materials and processes. **Provide** the class with a collection of plant, animal and quarried resources, for example, raffia, wood, cotton, hemp, fur, leather, silk, wool, sponge, metal, coal, granite, chalk and fossil. **Divide** the class into three groups. **Explain** that the first group will be the plant resource group and it is their job to collect the plant resources. The second group are the animal resource group and they have to collect the animal resources and the third group are the quarried resource group and they have to collect the quarried resources. The children must work in pairs taking it in turns to collect the resource. Only when the pair in front has returned can the next pair go. The winning team will be the one who has collected the most resources correctly.

Lesson Content

TIMES	ACTIVITY
40 minutes	**Willow Weaving**
	The objective of this activity is for children to be able to try out a range of tools and techniques.
	Divide the class into small groups and provide each group with a bundle of short pieces of willow. Explain to the groups that they are going to weave their willow to create a small screen.
	Ask the children if they have weaved before and if they know how to weave. Explain that different materials can be woven, for example, thread and paper, and that weaving involves interlacing two sets of materials.
	Demonstrate how to weave the willow.
	Once each group has finished their screen, explain that they can decorate their screen to make it colourful and textured using natural objects from around the site.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about, reiterating what natural and man-made materials are and how different materials can be manipulated using different techniques. Ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Design and Technology
- Science

Follow-up Activity

Back at school the children can investigate different tribes around the world that wear necklaces and bands as part of their custom. The children can imagine that they are all part of their own tribe when they are wearing their necklaces and bands and devise a list of their own customs.

art and design
Picture This

Objectives
- To be able to record from first-hand observation and explore ideas
- To be able to record from imagination and experience and explore ideas
- To be able to try out tools and techniques and apply these to materials and processes, including drawing
- To be able to investigate the possibilities of a range of materials and processes

Year Group
Years 1 & 2 (5 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 A&D/1ab, 2abc, 4ab

Equipment

Camera Action
- Viewfinders*
- Worksheets (A&D2)
- Clipboards*
- Pencils
- Digital camera*

Which tree is this?
- Photographs
- Checklist

Stick to the Story
- Worksheets (A&D3)
- Clipboards*
- Pencils
- Glue

Key Words
Photograph
Picture
Illustration
Collage
Sequence

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Explain** to the class that they are going to explore their local green site. Explain that they will be looking closely at different features, drawing pictures, making a collage and using photography to record their observations. **Give** the children a health and safety talk.
50 minutes	**Camera Action**
	The objective of this activity is for children to be able to record from first-hand observations. **Provide** each child with a viewfinder, worksheet, clipboard and pencil, and provide the class with a digital camera. **Ask** the children to pretend to be cameras taking photographs of the green site. Explain that they must look through their viewfinders, and when they see a scene that they like they must record it in one of the frames on their worksheet by drawing a picture of what they see. **Encourage** the children to explore what happens if they move their viewfinder closer to or further away from a scene that they a drawing. **Ask** the children to use the digital camera to take photographs of some of the scenes that they are recording. **Carry on walking** around the site until each child has drawn six pictures.
20 minutes	**Which tree is this?**
	The objective of this activity is for children to be able to use their imagination and explore ideas. **Prior to the session** the leader must visit the green site and take photographs of different trees. They should be taken of one part of the tree and taken from obscure angles. The leader should keep a checklist to remember which trees they photographed. **Divide** the class into small groups, each with an adult supervisor and provide each group with a selection of the photographs. **Explain** to the groups that they must work out which trees their photographs are of and that they must put them next to the correct trees. Explain that they must try to visualise the whole of an image from a small visual part.
30 minutes	**Stick to the Story**
	The objective of this activity is for children to be able to investigate and try out a range of materials and processes. **Provide** each child with a worksheet, clipboard and pencil, and provide the class with glue. **Tell the class** that the first and last scenes on their storyboard have been completed but it is their task to complete the remaining scenes. **Explain** that they must use the storyboard on their worksheet to represent their visit to their local green site. They must think about the sequence in which different events happened and illustrate the storyboard accordingly. They can draw pictures, make a collage or do a combination of both.

Lesson Content

TIMES	ACTIVITY
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout their session and ask them which different methods they used to record their observations. Ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind children to wash their hands back at school.

Cross-curricular Links

- Design and Technology

Follow-up Activity

Back at school the children can use their different recordings of their observations of the green site to produce a collage. They could cut a picture and a photograph of the same scene in half and join the opposites together. They could also create a virtual tour of the green site using their recordings.

art and design
Mother Nature Designer

Objectives
- To understand the five senses
- To be able to recognise line, shape, colour and texture in natural forms
- To be able to make observations about natural objects
- To be able to create a piece of natural art work

Year Group
Years 1 & 2 (5 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 A&D/1ab, 2ac, 3a, 4ab, 5abcd

Equipment

Earth Walk
- Bags*

Natural Art Collage
- Examples of Andy Goldsworthy's work*
- Digital camera*

Colour Charts
- Colour charts (A&D4)

My Favourite Things
- Worksheets (A&D5)
- Clipboards*
- Pencils
- Coloured pencils

Key Words
Natural
Man-made
Sound
Sight
Smell
Touch

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. Begin the session by talking to the children about their five senses: sound, sight, smell, touch and taste. **Give** the children a health and safety talk, reminding them not to collect creatures or pull up growing plants, as they are living things.
30 minutes	**Earth Walk**
	The objective of this activity is to enable children to understand the five senses, and recognise different lines, shapes, colours and textures. **Inform** the children that they are going on a walk in which they will explore the environment using four of their five senses. **Divide** the class into pairs and provide each pair with a bag for collecting their natural objects. Ensure that the children are collecting objects that are varied in colour, texture, shape etc. The children should be encouraged to use adjectives to describe the items that they collect.
25 minutes	**Natural Art Collage**
	The objective of this activity is for children to be able to create a piece of natural art work. **Ask** the children what they think an artist is? Talk to them briefly about Andy Goldsworthy (he's an environmental sculptor who creates art forms out of natural surroundings. He explores and experiments with various natural materials such as leaves, grass, stones, wood, sand, clay, ice, and snow). Show them some examples of his work. Remaining in the same pairs ask them to create a piece of natural art in a similar style to that of Andy Goldsworthy. **Bring** the class back together, and divide them into two groups. Ask each group to create a larger piece of natural art. Encourage the children to talk about their natural art, asking them why they came up with a particular idea. Provide the class with a digital camera, and allow the children to take photographs of their natural artwork to use as a record of what they did on their visit.
15 minutes	**Colour Charts**
	The objective of this activity is for children to be able to recognise colour in the natural environment. **Tell** the children that they are going on a walk around the site, using their surroundings to explore natural colours. Provide the children with colour charts, and ask them to find natural objects in the environment, which match up to the colours on their chart, for example, leaves, grass and mosses would match up to a green colour chart.

Lesson Content

TIMES	ACTIVITY
15 minutes	**My Favourite Things**
	The objective of this activity is for children to be able to understand their five senses.
	Provide each child with a worksheet, a clipboard, pencil and coloured pencils.
	Ask them to think about what they have done on their visit and how they have used their senses. Demonstrate how to complete the worksheet, and ask them to record their favourite things.
15 minutes	**Colour Game**
	The objective of this game is to allow children to think about colours in the natural environment.
	Allocate four bases in an area of the green site, and allocate the colours brown, green, red and white to each base.
	Explain to the children that when the leader shouts out the name of an object, for example, a holly berry, hawthorn blossom or a twig they must run to the colour base that is the colour of the object. The last children to reach each base, or those that run to the incorrect colour, are out of the game.
	Continue the game until there is a winner.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask them if they can remember what their five senses are. Also ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind children to wash their hands back at school.

Cross-curricular Links

- Science

Follow-up Activity

Back at school take the children on an earth walk in their school grounds to collect some natural objects. Ask them to use the objects that they collect, as well as pieces of fabric, to create a collage. The children can compare this piece of artwork to the one that they produced on the green site, and see what effect the man-made material has on their artwork.

art and design

Can we change places?

Objectives

- To be able to question and make thoughtful observations about why and how sculptors and others work to improve the quality of an environment
- To be able to record from first-hand observations and collect visual and other information to help them to develop their ideas, including using a sketchbook
- To be able to explore ideas for site-specific sculpture

Year Group

Years 3 & 4 (7 to 9 years)

Duration

2 hours

National Curriculum Objectives

KS2 A&D/1abc, 2bc, 3b, 4b

Equipment

Likes and Dislikes

- Red and green flags*

Explore the Green Site

- Paper
- Clipboards*
- Pencils
- Wax crayons
- Coloured pencils
- Digital camera*
- Stapler and staples

Model Design

- Paper
- Clipboards*
- Pencils

Key Words

Environment
Enhance
Detract
Sculpture
Sculptor
Design

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Tell** the children that they are going to be exploring their local green site, and ask them if they know what the word environment means (how and where we live). Ask the class to identify some factors that enhance the quality of an environment, for example, light, cleanliness, visually interesting and pleasing objects or those that detract from the quality, for example, poor light, litter, noise and pollution. **Ask** children to think of an example of how art has changed and improved a space at home, in school or in the local area. **Give** the children a health and safety talk.
25 minutes	**Likes and Dislikes**
	The objective of this activity is for children to be able to ask questions and make thoughtful observations. **Divide** the class into small groups, each with an adult supervisor and provide each group with a red and a green flag. **Explain** to the groups that they must position their red flag in an area where there are features that detract from the quality of the environment and their green flag in an area where there are features that enhance the quality of the environment. Once all of the groups have positioned their flags, bring the class back together and discuss their choices.
45 minutes	**Explore the Green Site**
	The objective of this activity is for children to be able to record from first-hand observations. Remaining in the same groups, explain to the groups that they are going to explore the green site. They can do observational drawings and rubbings, take photographs and with their adult supervisor question members of the public about what they think of the green site. The children can also collect things that remind them of the site and their visit. Provide each group with some paper, a clipboard and a pencil, and provide the class with a selection of wax crayons, coloured pencils and a digital camera. When the children are finished collect in their work and bind it together to form a scrapbook of their recordings.
30 minutes	**Model Design**
	The objective of this activity is for children to be able to explore ideas for site-specific sculptures. **Divide** the children into small groups and ask each group to consider the green site, thinking about how they would represent it with a sculpture. Tell them about an example (Fishponds Wood has a large sculpture made from an old tree trunk, which is of a boy holding three fish). Provide each group with some paper, a clipboard and a pencil and ask them to design a sculpture for the green site. Ask the children to think about how it would improve the site, its audience, the size of the sculpture and the materials they would use to make it.

Lesson Content

TIMES	ACTIVITY
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session, asking them what methods they used to collect information and how they came to a decision regarding the final design of their sculptures. Also ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Design and Technology

Follow-up Activity

Back at school the children can work in their groups and use their designs as a basis for making a small-scale model of their sculpture. They can explore and experiment with different techniques and materials and match these to the purpose of their work.

Scavenger Hunt

Have fun foraging around the green site looking for objects that match the descriptive words below:

Soft

Hard

Rough

Smooth

Shiny

DULL

Wet

DRY

Green

Brown

Black

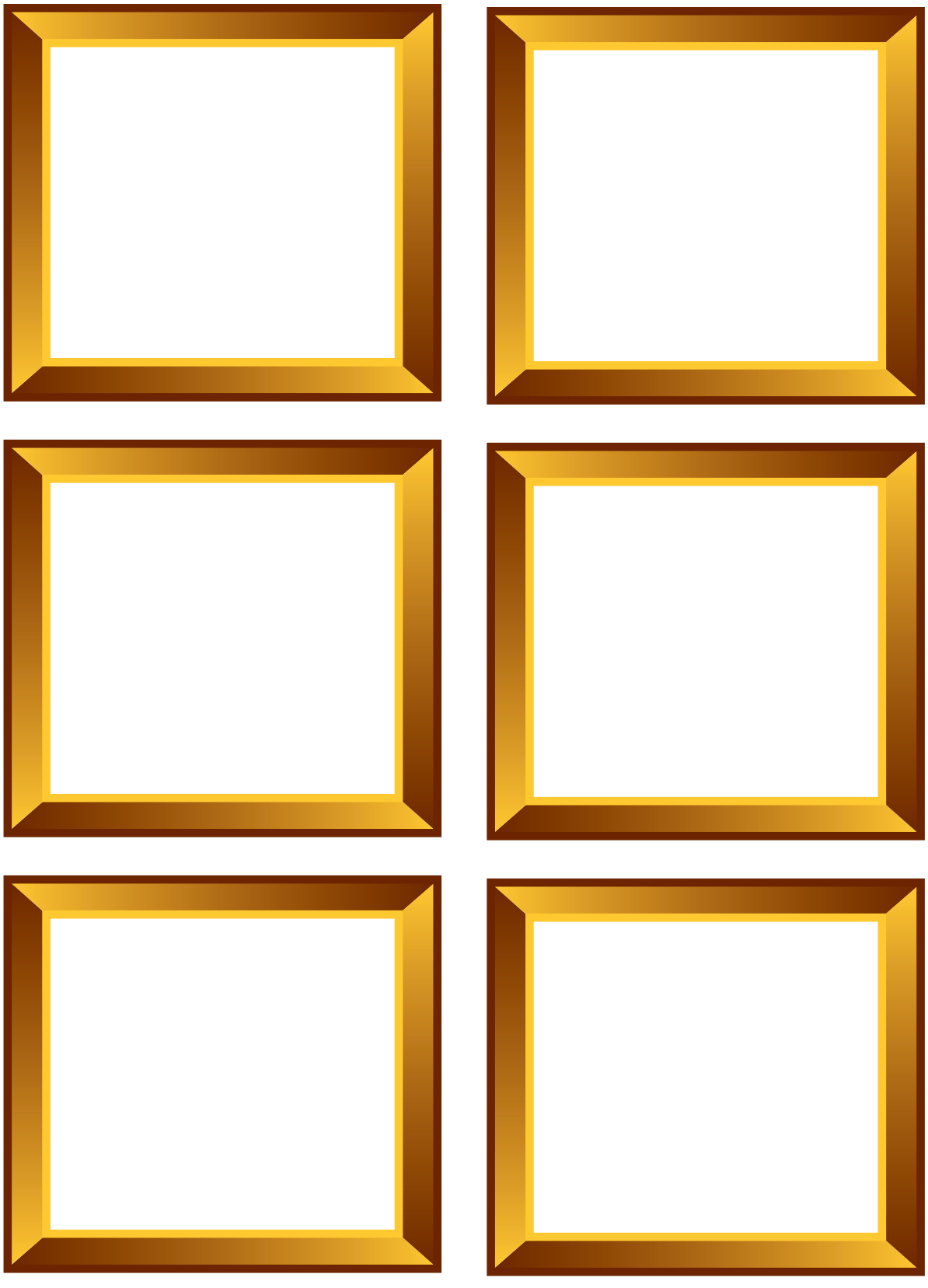
Yellow

round

FLAT

Camera Action!

Have fun filling in the picture frames below with drawings of different scenes from around the green site.

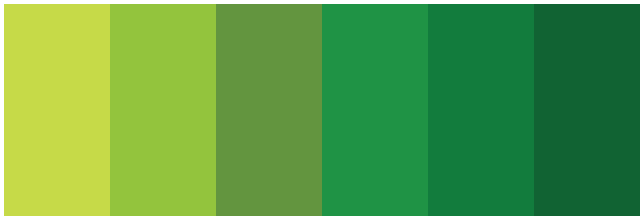


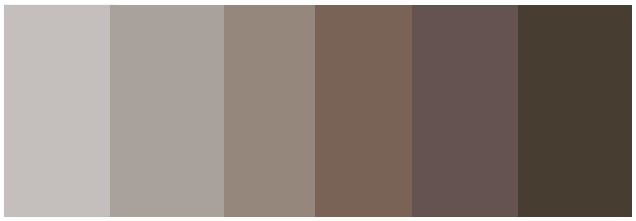
My Storyboard...

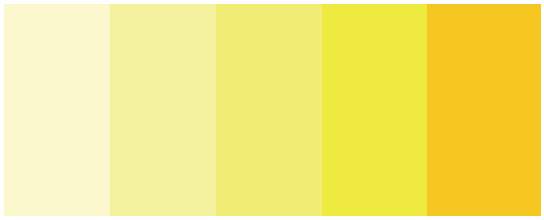
Think about what you have done on your visit to the green site. Fill in the empty boxes of the storyboard to show the sequence of your favourite activities.

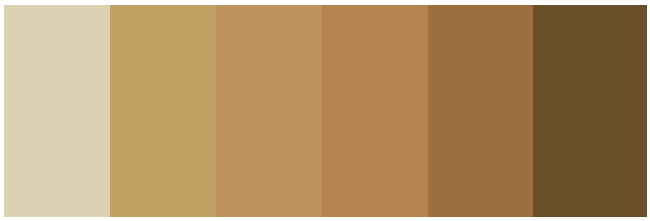
3.	6. Goodbye 
2.	5.
1. Hello 	4.

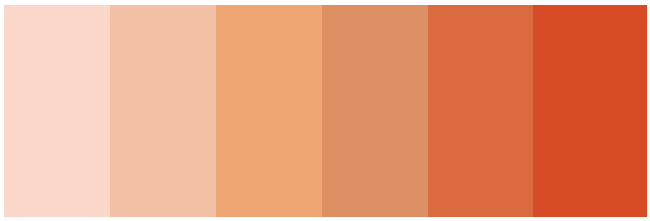
Master Copy: **Colour Charts**

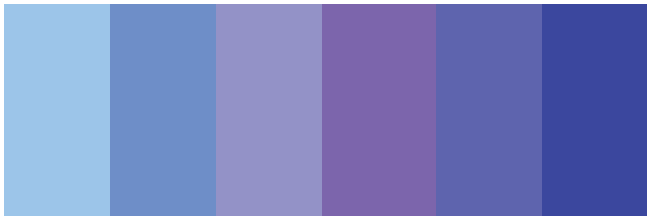












My favourite things...

What are your favourite things?

Draw pictures of your favourite things from your visit to the green site in the boxes below.

The best thing I smelt...

The best thing I saw...

The best thing I felt...

The best thing I heard...

pshe and citizenship

pshe and citizenship
Animals and Us

Objectives
- To know that all animals have needs
- To understand that all animals should be treated with respect
- To understand that humans have a responsibility to ensure the well-being of animals, including minibeasts
- To know how to develop ground rules for wildlife areas

Year Group
Years 1 & 2 (5 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 PSHE/1ab, 2abcdeg, 4b, 5acdeg

Equipment

Animal Homes
- Cards (C1)

Minibeast Hunt
- Bug jars*
- Paintbrushes*

Stone Animals
- Googly eyes

Ground Rules
- Pictures (C2)

Happy Animals
- Toy animal*

Key Words
Animals
Needs
Food
Water
Shelter
Care
Responsibility
Rules

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Inform** the class that they will be spending time looking for different animals that live on the green site. **Ask** them which animals they expect to find, and then discuss what the animals need in order to survive, for example, food, water, shelter, air and the correct habitat. **Give** the children a health and safety talk.
25 minutes	**Animal Homes**
	The objective of this activity is for children to learn that all animals have needs. **Divide** the class into groups of three. Provide each group with an Animal Card. Each card will contain a name, a picture and some information about a particular animal that might live on the green site. Each group must then, in turn, read out the information on their card. They must then find a suitable home for their animal, and indicate this with their card. As a class, discuss if all the groups found suitable homes and why those particular homes were chosen.
20 minutes	**Minibeast Hunt**
	The objective of this activity is for children to understand that all animals should be treated with respect. **Inform** the children that they will be searching for minibeasts. Divide the class into pairs and provide each pair with a bug jar and paintbrush. **Ask** the children what they think the rules are when looking for minibeasts: to be gentle, not to hurt them, and to put them back where they were found. Once the children have observed a minibeast, ask them to let it go and not to re-capture it. Remind the children not to catch minibeasts, which are too big for their bug jars. While the children are hunting, remind them to be gentle, to try not to hurt the minibeast, and to put them back in their correct habitat. Ask the children what would happen to the minibeasts if they failed to follow these rules. **Bring** the class back together and discuss the different minibeasts that were found.
20 minutes	**Stone Animals**
	The objective of this activity is for children to understand that humans have a responsibility to ensure the well-being of animals, including minibeasts. **Explain** to the class that they are each going to create a pet minibeast. Tell them they must find a suitable stone, and provide them with a pair of googly eyes to stick onto it. Once the children have done this, they must care for their pet minibeast by finding them suitable homes and some food to eat. Suggest ideas of the kinds of things their pets might eat, the places they might live, and with whom they might like to live. **Finally**, discuss as a class why each child has chosen a particular area for their pet.

Lesson Content

TIMES	ACTIVITY
20 minutes	**Ground Rules**
	The objective of this game is for children to understand that actions by humans can positively and negatively affect animals.
	The leader will begin by allocating a good and a bad area.
	Explain to the class that the leader will show them cards illustrating different human actions, for example, recycling, walking and graffiti.
	The children must decide whether the actions are good or bad for the environment and then run to the corresponding area.
	Once the children have made their decisions, discuss them as a class and talk about how the environment and the animals that live there would be affected.
20 minutes	**Happy Animals**
	The objective of this game is for children to know that animals have needs.
	Ask the class to stand in a circle, and ask them to think about the things that they need to survive, for example, food and water.
	The leader will begin by saying "I need a place to sleep" and then ask each child in turn to tell the group what they need.
	Provide the class with a toy animal and ask the children to think about what the animal would need to survive. Ask the children if they think the animal would need anything different to us, or vice versa.
10 minutes	**Conclusion**
	Discuss with the class the key topics that were discussed throughout the session and how humans can be responsible for all animals including minibeasts. Ask the children if they have any pets, and if so, how they care for them. Ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Science

Follow-up Activity

Back in class the children can design posters that illustrate the rules for caring for the local environment and the animals that live there. They could either focus on one particular subject, for example, litter or graffiti or they could do a poster illustrating multiple rules on a chequered piece of paper.

pshe and citizenship

Developing School Grounds (Part 1)

Objectives

- To be able to reflect on and talk about what they like and dislike
- To be able to record key geographical features on an outline map
- To understand the importance of consultation and listening to other peoples views and ideas
- To be able to generate and explore ideas
- To be able to communicate their ideas to others about the costs and limitations of different plans
- To be able to engage in group discussions for a wider range of purposes

Year Group

Years 1 to 6 (5 to 11 years)

Duration

2 hours

National Curriculum Objectives

KS1 PSHE/1abe, 2ag, 4b, 5cd

KS2 PSHE/1ac, 5acd

Equipment

The Playground

- Maps of the school grounds
- Pencils
- Clipboards*

Likes and Dislikes

- Worksheets (C3)
- Clipboards*
- Pencils

The Big Idea

- Maps of the school grounds
- Coloured pencils
- Large map of the school grounds
- Coloured pens

Key Words

Environment
Feature
Facilities
Locality
Place
Plan
Discuss
Consult
Negotiate
Communicate

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Explain** to them that they are going to plan different ways of improving their playground, and after class discussions they are going to get the chance to implement some of the changes. **Give** the children a health and safety talk.
40 minutes	**The Playground**
	The objective of this activity is for children to be able to record key geographical features on a map. **Divide** the class into small groups and provide each group with a map of the school grounds, a clipboard and a pencil. **Ask** the groups to walk around their school grounds marking on the map the different features and facilities that they can see.
20 minutes	**Likes and Dislikes**
	The objective of this activity is for children to be able reflect on and talk about what they like and dislike. Provide each group with a clipboard, a worksheet and a pencil, and ask the groups to record whether they like or dislike the different features and facilities, and think about the reasons why. **Bring** the class back together and discuss with them their likes and dislikes.
40 minutes	**The Big Idea**
	The objective of this activity is for children to understand the importance of consultation and listening, to be able to generate and explore ideas, to be able to communicate ideas and to engage in group discussions. As a class, discuss different ways of improving their school grounds, for example, create a bird feeding area, plant trees, sow seeds, make insect homes, build a seating area, plant a butterfly garden or build habitat piles. **Discuss** with the class the limitations of some of their ideas, for example, cost and time, and the benefits of some of their ideas, for example, attracting more wildlife. Make a list of the agreed changes for the children to see. Remaining in the same groups, provide them with another map of their school grounds and colouring pencils, and ask them to illustrate their map with the changes they would like to implement, and where they would like to see them happen. Collect in the illustrated maps, and explain to the children that you will now, using ideas from all of the maps, decide which changes will be made and where they will happen. The leader must produce a large map with lots of coloured illustrations showing the changes that the class will make and where in the school grounds they will happen. Keep the map on display so that the class can keep track of the progress.

Lesson Content

TIMES	ACTIVITY
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session, reiterating which ideas will be implemented in their school grounds.
	NOTE: Remind children to wash their hands.

Cross-curricular Links

- Geography
- Design and Technology

pshe and citizenship

Developing School Grounds (Part 2)

Objectives

- To be able to develop their role as members of the school and the wider community
- To understand the importance of consultation and listening to other peoples views and ideas
- To be able to compare and contrast their original ideas and expectations with the eventual outcome
- To be able to reflect on how they contributed to and participated in the project

Year Group

Years 1 to 6 (5 to 11 years)

Duration

2 hours

National Curriculum Objectives

KS1 PSHE/1abe, 2ag, 4b, 5cd

KS2 PSHE/1ac, 5acd

Equipment

The Hard Work

- Resources*
- Tools*

Key Words

Environment
Feature
Facilities
Locality
Place
Plan
Discuss
Consult
Negotiate
Communicate

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Reintroduce yourself to the class and remind them of what was discussed and decided as a class during the last session. Show the class the large map, which clearly illustrates the changes that the class are going to make to their school grounds. **Divide** the class into groups each with an adult supervisor. Allocate tasks (create a bird feeding area/plant trees/sow seeds/make insect homes/build a seating area/plant a butterfly garden/build habitat piles) to each group and provide them with the resources and tools (trees/seeds/plants/bird food/spade/trowel/hammer etc.) that the task requires. **Give** the children a health and safety talk.
100 minutes	**The Hard Work**
	The objective of this activity is for children to be able to develop their role, to understand the importance of consultation and listening, to be able to compare and contrast their original ideas with the result and to be able to reflect on how they contributed to and participated in the project. While all of the groups are working, visit each group in turn offering advice and assistance. Ensure that the supervisors and children know what they are doing and are using the tools correctly.
10 minutes	**Conclusion**
	Bring the class back together and discuss with the class the key points that took place throughout the session. Ask them if they are pleased with the results and if the results are what they expected. Ask the children what they enjoyed about the topic and their session outside.
	NOTE: Remind the children to wash their hands back at school

Cross-curricular Links

- Geography
- Design and Technology

Follow-up Activity

In class the children can produce a management plan for the improvements they have made to their school grounds. They could use books and the internet to carry out research to find out how and when they need to manage the improvements.

pshe and citizenship

Respect for Property

Objectives

- To be able to consider the consequences of lack of respect for school property
- To know how to respect property in the community
- To be able to reflect on the consequences of vandalism for different members of the community
- To know about how resources are used and the implications for individuals and communities

Year Group

Years 3 to 6 (7 to 11 years)

Duration

2 hours

National Curriculum Objectives

KS2 PSHE/1a, 2abcd, 4a

Equipment

Respect in the Local Area

- Worksheets (C4)
- Clipboards*
- Pencils
- Digital Camera*

Respect on the Green Site

- Red and green flags*

Order of Importance

- Worksheets (C5)
- Clipboards*
- Pencils

Key Words

Right
Wrong
Vandalism
Consequences
Respect
Sharing

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Talk** to the children about respect and what it means to respect and to disrespect school property. **Ask** the children how they feel when other children don't respect their property, and if they can think of any examples of when other people have disrespected their property. **Give** the children a health and safety talk.
20 minutes	**Respect in School**
	The objective of this activity is for children to be able to consider the consequences of a lack of respect for school property. **Take** the class on a walk around the school grounds looking for signs of a lack of respect, for example, graffiti, litter or a smashed window and ask them how it makes them feel, for example, unhappy, angry and disappointed.
40 minutes	**Respect in the Local Area**
	The objective of this activity is for children to reflect on the consequences of vandalism. **Divide** the class into small groups and provide each group with a worksheet, clipboard and pencil. Provide the class with a digital camera. **Take** the class on a walk to their local green site and ask them to record any signs that show a lack of respect in their local area. The children can also take photographs of any signs of disrespect. **Talk** to the class about their recordings, discussing who may have carried out the acts of disrespect and who may be affected by them.
25 minutes	**Respect on the Green Site**
	The objective of this activity is for children to know how to respect property in the community. **Divide** the class into small groups, each with an adult supervisor and provide each group with a red and a green flag. Explain to the groups that they must position their red flag in an area where there are signs of a lack of respect and their green flag in an area where there are signs of respect. **Once** all of the groups have positioned their flags, bring the class back together. Take the children on a walk around the site allowing each group to talk about the signs of respect or lack of respect in the different areas.

Lesson Content

TIMES	ACTIVITY
15 minutes	**Order of Importance**
	The objective of this activity is for children to know how resources are used and the implications this causes.
	Ask the children to think about five areas within the green site where there are signs of a lack of respect and that need improving.
	Provide the children with a worksheet, clipboard and pencil and ask them to think about, and to put into order the areas of the green site that need improving from the most important to the least. Encourage the children to support their choices with reasons, for example, looks unsightly and dangerous.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Remind the children that by showing respect to other people's property they are being good citizens. Ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Geography

Follow-up Activity

Back at school the children can use the photographs they took during the session to create a large annotated map of their local area. They could use the map as a starting point for a discussion about the changes that they would like to see take place to improve their local area. The children could carry out some research to find out who owns or manages the green site and send a copy of their map to them with a supporting letter asking for the changes to be considered.

Master Copy: **Animal Homes**

Rabbit

I like to live where I can dig my burrow close to shelter and open grass. I eat grass and other leaves.

RICHARD BURKMAR

Snail

I like to live on plants and trees. I eat leaves.

PHILIP PRECEY

Fox

I like to live in woodlands and parks. I eat mice, rabbits and even food waste from humans.

ELLIOT SMITH

Woodpecker

I like to live in woodlands. I peck the wood to find beetles and grubs beneath the bark.

JO MEAYS

Worm

I like to live in the soil. I eat decaying leaves

NATALIE ROGERS

Bee

I like to live near lots of flowers so that I can feed. In winter I spend time in small holes or burrows.

Dragonfly

I like to live near water so that I can catch flies over the water.

JO MEAYS

Butterfly

I like to live near flowers so that I can feed on the nectar.

Goose

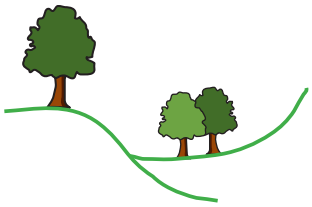
I like to live near ponds, streams or rivers. I also need grass to eat.

IAN ROSE

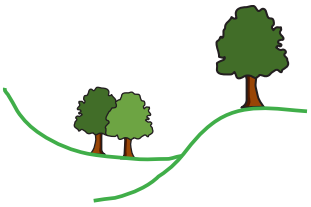
Hedgehog

I like to live in woodlands, hedges or piles of logs. I eat worms, beetles and slugs.

RICHARD BURKMAR



Master Copy: **Ground Rules**



Feeding the birds

Growing plants and vegetables

Recycling

Planting trees

Chopping down trees

Walking and cycling

Pollution

Picking wildflowers

Litter

Graffiti

Likes and Dislikes

Have fun exploring your school grounds.

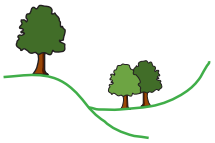
Record in the table below your likes and dislikes.

Likes 	Dislikes 

Respect in the Local Area

Have fun exploring your local area.
Record in the table below any signs of disrespect that you see, and think about the culprit and the victim involved.

Sign of Disrespect	The Culprit	The Victim



Order of Importance

Have fun exploring your local green site.
Record in the table below five signs of disrespect that you see, and think about the order of importance to improve them.

Give reasons for your choices.

	Sign of Disrespect	Order of Importance	Reasons
1			
2			
3			
4			
5			

design and technology

design and technology
Playgrounds

Objectives
- To know about framework and structures
- To be able to make observations about a playground
- To be able to design and make a model of an item of playground equipment
- To be able to use a limited range of materials and techniques to assemble and join components to make realistic models of playground equipment
- To know the names of mathematical 2-D shapes
- To be able to recognise mathematical 2-D shapes

Year Group
Years 1 & 2 (5 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 D&T/1abce, 2ad, 3a, 5bc

Equipment

Structured Play
- Digital camera*

Designing Playgrounds
- Clipboards*
- Paper
- Coloured pencils

Making Models
- Examples of models
- Scissors
- Glue
- String
- Glue spreaders
- Split pins
- Straws and bendy straws
- Card and corrugated card

Playground Shapes
- Laminated pictures of playgrounds*
- Dry wipe pens*

Key Words
Framework
Structure
Swing
Slide
Roundabout
See saw
Climbing frame
2-D shapes
Circle
Square
Triangle
Rectangle

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Talk** to the class about frameworks and structures. Discuss the idea of playgrounds with the children, asking them why they think they exist and whether they think they are useful. Talk about the materials that are used, the reasons they are used and how they have been joined together. **Give** the children a health and safety talk.
30 minutes	**Structured Play**
	The objective of this activity is for children to learn about frameworks and structures and to be able to make observations of a playground. **Divide** the class into small groups each with an adult supervisor and provide the class with a digital camera. To start, allocate each group a different piece of playground equipment to play on. While the children are playing, encourage them to talk about the points discussed in the introduction. Allow the children to move around the playground, playing on all of the equipment. The children can take it in turns to use the digital camera to take photographs of the playground equipment.
20 minutes	**Designing Playgrounds**
	The objective of this activity is for children to be able to design an item of playground equipment. **Talk** to the class about the playground and ask them to choose their favourite piece of equipment. **Provide** the children with a clipboard, paper and some coloured pencils and ask them to draw a picture of their favourite piece of play equipment.
35 minutes	**Making Models**
	The objective of this activity is for children to be able to make a model of an item of playground equipment and to be able to use materials and techniques to assemble and join components. Inside the building, provide the class with a selection of art materials and show them some examples of models of playground equipment. **Explain** to them that they must make their own models of playground equipment using the materials provided.

Lesson Content

TIMES	ACTIVITY
15 minutes	**Playground Shapes**
	The objective of this activity if for children to be able to learn the names of and be able to recognise 2-D mathematical shapes.
	Divide the class into pairs and provide each pair with a laminated picture of a playground, and a dry wipe pen.
	Ask the children to identify all of the circles, squares, rectangles and triangles in their picture, and highlight them using their pen.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session, recapping what makes a strong structure. Also ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Science
- Maths
- Art and Design

Follow-up Activity

Back at school the children can use the photographs they took and the pictures they drew of the play equipment and create a mosaic of their ideal playground using the photographs and pictures of their favourite equipment. They could also use the photographs and pictures to create a scrapbook of their visit to their local green site.

NOTE:
This lesson can be delivered at Hull Road Park, Rawcliffe Country Park, Rowntree Park, St. Nicholas Fields Local Nature Reserve and West Bank Park.

design and technology
Musical Instruments

Objectives
- To be able to investigate, disassemble and evaluate a range of musical instruments in order to learn how they function
- To know how the working characteristics of materials relate to the ways materials are used
- To be able to select appropriate materials, tools and techniques
- To be able to join and combine materials and components accurately in temporary ways
- To be able to investigate a range of materials
- To be able to identify a purpose for their instrument

Year Group
Year 5 (9 to 10 years)

Duration
2 hours

National Curriculum Objectives
KS2 D&T/2acd, 4ab

Equipment

Investigating Instruments
- Worksheets (D&T 1)
- Clipboards*
- Pencils
- Examples of instruments*

Natural Instruments
- Bags*
- Cups
- Bowls
- Elastic bands
- Kitchen roll
- Cellotape

Key Words
Names of musical instruments
Sound (high/medium/low)
Investigate

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Ask** the class to think about and name some different types of musical instruments, for example, piano, recorder, violin and drums, and how the sounds are made, for example, wind, percussion and string. **Give** the children a health and safety talk.
20 minutes	**Investigating Instruments**
	The objective of this activity is for children to investigate, disassemble and evaluate a range of musical instruments, and to know how the working characteristics of materials relate to the way they are used. **Divide** the class into small groups, and provide each group with a worksheet, clipboard and pencil. Also, provide a selection of instruments or pictures of instruments and ask them to investigate them thinking about how each of them makes a sound. **Ask** each group to complete the worksheet with their thoughts and evaluations.
20 minutes	**Sounds around Us**
	The objective of this activity is for children to be able to investigate a range of materials. **Divide** the class into small groups, and ask each group to investigate the sounds around them. Explain to them that they are going to explore how they can make sounds in their natural environment, for example, rustling leaves, running sticks along railings, and banging pebbles and logs together.
25 minutes	**Natural Instruments**
	To be able to select appropriate materials, tools and techniques and to be able to join and combine materials. **Explain** to the children that they are going to make their own natural musical instruments to play in a woodland orchestra. **Ask** the children to use the ideas that they have just considered and provide them with a bag for collecting some natural objects from around the green site. Once the children have collected their natural objects, provide them with some man-made materials to complete their musical instruments.

Lesson Content

TIMES	ACTIVITY
25 minutes	**Woodland Orchestra**
	The objective of this activity is for children to be able to identify a purpose for their instrument.
	Once the children have made their instruments, divide the class into groups of four and discuss the basic one to four musical count. Discuss variations around it, one and three counts, two and four counts, one and two and three and four counts. **Ask** the groups to create a piece of music that includes all of the instruments in their group. **Bring** the class back together and ask each group in turn to perform their piece to the rest of the class. To finish the performance ask the class to perform as one group, layering all of the pieces together.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Ask them if they would change anything if they did the musical instruments again and ask them what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Science

Follow-up Activity

Back at school the children can investigate musical instruments from different countries and cultures around the world. The children can decorate their musical instruments basing their designs on their findings from their investigations.

design and technology
Shelters

Objectives
- To be able to relate the way things work to their intended purpose
- To know how materials and components have been used
- To understand how structures can fail when loaded and the techniques for reinforcing and strengthening them
- To be able to join and combine materials and components accurately in temporary and permanent ways
- To be able to develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of construction if first attempts fail
- To be able to evaluate their products, identifying their strengths and areas for development, and carrying out the appropriate tests

Year Group
Year 6 (10 to 11 years)

Duration
2 hours

National Curriculum Objectives
KS2 D&T/1abcd, 2d, 3ab, 4a, 5a

Equipment
Building Bridges
- Straws
- Paper
- Cellotape
- Weights*

Investigating Structures
- Pictures of shelters*

Shelter Building
- Tarpaulins*

Key Words
Structure
Shelter
Framework
Construct
Strengthen

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Explain** to the class that they are going to be learning all about frameworks and structures, and that they are going to get the opportunity to make their own woodland shelter. **Give** the children a health and safety talk.
30 minutes	**Building Bridges**
	The objective of this activity is for children to understand how structures can fail and to be able to join and combine materials and components. **Divide** the class into small groups and provide each group with straws, paper and Cellotape. **Explain** to the class that their challenge is to build a bridge using their materials, and that their bridges will be tested to see which is the strongest. The children could also build a bridge between two logs using sticks, which could also be tested. After 20 minutes bring the class back together and test each bridge using the weights. Discuss what makes a structure strong, and how it can be achieved.
20 minutes	**Investigating Structures**
	The objective of this activity is for children to be able to relate the way things work to their intended purpose and to know how materials and components have been used. **Take** the class on a walk around the green site looking for different structures, for example, a dipping platform. Ask each group to think about the structures that they see and discuss their purpose, how they are constructed, what they are made from and if they serve their purpose. **Divide** the class into small groups and provide each group with a selection of pictures of structures and again ask them to think about their purpose, how they are constructed, what they are made from and if they serve their purpose. **Bring** the class back together and discuss their thoughts and ideas.

Lesson Content

TIMES	ACTIVITY
50 minutes	**Shelter Building**
	The objective of this activity is for children to be able join and combine materials and components, develop a clear idea of what has to be done and to be able to evaluate their products.
	Divide the class into small groups. Give the children a hypothetical situation, for example, pretend that they are stranded in the wood over night, and explain that they must build a shelter.
	Discuss with the children why they need a shelter, for example, to keep warm and dry, and how they can best achieve this, for example, by building a safe and well constructed structure.
	Set limits on the area that the children can use to collect materials, and a time limit of 30 minutes.
	While the groups are building their shelters, visit the groups offering advice when needed and provide each group with a tarpaulin to finish off their shelter.
	After 30 minutes, bring the class back together and as a class visit each shelter. Test them for safety and then encourage each group in turn to try out their own shelter. Discuss with each group the strengths of their shelter.
	Explain to the class, that in their groups they must now safely dismantle their shelters so that they are not a potential risk to members of the public.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Ask them, now that they have had some practice at building structures, would they change anything if they did the same activity again. Ask them what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Science

Follow-up Activity

Back at school the children can create small scale models of the structures that they built in the woodland. The children can experiment with various man-made substances and materials in order to strengthen their models.

Investigating Instruments

Have fun exploring the instruments.
Think about and record in the table how materials are constructed to make effective instruments.

Instrument	How does it make a sound?	What material is it made from?	What are the properties of the material?	How is the sound amplified?
	*Percussion*	*Wooden sticks, wooden shell and plastic skin*	*Hard, rigid sticks and shell. Tight but flexible skin*	*Tight skin that vibrates. Depth and size of shell increases sound*

english

english
Favourite Things

Objectives
- To be able to experiment with and build new stores of words to communicate in different contexts
- To be able to listen with sustained concentration, building new stores of words in different contexts
- To be able to listen to and follow instructions accurately, asking for help and clarification if necessary
- To be able to take it in turns to speak, listen to others' suggestions and talk about what they are going to do
- To be able to convey information and ideas in simple non-narrative forms

Year Group
Year 1 (5 to 6 years)

Duration
2 hours

National Curriculum Objectives
KS1 English En1/2a, 3acd, 8bcd, 9ab, 10b En3/1ab, 2ab, 9acd

Equipment

Favourite Places
- Word box for a favourite place (En1)
- Objects from a favourite place
- Paper
- Clipboards*
- Coloured pencils

Favourite Animals
- Bug jars*
- Paintbrushes*
- Paper
- Clipboards*
- Coloured pencils

Favourite Bit
- Paper
- Clipboards*
- Pencils

Key Words
Favourite
Minibeast

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Ask** the children if they know what the word 'favourite' means (something regarded with special favour and liking, or something preferred above all others). Ask them if they can describe the word. **Give** the children a health and safety talk.
30 minutes	**Favourite Places**
	The objective of this activity is for children to be able to experiment with and build new stores of words to communicate in different contexts and to be able to listen with sustained concentration, building new stores of words in different contexts. **Talk** to the class about a favourite place and have a word box prepared for the children to look at containing lots of words and some objects that represent your favourite place. Tell the class all about the place using the word box and objects. **Divide** the class into small groups, each with an adult supervisor and provide each group with paper, a clipboard and coloured pencils. **Ask** the groups to think about and discuss their favourite places. They may be the same or different to other members within their group. Some of the places may be inside some may be outside. While the children are discussing their favourite places, ask them to create a word box with help from their adult supervisor. Explain to the children that their word box must contain lots of words that describe their favourite places. **Bring** the class back together and ask each group to hold up their word box. As a class look at the different words, and discuss how many words have been used more than once to describe their favourite places.
50 minutes	**Favourite Animals**
	The objective of this activity is for children to be able to experiment with and build new stores of words to communicate in different contexts, be able to listen to and follow instructions accurately, asking for help and clarification if necessary and to be able to convey information and ideas in simple non-narrative forms. **Talk** to the class about the green site, and ask them to consider whose favourite place this might be (birds and animals). Ask them to think about why birds and animals might favour this place, for example, sheltered, safe and lots of food. **Inform** the children that they will be searching for minibeasts, reminding them that they may be difficult to find as they are very small. **Divide** the class into small groups, each with an adult supervisor and provide each group with bug jars and paintbrushes. Explain that when they find a minibeast they should transfer it carefully into their jar using the paintbrush so as not to damage them. Enforce the idea of handling all of the creatures with great care and respect; put the minibeasts back from where they were collected, gently place logs and stones back in their place, don't collect minibeasts that are too big for the jars.

Lesson Content

TIMES	ACTIVITY
	Whilst searching for minibeasts, ask the groups to think about which minibeast is their favourite and why. After 20 minutes, stop the class and provide each group with paper, a clipboard and coloured pencils. Ask them to draw a picture of their favourite minibeast, and to label it with descriptive information regarding its name, size, shape, colour, different body parts etc.
20 minutes	**Favourite Bit**
	The objective of this activity is for children to be able to take it turns to speak, listen to others' suggestions and talk about what they are going to do. **Divide** the class into small groups, each with an adult supervisor and provide each group with paper, a clipboard and a pencil. Ask the children to think about what they have done during their visit to the green site. With help from their adult supervisor ask them to write down in the correct sequence five things they have done during the day. Once the children have completed this, ask them each to choose their favourite activity. In turns, the children can read aloud to the rest of the class their favourite part of their visit.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Science

english
Motion

Objectives
- To be able to explain ideas and processes using imaginative and adventurous vocabulary and non-verbal gestures to support communication
- To be able to listen to others in class, ask relevant questions and follow instructions
- To be able to make adventurous word and language choices appropriate to the style and purpose of the text

Year Group
Year 2 (6 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 English En1/2af, 3abce, 4a, 8bd, 9ab, 10b, 11a En2/1cj En3/1acd, 2abd, 9b, 12

Equipment

People on the Move
- Paper
- Clipboards*
- Pencils

Animals on the Move
- Bug jars*
- Paintbrushes*
- Worksheets (En2)
- Clipboards*
- Pencils

Scavenger Hunt
- Lists of natural objects (En3)
- Bags*

Animal Alliteration
- Worksheets (En4)
- Paper
- Clipboards*
- Pencils

Key Words
Motion
Alliteration

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Explain** to the children that plants and animals are living things; they grow, reproduce, move, need nutrients and are sensitive. **Ask** the children if they know what the word 'motion', or 'to move' means (any physical movement or change in position or place). **Give** the children a health and safety talk.
20 minutes	**People on the Move**
	The objective of this activity is for children to be able to explain ideas and processes using imaginative and adventurous vocabulary and non-verbal gestures to support communication. **Divide** the class into small groups, each with an adult supervisor, and provide each group with paper, a clipboard and a pencil. **Ask** each group to think about the different ways in which people can move, for example, walking, tip toeing and skipping etc. and to record it onto their piece of paper. Once the children have completed this, ask them each to choose one of the methods of movement that they have recorded and to act it out to the rest of the class.
40 minutes	**Animals on the Move**
	The objective of this activity is for children to be able to explain ideas and processes using imaginative and adventurous vocabulary and non-verbal gestures to support communication and to be able to listen to others in class, ask relevant questions and follow instructions. **Inform** the children that they will be searching for minibeasts, reminding them that they may be difficult to find, as they are very small. **Divide** the class into small groups, each with an adult supervisor and provide each group with bug jars and paintbrushes. Explain that when they find a minibeast they should transfer it carefully into their jar using the paintbrush so as not to damage them. Enforce the idea of handling all of the creatures with great care and respect; put the minibeasts back from where they were collected, gently place logs and stones back in their place, don't collect minibeasts that are too big for the jars. Provide each group with a worksheet, clipboard and pencil. Demonstrate to the class how to complete the worksheet and ask them to record in chronological order the minibeasts that they find and how each one moves. Then ask them to think of an alternative word for how each minibeast moves that would not change the meaning of the original word.

Lesson Content

TIMES	ACTIVITY
20 minutes	**Scavenger Hunt**
	The objective of this activity is for children to be able to listen to others in class, ask relevant questions and follow instructions.
	Talk to the children about alliteration, explaining that alliteration is the name for repeating sounds in words, for example, soft, slushy snow.
	Explain to the class about their five senses and that they are important in order to learn about different things. Tell the children that they will be concentrating on touching, feeling, and looking.
	Divide the class into small groups each with an adult supervisor, and provide each group with a list of natural objects, which have all been described using alliteration, and a bag. Explain that they must now go for a walk and collect the objects from around the site that match their descriptions.
20 minutes	**Animal Alliteration**
	The objective of this activity is for children to be able to make adventurous word and language choices appropriate to the style and purpose of the text.
	Divide the class into small groups, each with an adult supervisor and provide each child with a worksheet, clipboard and pencil.
	Explain to the children that they must complete the worksheet. Demonstrate to the class how to complete the worksheet; asking them to think of an animal that begins with the first letter of their name, and then an adjective to describe the animal, a verb to say how the animal moves and finally an adverb to describe how it moves, and then ask them to put the words together to form a simple sentence, for example, Vicky's big vulture glides effortlessly.
	Once the children have completed this provide the groups with paper and within their groups ask them to use their simple sentences to create a poem. The children can read-aloud their poems to the rest of the class.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Science

english
Making Trails

Objectives
- To be able to follow up others' points and show whether they agree or disagree in whole-class discussions
- To be able to select and use a range of technical and descriptive vocabulary
- To be able to compose sentences using adjectives, verbs and nouns for precision, clarity and impact

Year Group
Year 3 (7 to 8 years)

Duration
2 hours

National Curriculum Objectives
KS2 English En1/2be, 3ac, 8a, 9ac, 10a En2/3ac, 4i En3/1abe, 2abf, 7a, 9b, 12

Equipment

Scavenger Hunt
- List of adjectives (En5)
- Bags*

Making a Trail
- Maps of the green site
- Paper
- Clipboards*
- Pencils

Shape Poems
- Paper
- Clipboards*
- Pencils
- Coloured pencils

Key Words
Adjectives
Calligrams

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Talk** to the children about adjectives. Tell them that they are describing words that tell us more about a person, place or an object. Ensure that the children do not confuse adjectives with adverbs. Adverbs describe actions rather than people, places and objects. **Give** the children a health and safety talk.
20 minutes	**Scavenger Hunt**
	The objective of this activity is for children to be able to select and use a range of technical and descriptive vocabulary. **Explain** to the class about their five senses and that they are important in order to learn about different things. Tell the children that they will be concentrating on touching, feeling, and looking. **Divide** the class into small groups each with an adult supervisor, and provide each group with a list of adjectives and a bag. Explain that they must now go for a walk and collect objects from around the site that match each of the adjectives, remembering to use their senses.
50 minutes	**Making a Trail**
	The objective of this activity is for children to be able to follow up others' points and show whether they agree or disagree in whole-class discussions, to be able to select and use a range of technical and descriptive vocabulary and to be able to compose sentences using adjectives, verbs and nouns for precision, clarity and impact. **Divide** the class into four groups, each with an adult supervisor and provide each group with a map of the green site, paper, a clipboard and pencil. **Explain** to the groups that they must walk around the green site, marking on their map the route they take and also annotating their map with any words that can be used to describe their route. The groups must also stop at three chosen areas and write down a short precise description of the area (there is a long straight path, we are under the leaf canopy of an Oak tree, we can see a decaying log etc.). Each group must then keep their own map and give their short descriptions to another group so that they can try and locate each others chosen areas using the descriptions. Once each group has located the other group's areas, they should discuss the results to see if they are correct. Groups may give suggestions of how the descriptions could have been more precise.

Lesson Content

TIMES	ACTIVITY
30 minutes	**Shape Poems**
	The objective of this activity is for children to be able to compose sentences using adjectives, verbs and nouns for precision, clarity and impact.
	Remaining in the same groups, provide each group with paper, a clipboard, pencil and coloured pencils. Explain to them that they are going to use the words that they wrote on their maps describing their route to create some calligrams (words that are written in a way so that their meanings are echoed in the design). Show them some examples. **Explain** to the class that calligrams can be made up of one word, a phrase or a poem and that they are now going to write a short poem about their route around the green site. Once they have written their poem, they have to present it in a way that represents its content. They may then choose to trace the route that they walked on the green site and write the poem over it. Once they have finished this, the children can read-aloud their poems to the rest of the class.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Geography

english
Inside Out

Objectives
- To be able to use time, resources and group members efficiently by distributing tasks, checking progress and making back-up plans
- To be able to choose and combine words, images and other features for particular effects
- To be able to organise text into paragraphs to distinguish between different information, events or processes

Year Group
Year 4 (8 to 9 years)

Duration
2 hours

National Curriculum Objectives
KS2 English En1/2bde, 3ab, 8a, 9c, 10b En3/1abe, 2ab, 7a, 9a, 12

Equipment

Open Spaces
- Clipboards*
- Paper
- Pencils

Small Spaces
- Clipboards*
- Paper
- Pencils

Building Manual
- Worksheets (En6)
- Clipboards*
- Pencils

Key Words
Compare
Instructions

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Explain** that they are going to be comparing how different places make them feel, and that they are going to use it as a base for producing a variety of pieces of writing. **Give** the children a health and safety talk.
15 minutes	**Open Spaces**
	The objective of this activity is for children to be able to choose and combine words, images and other features for particular effects. **Explain** to the class that as a group, they must choose a large open space on the green site where they can see the sky. Once the class have decided on a suitable place, provide each child with a clipboard, paper and pencil. **Ask** each child to think about words and phrases that describe their chosen area and how it makes them feel. Ask the children to write these down on their piece of paper. Once the children have done this ask them to think of alternative words which are more accurate or interesting than the ones they originally chose.
50 minutes	**Shelter Building**
	The objective of this activity is for children to be able to use time, resources and group members efficiently by distributing tasks, checking progress and making back-up plans. **Divide** the class into smaller groups. Explain to the children that they are going to compare how they feel in small spaces compared to large open spaces and tell them that they are going to build a shelter. Set limits on the area that the children can use to collect materials, and a time limit of 30 minutes. While the groups are building their shelters, visit the groups offering advice when needed and ensure that all members of each group are working together as a team. After 30 minutes, bring the class back together and as a class visit each shelter. Test them for safety and then encourage each group in turn to try out their own shelter.
15 minutes	**Small Spaces**
	The objective of this activity is for children to be able to choose and combine words, images and other features for particular effects. Provide each child with a clipboard, paper and pencil. While the children are sat in their shelters ask them to think about words and phrases that describe their shelter and how it makes them feel. Get them to write these down on their piece of paper. Once the children have done this ask them to think of alternative words which are more accurate or interesting than the ones they originally chose. **Explain** to the class, that in their groups they must now safely dismantle their shelters.

Lesson Content

TIMES	ACTIVITY
20 minutes	**Building Manual**
	The objective of this activity is for children to be able to organise text into paragraphs to distinguish between different information, events or processes.
	Provide each child with a worksheet, clipboard and pencil and demonstrate how to complete the worksheet. Explain to them that they are going to write down a set of instructions on how to build a safe shelter, thinking about how they just completed the task. The children can also draw pictures to illustrate the steps. **Explain** to the class that they must write down any equipment they would need and a series of steps to explain how they would build a shelter.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Design and Technology

english
Robin Hood

Objectives
- To be able to present a spoken argument, sequencing points logically, defending views with evidence and making use of persuasive language
- To be able to perform a scripted scene, making use of dramatic conventions
- To be able to adapt non-narrative forms and styles to write function or factual texts, including poems
- To be able to experiment with the order of sections and paragraphs to achieve different effects

Year Group
Year 5 (9 to 10 years)

Duration
2 hours

National Curriculum Objectives
KS2 English En1/2be, 3acde, 8a, 9ac, 10ac, 11ab En2/3abc, 4i En3/1abe, 2ab, 9ac, 12

Equipment

Personalities to Poems
- Cards (En7)
- Clipboards*
- Paper
- Pencils

The Story of Robin Hood
- Copies of the story of Robin Hood (En8)
- Clipboards*
- Paper
- Pencils

Robin Hood versus The Sheriff
- Clipboards*
- Paper
- Pencils

Key Words
Script
Dialogue
Debate

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Tell** the children a short outline of the story of Robin Hood. **Give** the children a health and safety talk.
30 minutes	**Personalities to Poems**
	The objective of this activity is for children to be able to adapt non-narrative forms and styles to write function or factual texts, including poems. **Divide** the class into nine groups, and provide each group with a card containing information about a character from Robin Hood, a clipboard, paper and a pencil. **Explain** to the groups that they are now going to write a poem using the descriptive words on their cards, for example, if Maid Marian is described as brave, the children may write about a time when they were brave or what they view as being brave. Once they have done this, the children can read-out their poems to the rest of the class.
50 minutes	**The Story of Robin Hood**
	The objective of this activity is for children to be able to perform a scripted scene and be able to experiment with the order of sections and paragraphs to achieve different effects. **Divide** the class into small groups and provide each group with a copy of the story of Robin Hood. Explain that each paragraph is written on a different piece of paper. **Explain** to the groups that they must sort the paragraphs into what they perceive is the correct sequence of the story. Once the groups have completed this, bring the class back together and discuss that even if they have different sequences, they may all be correct as they may just have achieved different effects. Explain that variations of the story of Robin Hood do exist. Next, explain to the groups that they are going to perform their version of the story to the rest of the class. Provide the groups with a clipboard, paper and pencil, and ask each group to add dialogue and actions to the story in order to transform it into a script. Once they have done this, the children can act out their scripts to the rest of the class.

Lesson Content

TIMES	ACTIVITY
20 minutes	**Robin Hood versus The Sheriff**
	The objective of this activity is for children to be able to present a spoken argument, sequencing points logically, defending views with evidence and making use of persuasive language.
	Discuss with the class about how they might have differing views about Robin Hood and The Sheriff, some may believe that Robin Hood was good because he helped the poor, while others may believe that he was bad because he robbed from people. Ask the children to think about who they would like to defend, and get the children to divide themselves into two groups, one group will argue why they believe Robin Hood is the good guy, while the other group will argue why they believe The Sheriff is the good guy. Provide each group with clipboards, paper and pencils and explain that they are going to have a class debate and present their side of the argument to the other group and vice versa. Ask each group to think about how they are going to convince their group to see their view using persuasive language. The groups must also decide and nominate who will be the scribe and the spokesperson.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

english
A Local Issue

Objectives
- To be able to use the techniques of dialogic talk to explore ideas, topics or issues
- To be able to integrate words, images and sounds imaginatively for different purposes
- To be able to use varied structures to shape and organise text coherently

Year Group
Year 6 (10 to 11 years)

Duration
2 hours

National Curriculum Objectives
KS2 English En1/2be, 3ab, 9c, 10ab En3/1abe, 2ab, 9ab, 11, 12

Equipment

Enquiry surrounding an Issue
- Clipboards*
- Paper
- Pencils

A Guide for the Green Site
- Clipboards*
- Paper
- Coloured pencils
- Pencils

Key Words
Issues
Questionnaire

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Tell** the class that they are going to be exploring the green site and investigating other people's opinions of the green site. **Give** the children a health and safety talk.
20 minutes	**Exploring Issues**
	The objective of this activity is for children to be able to use the techniques of dialogic talk to explore ideas, topics or issues. **Discuss** with the class any issues that there are associated with the green site, for example, graffiti, litter etc. To start the discussion take the class on a walk around the green site and ask the class to look out for any problems. Ask them to point out any problems that they observe. **Allow** the children to lead the direction that the discussion takes, allowing them to express their views and only prompt them with further questions when needed. Points to discuss can include, who may have caused the problems, why they caused it and how to resolve the problem and prevent it occurring again in the future.
20 minutes	**Enquiry surrounding an Issue**
	The objective of this activity is for children to be able to use varied structures to shape and organise text coherently. **Divide** the class into small groups each with an adult supervisor and provide each group with a clipboard, paper and pencil. **Explain** to the groups that they must develop a questionnaire in order to gain answers to any of the questions that were raised in the class discussion or any questions that arise while they are doing this activity. Remind the groups to use both open and closed questions, and to ensure that the questionnaire is coherent so that it can be understood by other people.
30 minutes	**Talking to the Public**
	Remaining in the same groups, explain to the children that they must now ask people to complete their questionnaires. The children can approach members of the public with their adult supervisor, their leaders and other members of their class.

Lesson Content

TIMES	ACTIVITY
30 minutes	**A Guide for the Green Site**
	The objective of this activity is for children to be able to be able to integrate words, images and sounds imaginatively for different purposes and to be able to use varied structures to shape and organise text coherently. Now that the groups have a more in depth understanding of issues associated with the green site explain to them that as a class they are going to produce a booklet about the green site, taking into account the differing views gained from completing the questionnaire. Provide the groups with clipboards, paper, coloured pencils and pencils. Each group must produce either a poem about what they think about the green site using imaginative language to express their feelings, a detailed picture illustrating the issues and solutions associated with the green site, an explanatory text which would describe the site in great detail or proposed ideas for improvements to the site. Once each group has finished their piece of work, collect them up and bind them together to produce a guide for the green site.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind children to wash their hands back at school.

Cross-curricular Links

- PSHE and Citizenship

Follow-up Activity

Back at school the children can carry out some research into who owns or manages the green site. They could then a write a letter to this person with any ideas they have about how the green site could be improved. They could enclose the results of the questionnaire if they support their ideas and a copy of their guide, which will illustrate some positive features on the site. This activity would help to support National Curriculum objectives met in English.

Master Copy: **Word box**

Warm

Safe

Comfortable

Secure

Snug

Animals on the Move

Have fun looking for minibeasts. Think about how the minibeasts move and record it in the table below.

Then, think of an alternative word to the original verb to describe its movement.

Minibeast	How does it move?	Alternative verb to describe how the minibeast moves
 DEBBIE KING	Flies	Flutters

Scavenger Hunt

Have fun foraging around the green site looking for objects that are listed below:

Small seed

Round red berry

Fluffy feather

Pretty petal

spherical stone

TWISTED TWIG

Brown bud

Little leaf

Bumpy bark

Wrinkly wrapper (sweets)

Prickly pine needle

Animal Alliteration

Complete the table below, and form a sentence about an animal. In your group, put your sentences together to form a poem which you can read out to the rest of the class.

Your name _____

An animal that begins with the first letter of your name _____

An adjective to describe the animal _____

A verb to describe how the animal moves _____

Your sentence _____

_____

Your group poem _____

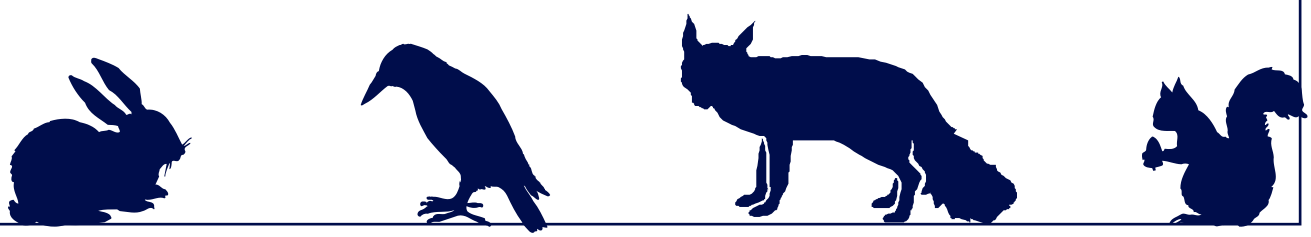
_____

_____

_____

_____

_____



Scavenger Hunt

Have fun foraging around the green site looking for objects that match the descriptive words below:

Soft

Hard

Rough

Smooth

Shiny

DULL

Wet

DRY

Green

Brown

Black

Yellow

round

FLAT

Building Manual

Write down instructions about how to build a safe shelter using the writing frame below. You can also use pictures to illustrate the different stages.

You will need:

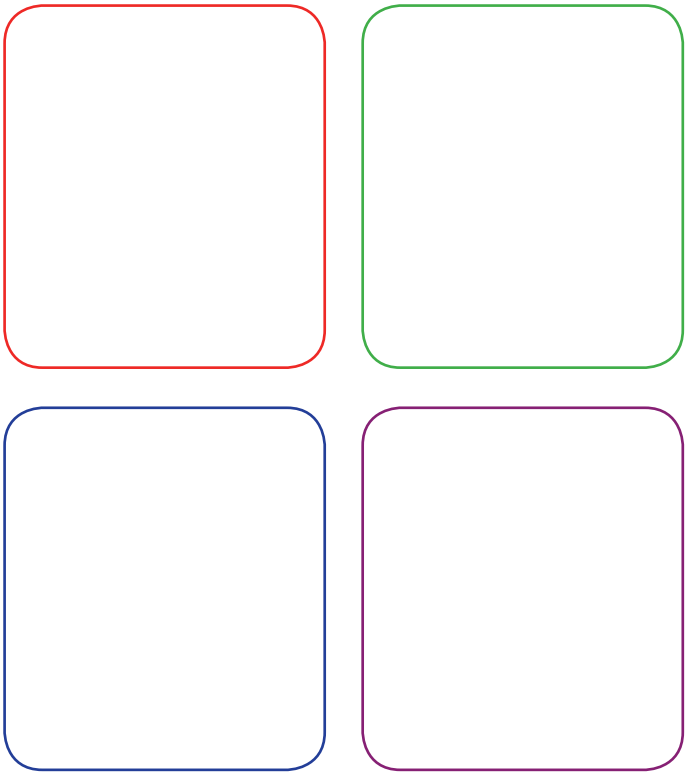
1. _____

2. _____

3. _____

4. _____

5. _____



How to build a safe shelter:

1. _____

2. _____

3. _____

4. _____

5. _____

Master Copy: **Personalities to Poems**

Robin Hood
Clever, idealistic, arrogant, humourous and bold.

Maid Marian
Beautiful, proud, stubborn, kind and brave.

The Sheriff
Ruthless, greedy, ambitious, cruel, devious and intelligent.

Sir Guy of Gisborne
Vain, brutal, ambitious, loyal, practical, boastful and frustrated.

Will Scarlet
Committed, hopeful, practical and willing.

Little John
Strong, instinctive, practical, resolute, powerful, knowledgeable and authoritative.

Allan A Dale
Cheeky, opportunist, liar, and untrustworthy.

Much
Daft, committed, reasonable and idealistic.

Djaq's
Incredible and talented.

Master Copy: **Story of Robin Hood**

Robin Hood lived in medieval times in Sherwood Forest, Nottingham
Robin Hood is a man known for robbing from the rich and providing for the poor and who fought against justice and cruelty
Robin Hood's group consisted of seven men who were all outlaws. These men are known as his Merry Men.
Robin Hood's enemy was the sheriff, who was cruel and who abused his position of authority. He appropriated land, levied excessive taxes and persecuted the poor.
Robin Hood was a yeoman, meaning he was a free man.
Robin Hood served in the crusades, and returned to find that the sheriff had stolen his lands.
One day...
Robin hood sets out to go to Nottingham to complete a shooting contest.
The king's men make fun of Robin Hood.
The king's men offer a bet that Robin Hood could not kill a deer.
Robin Hood proves them wrong and he does kill a deer.
The king's men refuse to pay Robin Hood.
Robin Hood shoots fourteen of the king's men and flees to the forest.
Robin Hood dies, and was buried in West Yorkshire.

geography

geography
Around our School

Objectives
- To be able to recognise where places are within the school
- To be able to describe a route
- To be able to recognise some of the physical and human features in their locality
- To know some of the ways in which the features are used
- To be able to express their views on their local area

Year Group
Years 1 & 2 (5 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 Geog/1bcd, 2abc, 3b, 4a, 6a, 7ab

Equipment

Map Making
- Clipboards*
- Maps of the school grounds
- Pencils
- Paper
- Wax crayons

Exploring the Local Area
- Clipboards*
- Paper
- Pencils*

Route Finder
- Maps of the local area
- Clipboards*
- Pencils

Likes and Dislikes
- Red and green flags*

Key Words
Physical feature
Human feature
Route
Map

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Begin in the school ground. Introduce yourself to the class and briefly explain what they will be doing during the session. **Explain** to the class that they are going to be investigating their local area. **Give** the children a health and safety talk.
20 minutes	**Map Making**
	The objective of this activity is for children to be able to recognise where places are within their school. **Explain** to the class that they are going to annotate a map of their school grounds. **Divide** the class into pairs, and provide each pair with a map of their school grounds, a clipboard, and pencil, some paper and wax crayons. **Take** the class on a walk around their school grounds and ask them to make rubbings of any different surfaces that they discover. Ask the children to label their rubbings with what it was taken from and number it, also recording the number onto their map so that they remember the locations. Encourage the children to use adjectives to describe the different surface.
40 minutes	**Exploring the Local Area**
	The objective of this activity is for children to recognise some of the physical and human features in their locality and to know some of the way the features are used. **Take** the class on a walk to a local green site. Divide the class into small groups and provide each group with a clipboard, some paper and a pencil. Explain that they must identify any features they see and decide whether they are physical or human and discuss the purpose of the features. The children can use the paper to make any notes to help them remember the different features they see. Also point out any street names to assist the children with the next activity.
15 minutes	**Route Finder**
	The objective of this activity is for children to be able to describe a route. **Divide** the class into small groups and provide each group with a map of their local area, a clipboard and a pencil. The map must clearly show their school and the green site. **Ask** the children to think about the route they have just taken and to mark it onto their map. Remind them to think about the street names they observed on their walk and the features and to mark these on the map in order to build up an image of their route.

Lesson Content

TIMES	ACTIVITY
25 minutes	**Likes and Dislikes**
	The objective of this activity is for children to be able to express their views on the local area.
	Divide the class into small groups, each with an adult supervisor and provide each group with a red and a green flag.
	Explain to the children that they must position their red flag in an area that they dislike and their green flag in an area that they like.
	Once all of the groups have positioned their flags, bring the class back together.
	Lead the children on a walk around the site allowing each group to explain what it is they like and dislike about the different places.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Ask the class if they have a better understanding of their local area and what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- PSHE and Citizenship

Follow-up Activity

Back at school the children can use the rubbings that they did of the different surfaces from within their school grounds to create a large annotated map of their school grounds. Provide each pair with an A3 sheet of paper. Explain to them that they will be using their original map of their school grounds and the rubbings. Each pair must glue their map in the centre of their A3 paper and stick their rubbings around it, labelling where each one was taken from. The children can also annotate their map with adjectives describing the different surfaces.

geography
Geography and Numbers 1

Objectives
- To be able to apply mathematics to work in geography
- To be able to use geographical vocabulary
- To be able to use fieldwork skills
- To be able to use maps and plans
- To be able to investigate the locality of their school

Year Group
Years 1 & 2 (5 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 Geog/1abcd, 2abce, 3b, 4a, 6a, 7ab

Equipment

Planning a Route
- Maps of the local area
- Clipboards*
- Pencils
- Rubbers

Walking the Route
- Same as above

Measuring in the Natural Environment
- Tape measures*
- Lengths of string
- Worksheets (G1)
- Clipboards*
- Pencils

Key Words
Route
Length
Longer
Shorter
North
East
South
West

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Explain** that they will be working in small groups and that they are going to be doing some problem solving, measuring routes and visiting a local green site. **Give** the children a health and safety talk.
30 minutes	**Planning a Route**
	The objective of this activity is for children to be able to investigate the locality of their school. At school, divide the class into small groups, each with an adult supervisor and provide each group with a map of the local area, a clipboard, pencil and a rubber. **Explain** to the groups that they must plan a walk from their school to their local green site, using the shortest and safest route. Ask the children to consider how long they think the walk will take, how many roads they will have to cross and the different directions that they will have to walk, for example, north, east, south, and west. When all of the groups have produced a map displaying their route, discuss as a class which group has come up with the shortest and safest route, and therefore, the route that they are going to use.
40 minutes (depending on the distance)	**Walking the Route**
	The objective of this activity is for children to be able to use maps and plans and to be able to practice fieldwork skills. **Take** the class on a walk to the local green site using the map that was produced in the previous activity. Whilst on the walk point out some general features, for example, post box, post office, library and telephone box and ask the children to mark them onto their maps in order to build up a picture of their local area. **Remind** the groups to think about the different directions in which they are walking, for example, north, east, south and west.
30 minutes	**Measuring in the Natural Environment**
	The objective of this activity is for children to be able to apply mathematics to work in geography. **Divide** the class into small groups, each with an adult supervisor and provide each group with a tape measure, a length of string, a worksheet, clipboard and pencil. **Explain** to the class that trees gain approximately 2.5cm girth per year and that some trees grow faster than others, for example, oak and beech grow slowly and chestnut and birch trees grow quickly.

Lesson Content

TIMES	ACTIVITY
	Explain to the groups that they are going to measure the girth of some tree trunks in order to determine their age, and that they must measure 1 metre from the base of the tree. Explain that if the tape measure is too short to go around the tree they can use string and then measure the string. The children must record their measurements on their worksheet, and then using a calculator divide the figure by 2.5, which is approximately how much a tree grows per year. This will give them the approximate age of the tree. **Ask** the children to put them in order starting from the youngest to oldest.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and how they have used many different skills to explore their local area. Ask the class what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Maths

Follow-up Activity

Back at school the children can talk about and produce maps of their journey to and from school. They could use maps of the local area to help and use sketches and photographs of their journey to annotate the map.

geography
Investigating our Local Area

Objectives
- To be able to investigate places
- To be able to use and interpret maps
- To know about physical and human features
- To know about land use in settlements
- To be able to use fieldwork techniques
- To know about environmental impact

Year Group
Year 3 (7 to 8 years)

Duration
2 hours

National Curriculum Objectives
KS2 Geog/1abce, 2abcdg, 3ae, 5a

Equipment

Planning a Route
- Maps of the local area
- Clipboards*
- Pencils
- Rubbers

Walking the Route
- Same as above
- Digital camera*

Exploring the Green Site
- Paper
- Clipboards*
- Pencils

Key Words
North
East
South
West
Route
Distance
Direction
Land use

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Explain** to the class that they will be exploring their local area, looking at land use and physical and human features. **Give** the children a health and safety talk.
30 minutes	**Planning a Route**
	The objective of this activity is for children to be able to use and interpret maps. At school, divide the class into small groups each with an adult supervisor and provide each group with a map of the local area, a clipboard, a pencil and a rubber. **Explain** to the groups that they must locate their school and local green site on the map and plan a route between them. Ask the children to think about how long they think the walk will take, and the different directions that they will have to walk, for example, north, east, south and west. When all of the groups are happy with their routes discuss as a class which group has come up with the shortest and safest route, and therefore, the route that they are going to use.
40 minutes (depending on the distance)	**Walking the Route**
	The objective of this activity is for children to know about physical and human features and about land use in settlements. **Take** the class on a walk to the local green site using the route that was planned in the previous activity. Whilst on the walk point out some different features, for example, post box, post office, library and telephone box and ask the children to mark them onto their maps in order to build up a picture of their local area **Provide** the children with a digital camera and ask them to take photographs of the different features. **Remind** the groups to think about the different directions that they are walking, for example, north, east, south and west.

Lesson Content

TIMES	ACTIVITY
30 minutes	**Exploring the Green Site**
	The objective of this activity is for children to be able to investigate places and to know about environmental impact.
	Divide the class into pairs and provide each pair with paper, a clipboard and a pencil.
	Take the class on a walk around the green site, and tell them how it has changed over time, for example, different land use, increased in size, decreased in size, increased quality of care, decreased quality of care etc.
	Divide the class into groups and ask each group to think of some ways in which they could improve the green site, for example, litter pick, plant more trees and cut the grass.
	Explain to the class that you will carry out some research and find out who manages or owns the site and that you will pass on their ideas to them, who will hopefully consider them in their future management plans.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask them what new skills they have learnt by studying their own locality. Ask the class what they enjoyed about the topic and their session to the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Maths

Follow-up Activity

Back at school the children can use the photographs they took on their walk to the green site and create a large annotated map of their local area. They could mark on the map their school, the local green site, local services and the route they walked on their visit.

geography
Geography and Numbers 2

Objectives
- To be able to apply mathematics to work in geography
- To be able to ask geographical questions
- To be able to use appropriate geographical vocabulary
- To be able to use appropriate fieldwork techniques
- To be able to use maps
- To be able to use secondary sources of information

Year Group
Years 3 & 4 (7 to 9 years)

Duration
2 hours

National Curriculum Objectives
KS2 Geog/1ace, 2abcdg

Equipment

Planning a Route
- Maps of the local area
- Bus timetable
- Clipboards*
- Pencils
- Rubbers

Walking the Route
- Same as above

Treasure Hunt
- Flags*
- Treasure*
- Clipboards*
- Paper
- Pencils

Key Words
Route
Length
Longer
Shorter
Left
Right
Backward
Forward
North
East
South
West

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Explain** that they will be working in small groups to complete the following tasks; problem solving, measuring routes and visiting a local green site. **Give** the children a health and safety talk.
30 minutes	**Planning a Route**
	The objective of this activity is for children to be able to apply mathematics to work in geography, to be able to use maps and to use secondary sources of information. At school, divide the class into small groups, each with an adult supervisor and provide each group with a map of the local area, a clipboard, pencil and a rubber. **Explain** to the groups that they must plan a route from their school to the local green site, using the shortest route. Ask the children to use the scale on their maps and to calculate the distance of the shortest route in metres and kilometres. Ask the children to consider how long it will take to walk the route, and the different directions that they will have to walk, for example, north, east, south and west. Next, provide the groups with a bus timetable and ask them to work out which bus they would need to take to the green site and to calculate the distance in metres and kilometres to the site and how long it would take to get there on the bus. When all of the groups are satisfied with the different routes they have looked at and produced a map displaying their route discuss as a class which group has come up with the most practical route, and therefore, the route they are going to use, either on foot or by bus.
40 minutes (depending on the distance)	**The Route**
	The objective of this activity is for children to be able to use fieldwork techniques and to be able to use maps. **Take** the class to the local green site, either on foot or by bus using the map that was produced in the previous activity. Whilst on route point out features, for example, post box, post office, library and telephone box, which the children can mark on their maps in order to build up a picture of their local area. **Remind** the groups to think about the different directions in which they are heading on their route, for example, north, east, south and west.

Lesson Content

TIMES	ACTIVITY
30 minutes	**Treasure Hunt**
	The objective of this activity is for children to be able to apply mathematics to work in geography and to be able to ask geographical questions.
	Divide the class into small groups, each with an adult supervisor and provide each group with a flag, some treasure, some paper and a pencil.
	Explain to the groups that they must hide their treasure and create a trail using compass directions for another group to follow, for example, 3 steps east, 1 step north or 6 steps south. Each group must place their flag in the ground to indicate the start of the trail.
	Each group must give their clues to another group so that they can try and find the hidden treasure.
	After all of the treasure is found, discuss with the children how easy it was to use compass directions in order to follow a trail.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Ask the class what they enjoyed about the topic and their session to the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Maths

Follow-up Activity

Back at school the children can talk about and produce maps of their journey to and from school, showing the distances and directions that they travel. They could use maps of the local area to help and use sketches and photographs of their journey to annotate the map.

geography
Improving the Environment

Objectives
- To be able to ask and respond to geographical questions
- To be able to collect and record evidence to answer questions
- To know how people affect the environment
- To know how and why people seek to manage and sustain their environment
- To be able to investigate places

Year Group
Year 4 (8 to 9 years)

Duration
2 hours

National Curriculum Objectives
KS2 Geog/1acd, 2ab, 5ab, 7b

Resources

Match-up Game
- Cards (G2)

The Mission
- Maps of the green site
- Clipboards*
- Pencils
- Gloves*
- Litter pickers
- Plastic bags

Improving the Environment
- Quiz (G3)
- Paper
- Pencils

Key Words
Environment
Issues
Waste
Recycling
Compost
Litter

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Discuss** with the class the different environmental problems that exist within their school, in the local area and globally, for example, noise, litter, vandalism and lack of resources. **Explain** to the children that the world's population is using up the Earths resources too quickly, which means we are damaging the environment and producing too much waste material. Explain that a lot of the Earths resources can be re-used which would reduce the problem, for example, glass, paper, cardboard, aluminium. **Give** the children a health and safety talk.
20 minutes	**The Match-up Game**
	The objective of this activity is for children to know how people affect the environment and how and why they seek to manage and sustain it. **Divide** the class into small groups and provide each group with two set of cards. One set of cards will display different ways people can manage and sustain the environment, for example, cycling, switching off lights, recycling and buying locally. The other set of cards will display the benefits of the different methods, for example, reduce pollution, save energy, reduce waste and reduce air miles. The groups must match-up the action cards with the benefit cards, remembering that some may have more than one option. **Bring** the class back together and discuss their different answers.
40 minutes	**The Mission**
	The objective of this activity is for children to be able to collect and record evidence to answer questions. **Divide** the class into small groups, each with an adult supervisor. Provide each group with a map of the green site, a clipboard, a pencil, gloves, a litter picker and a plastic bag. **Explain** to the class that it is their mission to explore the site looking for any signs of neglect, which they must record onto their map. Also, explain to them that as part of their mission they must collect litter using the litter pickers provided. Ask the groups to record on their map where they find the litter in relation to where the bins are situated. Explain to the groups that they must check with their adult supervisor before they collect any litter. **Ask** the groups to meet back at an allocated place after 30 minutes.

Lesson Content

TIMES	ACTIVITY
20 minutes	**The Results**
	The objective of this activity is for children to be able to ask and respond to geographical questions.
	Bring the class back together and discuss with them any issues that they had with the green site and how they think they could improve or solve the problems, for example, more rubbish bins, improved security and plant more trees.
	Ask them if they enjoyed exploring the site and collecting the rubbish. Discuss with them how this could be avoided, and ask them if they think rubbish bins are a solution. Also ask the children to think about what else we could do with the rubbish to reduce the problem of too much waste, for example, recycling. **Ask** the children what they think should happen to the rubbish that they have collected.
	Ensuring that all the children are wearing gloves, empty out the rubbish that has been collected. Explain to the children that some of the waste materials can be recycled; however, it has to be sorted into different groups; glass, metal, paper, cardboard and plastics. Provide the class with the different labels, and advise them how to sort the rubbish correctly. Promise the children that you will recycle the rubbish after all their hard work.
20 minutes	**Improving the Environment Quiz**
	The leader must hang the questions around an allocated area of the green site.
	Provide each child with a piece of paper and a pencil, and explain to them that they must find all of the questions and answer them.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Reiterate how the children can make a difference to the environmental issues and ask them what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- PSHE and Citizenship

Follow-up Activity

Back at school each child can design and produce posters illustrating the problems associated with dropping litter and the benefits of recycling. Once they have been laminated the teacher could return to the green site to display the posters.

geography
Water

Objectives
- To be able to make maps and plans
- To know about physical and human features
- To know how water is used in the world
- To be able to collect and analyse evidence

Year Group
Year 5 (9 to 10 years)

Duration
2 hours

National Curriculum Objectives
KS2 Geog/1ab, 2abc

Equipment

Water, Water Everywhere
- Maps of the green site
- Clipboards*
- Pencils

Water Cycle Game
- Team bands*
- Water cycle components (G4)

Water Collection
- Spades*
- Trowels*
- Plastic cups
- Plastic bags

Filtering Out
- Plastic bottles
- Sand
- Gravel
- Spoons

Key Words
Rain
Drain
Gutter
Tap
Evaporation
Condensation
Pollution
Filtering

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Tell** the children that they will be learning about where we find water, who uses it and whether or not all water is usable. **Give** the children a health and safety talk.
30 minutes	**Water, Water Everywhere**
	The objective of this activity is for children to be able to make maps and plans, and to know about physical and human features. **Divide** the class into pairs, and provide each pair with a map of the green site, a clipboard and a pencil. **Take** the class on a walk around the green site looking for any signs of the presence of water on the site, for example, drains, taps, gutters, manhole covers and ponds. **Ask** the children to mark any presence of water on their maps, and also to look for any uses of water on the green site, for example, cafés and toilets.
20 minutes	**The Water Cycle**
	The objective of this activity is for children to know how water is used around the world. Show the children a diagram of the water cycle and discuss with them the different components. **Define** an area with stations that represent the components of the water cycle. Explain that the children are going to represent water droplets moving around the cycle, so they must run around the designated area. Intermittently signal for the children to stop and see where they are within the cycle. The pattern will be different each time it is repeated, which is how the cycle occurs naturally. Next, nominate 3 children to be the catchers who will represent homes, industry and agriculture. They will have a base outside of the cycle. The children must again run around the designated area, if they are tagged by the catchers they must go to the appropriate base for 20 seconds before joining in again. Again, signal for the children to stop and see where the water droplets are within the cycle. Once this part of the game is successful, change the rules so that if a child is tagged they must go to the appropriate base, for 40 seconds. This will show what happens when more and more water is taken out of the natural cycle. Finally, discuss what we could do to try and ensure the maximum amount of water stays where wildlife can use it, for example, turn off taps, have a shower not a bath and have a water butt.
30 minutes	**Water Collection**
	The objective of this activity is for children to be able to collect and analyse evidence. **Divide** the class into small groups and provide them with spades, trowels, plastic cups and plastic bags.

Lesson Content

TIMES	ACTIVITY
	Explain that they must find and collect some water from the green site. Tell them that they can dig holes, place plastic bags over leaves, look in tree hollows, puddles, ponds etc. and that they must keep the water for the next activity. **Ask** the children what makes their water samples usable or unusable, for example, colour, and smell, presence of creatures and its source. Discuss with the children whether they would drink the water or not and why they made that decision. Ask them what they could do to their water to make it usable, for example, filter. Ask the children to compare their different samples.
20 minutes	**Filtering Out**
	The objective of this activity is for children to collect and analyse evidence. **Talk** to the class about how groundwater is naturally filtered through layers of dirt, gravel and sand and that water company's filter water in the same way (as well as adding a mixture of chemicals). **Divide** the class into small groups and provide each group with a plastic bottle. Provide the class with scissors, sand, gravel, and spoons. **Explain** to the groups that they must cut the bottom off their plastic bottle and balance it upside down in a container that can collect the filtered water. Next they must place the gravel in the bottle, (leaving the cap on) and then place the sand on top of the gravel. The children must then use the water they collected in the previous activity and pour it into their bottle. The last step is to take the cap off the bottle, allowing the dirty water to filter through the layers of sand and gravel, which should take the dirt out of the water. **Bring** the class back together and discuss if the filters worked.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask them what they have learnt about water. Ask the children what they enjoyed about the topic and their session on the green site. NOTE: Remind children to wash their hands back at school.

Cross-curricular Links

- Science

Follow-up Activity

Back at school the children can keep a diary of water use in their home for a week. They can explore their own patterns of water consumption and think about how to reduce their consumption and how this might improve the environment.

geography
Geography and Numbers 3

Objectives
- To be able to apply mathematics to work in geography
- To be able to use maps
- To be able to use secondary sources of information
- To be able to investigate the features of rivers

Year Group
Years 5 & 6 (9 to 11 years)

Duration
2 hours

National Curriculum Objectives
KS2 Geog/1ace, 2abcdg

Equipment

Planning a Route
- Maps of the local area
- Bus timetable
- Clipboards*
- Pencils
- Rubbers

The Route
- Same as above

River Features
- OS maps
- Paper
- Clipboards*
- Pencils

Key Words
Distance
Metres
Kilometres
Scale
North
East
South
West
River features

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Explain** that they will be working in small groups and that they are going to conduct the following tasks; problem solving, measuring routes and visiting a local green site. **Give** the children a health and safety talk.
30 minutes	**Planning a Route**
	The objective of this activity is for children to be able to apply mathematics to work in geography, to be able to use maps and secondary sources of information. At school divide the class into small groups, each with an adult supervisor and provide each group with a map of the local area, a map of their school grounds, a map of their local green site, a clipboard, a pencil and a rubber. **Explain** to the groups that they must calculate the size of their school grounds and the local green site using the scales on the map and determine which is the largest. **Explain** to the groups that they must then plan a route from their school to the local green site, using the shortest route. Ask the children to use the scale on their maps and to calculate the distance of the shortest route in metres and kilometres and to think about how long it will take them to walk to the site, and the different directions that they will have to take, for example, north, east, south and west. Next, provide the groups with a bus timetable and ask them to work out which bus they would need to take to go to the green site. Ask the children to calculate the distance in metres and kilometres to the site and how long it would take to get the site on the bus. When all of the groups are satisfied with the different routes they have looked at and provided a map displaying the route, discuss as a class which group has come up with the most practical route, and therefore, the route they are going to use, either on foot or by bus.
40 minutes (depending on the distance)	**The Route**
	The objective of this activity is for children to be able to use maps. **Take** the class to the local green site, either on foot or by bus using the map produced in the previous activity. Whilst on route point out features, for example, post box, post office, library and telephone box, which they can mark on their maps in order to build up a picture of their local area. **Remind** the groups to think about the different directions in which they are heading on their route, for example, north, east, south and west.

Lesson Content

TIMES	ACTIVITY
30 minutes	**River Features**
	The objective of this activity is for children to be able to investigate features of rivers.
	Divide the class into small groups and provide each group with an OS map of York, some paper, a clipboard and pencil.
	Ask each group to look at their map, and record where specific features related to rivers are on the map using six figure grid references.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and how they have used many different skills to explore their local area. Ask the class what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Maths

Follow-up Activity

Back at school the children can talk about and produce maps of their journey to and from school, showing the distances and directions that they travel. They could use maps of the local area to help and use sketches and photographs of their journey to annotate the map.

geography
Investigating Rivers

Objectives
- To know about the water cycle, including condensation and evaporation
- To be able to undertake fieldwork
- To be able to make plans and maps
- To understand how rivers erode, transport and deposit materials producing particular landscape features
- To be able to use geographical vocabulary
- To know about river systems

Year Group
Year 6 (10 to 11 years)

Duration
2 hours

National Curriculum Objectives
KS2 Geog/1a, 2abcd, 4ab

Equipment

Water Cycle Game
- Team bands*
- Water cycle components (G4)

Water Features
- Maps of the green site
- Clipboards*
- Blue pencil crayons

River Tales
- Maps showing the River Ouse*
- Photographs*
- Keywords (G5)

Investigating Rivers
- Quiz (G6)
- Paper
- Pencils

Key Words
Water cycle
Source
Spring
Stream
River
Estuary
Meander
Mouth
Transportation
Erosion
Deposition

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during their session. Find out what the children already know about rivers, asking them if they have ever visited a river before and what they observed. **Give** the children a health and safety talk.
20 minutes	**The Water Cycle**
	The objective of this activity is for children to know about the water cycle. Show the children a diagram of the water cycle and discuss with them the different components. **Define** an area with stations that represent the components of the water cycle. Explain that the children are going to represent water droplets moving around the cycle, so they must run around the designated area. Intermittently signal for the children to stop and see where they are within the cycle. The pattern will be different each time it is repeated, which is how the cycle occurs naturally. Next, nominate 3 children to be the catchers who will represent homes, industry and agriculture. They will have a base outside of the cycle. The children must again run around the designated area, if they are tagged by the catchers they must go to the appropriate base for 20 seconds before joining in again. Again, signal for the children to stop and see where the water droplets are within the cycle. Once this part of the game is successful, change the rules so that if a child is tagged they must go to the appropriate base, for 40 seconds. This will show what happens when more and more water is taken out of the natural cycle. Finally, discuss what we could do to try and ensure the maximum amount of water stays where wildlife can use it, for example, turn off taps, have a shower not a bath and have a water butt.
30 minutes	**Water Features**
	The objective of this activity is for children to be able to make plans and maps. **Divide** the class into small groups and provide each group with a map of the green site, a clipboard and blue pencil crayon. Explain that as they walk around the site they must annotate their map with information about the features, for example, still/moving water, colour, depth, what is along the bank, etc.
10 minutes	**River Processes**
	The objective of this activity is for children to understand how rivers erode, transport and deposit materials. **Explain** to the class about erosion and deposition and its effects on water courses. Talk about how the speed of the water affects the course of the river, river bank features and water depth. **Divide** the class into small groups and ask each group to stand in a line holding hands. Tell the children on one end of the line to stand still, while the other children move forward, keeping themselves in a straight line. The aim is to show that the water on the outer bend moves faster causing erosion, while the water on the inner bend moves slower leading to deposition.

Lesson Content

TIMES	ACTIVITY
20 minutes	**River Tales**
	The objective of this activity is for children to be able to use geographical vocabulary and to know about river systems.
	Divide the class into two groups and provide each with a large map showing the River Ouse, numerous photographs specific to the River Ouse and keywords related to rivers. Explain that they must place the photographs and keywords on the map, where they relate to the specific areas of the river.
20 minutes	**Investigating Rivers Quiz**
	The leader must hang the questions around an allocated area of the green site.
	Provide each child with a piece of paper and a pencil, and explain to them that they must find all of the questions and answer them.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session, reiterating keywords about rivers and the effects they have on the landscape. Ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

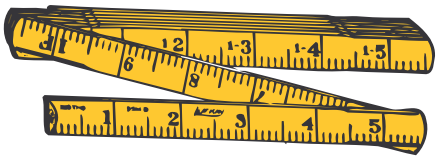
Follow-up Activity

Back at school the children can produce a descriptive piece of writing imagining that they are a water droplet in the River Ouse travelling from its source to its mouth. They could write about their journey, describing what they see on their travels.

NOTE:
This lesson can be delivered at Clifton Backies Local Nature Reserve, Hob Moor Local Nature Reserve, Rawcliffe Country Park and St. Nicholas Fields Local Nature Reserve.

Measuring Nature

Have fun measuring the trees and plants and record the measurements of your chosen ones in the table below.



Tree/Plant	Height (cm/m)	Girth (cm)	Equipment used
Plant 1	36cm		Tape measure

Tree/Plant	Tallest (cm/m)	Shortest (mm/cm/m)	Fattest (cm)	Thinnest (mm)

Master Copy: **Match-up Game**

Recycle Waste

Reduce pollution

Switch off the lights

Reduce rubbish in land fill sites

Cycle to school

Save energy

Turn off the taps

Reduce air miles

Buy fruit and vegetables locally

Save water

Walk to school

Reduce pollution

Master Copy: **Improving the Environment Quiz**

Question 1

How could supermarkets help to decrease their amount of waste?

A. Provide a free bus from town
B. Sell less food
C. Reduce packaging

Question 2

Why is plastic not environmentally friendly?

A. It cannot be recycled
B. It does not rot down
C. It creates a lot of litter

Question 3

How could you reuse a banana skin?

A. Put it on the compost heap
B. Use it to make paper
C. You can't

Question 4

What does Agenda 21 say about waste?

A. We are producing too much waste
B. We must put waste in the bin
C. We should have more rubbish dumps

Question 5

Which of the following is an environmental problem faced by people in developing countries?

A. Too much noise
B. Too much pollution
C. Lack of resources

Question 6

Is paper biodegradable?

A. Some types of paper are and some are not
B. Yes
C. No

Question 7

What do people use compost for?

A. To decorate gardens
B. To help plants grow
C. To make paper

Question 8

What are raw materials?

A. Uncooked food
B. Natural materials from the environment
C. Two materials added together

Master Copy: **Water Cycle Game**

DAVID MAUGHAN

JO MEAYS

JO MEAYS

JO MEAYS

JO MEAYS

JO MEAYS

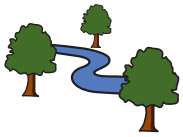
JO MEAYS

JO MEAYS

JO MEAYS

JO MEAYS

Master Copy: **River Tales**



York

Goole

Knaresborough

Estuary

Silt deposits

Meeting of River Ure and River Swale

Tidal Erosion

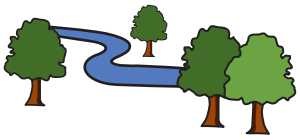
Floodplain

Source

Mouth

Meeting of River Ure and River Ouse

Master Copy: **Investigating Rivers Quiz**



Question 1

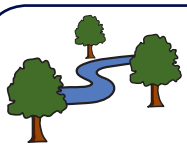
How are v-shaped valleys formed?

A. Deposition
B. Erosion
C. Transportation

Question 5

What happens to a meander after many years of erosion?

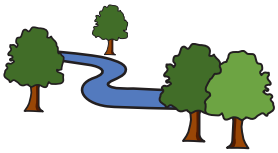
A. The water will be very deep
B. Deposition will occur
C. The river will cut across the bend and flow straight ahead forming an ox-bow lake



Question 2

What is the correct sequence in the water cycle?

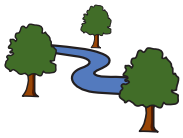
A. Precipitation rises from the river to form clouds
B. The river flows from the sea to the hills, and then rises to make clouds which falls as rain
C. The river flows to the sea, clouds are then formed which move to the hills and rain falls



Question 6

Where is the source of most rivers?

A. In the hills
B. At the sea
C. At a canal



Question 3

What is transportation?

A. Where two or more rivers meet
B. Where a river slows down and deposits its load
C. Where a river cuts a bed in which to flow

Question 7

What is the process called when a river carries material down stream?

A. Deposition
B. Transportation
C. Erosion

Question 4

Why is polluting our rivers a bad thing?

A. Pollution kills living things and makes the water unsafe to use
B. It changes the colour of the water
C. It makes the water smell

history

history

What was it like to live here in the past?

Objectives

- To know that a map is a representation of an area
- To be able to recognise some features in the local area, and to locate them on a map
- To understand how the area has changed during different time periods
- To be able to sequence maps in chronological order
- To be able to use maps to help describe some of the characteristic features of the past

Year Group

Years 3 & 4 (7 to 9 years)

Duration

2 hours

National Curriculum Objectives

KS2 His/1ab, 2ac, 5a, 7, 8b

Equipment

Exploring the Local Area

- Maps of the local area
- Clipboards*
- Pencils
- Digital Camera*

Exploring the Local Green Site

- History notes (H1)

Time-lines

- Cards (H2)

Spot the Difference

- Maps of the local area

Key Words

Maps
Past
Present
Historical
Decades
Century

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Ask** the class what they know about the history of York and the green site. **Give** the children a health and safety talk.
40 minutes	**Exploring the Local Area**
	The objective of this activity is for children to know that a map is a representation of an area, and to be able to recognise some features in the local area and to locate them on a map. **Provide** each child with a map of the local area, a clipboard and a pencil. Explain that they are going for a walk to their local green site and that they must record any natural and man-made features that they observe on their map. **Provide** the class with a digital camera and ask the children to take it in turns to take photographs of the different features.
30 minutes	**Exploring the Local Green Site**
	The objective of this activity is for children to understand how an area has changed over time. **Take** the children on a walk around the green site and talk to them about what it was like to live here in the past. NOTE: Teachers may need to use history notes that accompany this lesson plan.
15 minutes	**Time-lines**
	The objective of this activity is for children to understand how an area has changed over time. **Divide** the class into small groups, and provide each group with a set of time-line cards, which illustrate important times in the sites' history. **Explain** to the children that they must use the information they have been told during their history walk to put the cards in chronological order.
20 minutes	**Spot the Difference**
	The objective of this activity is for children to be able to sequence maps in chronological order, and to be able to look at features that were present in the past. **Divide** the class into small groups, and provide each group with an up to date map, and at least two historical maps of the area. **Ask** the groups to discuss the differences between the maps, and identify the changes that have taken place. Ask the children to think about any reasons why the changes may have occurred.

Lesson Content

TIMES	ACTIVITY
10 minutes	**Conclusion**
	Discuss with the class the key historical points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind children to wash their hands back at school.

Cross-curricular Links

- Geography

Follow-up Activity

Back at school the children can to do some research about their local green site using books and the internet, and produce a poster illustrating how their site has changed. They could then extend this activity to looking at the history of their school and its grounds, and the children could identify how their school has changed over the years.

NOTE:
This lesson can be delivered at Clifton Backies Local Nature Reserve, Hob Moor Local Nature Reserve and St. Nicholas Fields Local Nature Reserve.

History of Clifton Backies

Clifton Backies has an incredibly extensive history, therefore making it an ideal site for observing and recording changes over time.

The land, now known as 'Clifton Backies' originally belonged to St. Mary's Abbey, at the time one of the richest establishments in the north of England. The monks and nuns who inhabited the monastery used the land for growing crops. In 1538, with the dissolution of the monasteries, by the power hungry King Henry VIII, all property of monasteries was confiscated and sold to the wealthy. As a result of this, the land therefore known as Clifton Backies was sold and bought by a family named Robinson.

During the 17th century the land was cultivated under a strip farming system, this has resulted in the current ridge and furrow appearance seen on some areas of the site. Ridge and furrow can be identified at the site by a pattern of peaks and troughs created after a system of ploughing used during the Middle Ages. On closer inspection it can be seen that some of the ridge and furrows have a slight curve shape to them which would have been created by an ox-drawn plough, while other areas of ridge and furrow are much more straight, having been created by a horse-drawn plough.

Other evidence at the site suggests that parts of the site were under arable management until the 19th century.

More recently, Clifton Backies was part of the former Clifton Airfield. Combining its ideal location, in close proximity to the city centre and extremely flat features it was an ideal site for an airfield. In 1933 the aerodrome was opened and stayed open until 1955. The airfield was in use up until the Berlin Airlift in 1949. After 1949 the site was used for the stripping down of a thousand aeroplanes. Now, amongst the scrubland, remains of the blast shelters and buildings from the airfield can still be seen.

Since 1955 the site has not been managed and has become increasingly wild. The meadow areas have benefited from a lack of artificial weed killers and fertilisers, becoming havens for many varieties of wild flower and grasses.

In 1993, an agreement was signed by Persimmon's and the City of York Council which allocated an area of the site as a nature reserve and a section as a play area. Then, in 2002, due to the sites diverse wildlife, its recreational open spaces and its potential for education it was designated as a Local Nature Reserve.

History of Hob Moor

Hob Moor is an ideal site for looking at the history of York as it has a very detailed extensive recorded history.

On Hob Moor, an old causeway, dating back to The Middle Ages can be observed. The old causeway heads from the old city boundary in the direction of the city centre. This suggests that it was used as a direct route from York's surrounding areas by those wanting to avoid the main highways in York.

Hob Moor has been used for grazing animals for longer than can be remembered; the only exception to this was during the Napoleonic Wars. In the early 1800's, during the wars, the site was used for arable farming for the production of food crops. The ridge and furrow present on site results from horse-drawn ploughs and ox-drawn ploughs, these can still be seen today. Even now Hob Moor is used for grazing animals.

During the 16th and 17th centuries many lives were affected by the outbreak of the plague. Many plague victims were taken from the city centre to Hob Moor where they were housed in wooden lodges. Here the victims would pay for food brought out to them by placing money in a 'plague' stone. This stone can still be seen alongside the Hob Stone, which features a sculpture of a knight sculptured during the early 14th century. Both of these stones can be seen on the main path on Little Hob Moor.

During 1852, the original boundary of the site changed allowing Hob Moor to expand to include the North Lane Pasture, the former brickfield and part of Hob Moor field. The area where Kelsey's Pond existed has also gradually changed over the years, from a well-established brickyard containing a clay pit to a pond used for angling competitions with nesting swans. This pond was backfilled in the 1950's. Also during this time a golf course existed on the site, which was used by Railway Institute members, greens from which can still be seen near the Green Lane entrance.

In 2003, Hob Moor was declared a Local Nature Reserve in recognition of its important expanse of wildflower meadows and breeding populations of the fascinating skylark and meadow pipit.

History of St. Nicholas Fields

Earliest records of St. Nicholas Field show that it was used as a site for a huge variety of activities. During The Middle Ages one such use of the site was as a Leper Hospital, providing a sanctuary for many away from prying eyes.

During 1837 the site was sold and rented out for clay extraction and brick works. The bricks from which were used to build houses in the local area. The clay extraction and brick works were open until the 1950's by which time the land had become a patchwork of flooded pits, hollows and low mounds containing the remains of old buildings.

Over the next twenty years the pits were cleared of water and used as landfill sites. In 1971, local residents constructed a petition and presented it to the local Council complaining that St. Nicholas's Tip was storing up too many problems for future generations. During 1974, following this action, the tip finally closed. In the years to follow natural regeneration and colonisation gradually brought new life to the site. The site began to flourish with a wide range of plants growing and thriving among the refuse leading to songbirds nesting in the thickets.

In 1988 the York Natural Environment Trust was formed. They began by exploring the possibility of promoting St. Nicholas Fields as a Local Nature Reserve. For St. Nicholas Fields to be opened to the public it had to be covered in 50,000 cubic metres of clay, in order to seal in all of the old rubbish that had once been stored here. The new site was at first rather bleak, containing only a few remaining trees and shrubs, isolated in a sea of sticky clay.

Over the next 10 years the Friends of St. Nicholas Fields along with other local volunteers planted several thousand trees and shrubs, sowed beautiful wildflower meadows, constructed new, more accessible pathways and cleared tons and tons of rubbish from the site. Following this the site was then in 1998 allocated a National Lottery Grant to begin the construction of the Environmental Community Centre, which today provides a major element of the site.

In order to conserve and maintain a diverse range of habitats and sustain a wide range of exciting wildlife St. Nicholas Field became a Local Nature Reserve in 2004.

Master Copy: **Time-lines**

Clifton Backies LNR

Abbey – Monks and nuns	Strip farming – Ridge and furrow	Airfield – Blast shelters	Natural regeneration	LNR

Hob Moor LNR

Old causeway	Arable farming Ox-bow and horse drawn plough	Plague – wooden lodges	Expansion of boundary	Birds, wildlife, flowers etc.

St. Nicholas Fields LNR

Leper hospital	Brick works	Landfill site	Natural regeneration	Community centre

maths ÷

maths
Maths in the Outdoors 1

Objectives
- To be able to count confidently up to 20 objects
- To be able to recognise 2-D shapes in the natural environment
- To be able to estimate and measure objects using non-standard units and measuring instruments

Year Group
Year 1 (5 to 6 years)

Duration
2 hours

National Curriculum Objectives
KS1 Maths Ma2/2a, 5b Ma3/2a, 4a

Equipment

Counting Flowers and Petals
- Hula-hoops*
- Whiteboard*
- Whiteboard Pen*
- Number line*

Minibeast Hunt
- Bug jars*
- Paintbrushes*

Tree Rings
- Slice of a tree trunk*
- Cards (Ma1a&b)

Leaf Bingo
- Cards (Ma2)

Measuring Distances
- Whiteboard*
- Whiteboard Pen*

Key Words
Count
2-D shapes
Measure

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Explain** to the children that both as a class and in small groups they will be counting and measuring different items and looking for different shapes. **Give** the children a health and safety talk.
20 minutes	**Counting Flowers and Petals**
	The objective of this activity is for children to be able to count confidently up to 20 objects. The leader must lay out five hula hoops in a circle, and divide the class into five groups. Each group must then count the number of flower heads or petals inside their allocated hoop. Once they have all done this, they must inform the leader, who will record their data on a whiteboard. The children must then move on to the next hoop, continuing to count flower heads and petals in each hoop. **Bring** the children back together, and compare the number of flower heads or petals counted, discussing as a group which hoop contained the most and least. Encourage the children to use the number line, when adding numbers together.
25 minutes	**Minibeast Hunt**
	The objective of this activity is for children to be able to count confidently up to 20 objects and to be able to recognise 2-D shapes. **Inform** the children that they will be searching for minibeasts, reminding them that they may be difficult to find. **Divide** the class into pairs and provide each pair with a bug jar and paintbrush. Explain that when they find a minibeast they should transfer it carefully into their jar using the paintbrush so as not to damage it. Enforce the idea of handling all of the creatures with great care and respect; put the minibeasts back from where they were collected, gently place logs and stones back in their place, don't collect minibeasts that are too big for the jars. While the children are out searching, ask them to count the legs on each minibeast that they find and discuss the different shapes of the minibeasts. After 10 to 15 minutes, ask the children to collect one minibeast in their bug jar and come back together as a class. Ask them to count the number of legs on their minibeast, and get themselves into three groups; group 1 with no legs, group 2 with six legs and group 3 with more than six legs.
20 minutes	**Tree Rings**
	The objective of this activity is for children to be able to count confidently up to 20 objects. Show the class a slice of a tree trunk which shows the rings running through the trunk and therefore the age of the tree. Explain to the children that the number of rings found within the trunk indicates the age of the tree, for example, nine rings would mean that the tree was approximately nine years old. Provide each child with a card, displaying a diagram of a tree trunk.

Lesson Content

TIMES	ACTIVITY
	Ask the children to calculate the age of the tree on their card by counting the number of rings and to form a line, in order from the youngest tree to the oldest. **Take** the class on a walk estimating whether different trees on site are young or old simply by the size of their trunks.
10 minutes	**Leaf Bingo**
	The objective of this activity is for children to be able to recognise 2-D shapes in the natural environment. **Divide** the class into small groups, each with an adult supervisor and provide each group with a Leaf Bingo Card. **Explain** to the groups that they must try to find leaves that match the shapes on their card. Tell the children to shout "leaf bingo" once they have matched them all.
25 minutes	**Measuring Distances**
	The objective of this activity is for children to be able to estimate and measure objects using non-standard units and measuring instruments. **Divide** the class into small groups, each with an adult supervisor. Decide on a starting place, and nominate a different feature on the site to each group. Each group must then estimate and measure the distance from the starting place to their feature, using their hands, baby steps, strides and a natural object, which they must find themselves. **Ask** the children to tell the leader their different estimations and measurements according to each of the non-standard instruments who will record it on a whiteboard.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask them what they enjoyed about the topic and their session on the green site. NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Science
- PSHE and Citizenship

Follow-up Activity

Back at school the children can collect leaves from around their school grounds, and use them to make symmetrical, rotation and repeating patterns, either by doing rubbings or by painting the leaves and doing prints.

maths
Maths in the Outdoors 2

Objectives
- To be able to count confidently up to 100 objects
- To be able to recognise 2-D shapes and 3-D solids
- To be able to estimate, compare and measure lengths choosing and using standard and suitable measuring instruments
- To be able to identify reflective symmetry in 2-D shapes and draw lines of symmetry within shapes

Year Group
Year 2 (6 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 Maths Ma2/2ac, 3a Ma3/1abd, 2abd, 4ac

Equipment

Counting Flowers and Petals
- Hula hoops*
- Worksheets (Ma3)
- Pencils
- Number line*

Leaf Bingo
- Cards (Ma2)

Measuring in the Natural Environment
- Tape measures*
- Lengths of string
- Calculators*
- Worksheets (Ma4)
- Pencils

Symmetry in the Natural Environment
- Butterfly shapes (Ma5)
- Glue

Key Words
Count
2-D shapes
3-D solids
Measure
Estimate
Symmetry

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Explain** to the children that both as a class and in smaller groups they will be counting, estimating and measuring different items on the green site. Explain that they will also be looking for different shapes, and identifying if the shapes have lines of symmetry. **Give** the children a health and safety talk.
20 minutes	**Counting Flowers and Petals**
	The objective of this activity is for children to be able to count confidently up to 100 objects. The leader must lay out five hula hoops and divide the class into five groups providing each group with a worksheet and pencil and the class with a number line. Each group must then count the number of flower heads and petals inside an allocated hoop. Once they have done this, they must record it on their sheet. The groups must move between all of the hoops counting and recording the number of flower heads and petals. **Bring** the children back together and ask them to add together the total number of flower heads and petals counted. The children can also record which hoop contained the least and most flower heads and petals. Encourage the children to use the number line, when adding numbers together. NOTE: Remind the children not to pick any growing plants.
10 minutes	**Leaf Bingo**
	The objective of this activity is for children to be able to recognise 2-D shapes in the natural environment. **Divide** the class into small groups, each with an adult supervisor and provide each group with a Leaf Bingo Card. **Explain** to the groups that they must try to find leaves that match the shapes on their card. Tell the children to shout “leaf bingo” once they have matched them all.
20 minutes	**3-D Solids**
	The objective of this activity is for children to be able to recognise 3-D solid structures. **Explain** to the class that a 3-D structure will have a top, bottom and sides. **Inform** the children that they are going on a walk on which they are going to explore 3-D solid structures, for example, trunks, seeds, fence posts and stones. Encourage the children to observe and talk about the properties of the solid structures.

Lesson Content

TIMES	ACTIVITY
25 minutes	**Measuring in the Natural Environment**
	The objective of this activity is for children to be able to estimate, compare and measure lengths choosing and using standard and suitable measuring instruments.
	Divide the class into small groups, each with an adult supervisor and provide each group with a tape measure, length of string, worksheet and pencil.
	Explain to the class that trees gain approximately 2.5cm girth per year and that some trees grow faster than others, for example, oak and beech grow slowly and chestnut and birch trees grow quickly.
	Explain to the groups that they are going to measure the girth of some tree trunks in order to determine their age, and that they must measure 1 metre from the base of the tree. Explain that if the tape measure is too short to go around the tree they can use string and then measure the string.
	The children must record their measurements on their worksheet, and then using a calculator divide the figure by 2.5, which is approximately how much the tree grows per year. This will give them the approximate age of the tree.
	Ask the children to put them in order starting from the youngest to oldest.
35 minutes	**Symmetry in the Natural Environment**
	The objective of this activity is for children to be able to identify reflective symmetry in 2-D shapes and draw lines of symmetry within shapes.
	Take the children on a walk on which they can explore different shapes in the environment. Inform them that they need to try and identify shapes that are symmetrical, and explain to them that a shape is symmetrical if both sides are the same when a mirror line is drawn through it.
	Ask the children to think of an insect that has a line of symmetry. Provide the children with a butterfly shape and explain to them that they must draw on it its mirror line.
	Next, explain to the children that they must decorate their butterfly with natural objects, for example, leaves, petals and grass so that their butterfly is symmetrical.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask them what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Science

Follow-up Activity

Back at school the children can make rain gauges, which they could place around their school grounds. This would allow for the children to estimate the amount of rainfall they expect to fall and collect and measure the rainfal, as well as compare the different amounts from the different gauges.

maths
Maths in the Outdoors 3

Objectives
- To be able to read, write and order whole numbers to at least 1000
- To be able to identify right angles
- To be able to identify lines of symmetry in simple shapes and recognise shapes with no lines of symmetry
- To be able to read and record the vocabulary of position, direction and movement, using the four compass directions to describe movement

Year Group
Year 3 (7 to 8 years)

Duration
2 hours

National Curriculum Objectives
KS2 Maths Ma2/2c Ma3/2a, 3a

Equipment

Spinner Game
- Seed spinners (Ma6)
- Paper clips
- Tape measures*
- Worksheets (Ma7)
- Pencils

Natural Angles
- Digital camera*

Symmetry in the Natural Environment
- Butterfly shapes (Ma5)
- Glue

Compass Challenge
- Flags*
- Treasure*
- Paper
- Pencils

Key Words
Count
Measure
Right angles
Symmetry
Record
North
East
South
West
Direction

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Explain** to the children that both as a class and in smaller groups they will be counting and identifying different items and looking for different shapes on the green site. **Give** the children a health and safety talk.
20 minutes	**Spinner Game**
	The objective of this activity is for children to be able to read, write and order whole numbers to at least 1000. **Provide** the class with a collection of seed spinners numbered from one to 35 (or the number of children in the class), paper clips, tape measures, worksheets and pencils, and ask each child to choose one spinner on which to attach a paper clip. Next, ask the children to pretend to be trees which are about to disperse their seeds, and ask the children to throw their spinners into the wind and measure how far they travel in cm's and mm's. Ask the children to record this on their worksheet. Each child must then share their measurements with the rest of the class. Once the class has completed this they must rearrange their data, starting with the shortest measurement to the longest.
20 minutes	**Natural Angles**
	The objective of this activity is for children to be able to identify right angles. **Talk** to the class about angles. Explain that they are measured in degrees; explain that one whole turn is 360 degrees, a straight line is 180 degrees and a quarter turn is 90 degrees. **Tell** the children that they are going to go for a walk looking for right angles in their local environment, for example, growing trees, fence posts, paths, a dipping platform and bricks. The children could use a digital camera to record the different right angles.
20 minutes	**Symmetry in the Natural Environment**
	The objective of this activity is for children to be able to identify lines of symmetry in simple shapes and recognise shapes with no lines of symmetry. **Inform** the children that they are going on a walk on which they can explore different shapes in the environment. Inform them that they need to try and identify shapes that are symmetrical, and explain to them that a shape is symmetrical if both sides are the same when a mirror line is drawn through it. **Ask** the children to think of an insect that has a line of symmetry. Provide the children with a butterfly shape and explain to them that they must draw on its mirror line. Next, explain to the children that they must decorate their butterfly with natural objects, for example, leaves, petals and grass so that their butterfly is symmetrical.

Lesson Content

TIMES	ACTIVITY
40 minutes	**Compass Challenge**
	The objective of this activity is for children to be able to read and record the vocabulary of position, direction and movement, using the four compass directions to describe movement.
	Divide the class into small groups, each with an adult supervisor and provide each group with a flag, some treasure, paper and pencil.
	Explain to the groups that they must hide their treasure and create a trail using compass directions for another group to follow, for example, 3 steps east, 1 step north and 6 steps south. Each group must place their flag in the ground to indicate the start of the trail.
	Each group must give their clues to another group so that they can try and find the hidden treasure.
	After all of the treasure is found, discuss with the children how easy it was to use compass directions in order to follow a trail.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask them what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Geography

Follow-up Activity

Back at school the children can take photographs of right angles that are inside their classroom. They could then compare them to the photographs they took of the right angles outside, and identify if there are more right angles inside or outside.

maths
Maths in the Outdoors 4

Objectives
- To be able to suggest a strategy to follow a suggested line of enquiry; collect, organise and interpret selected information to find answers
- To be able to draw rectangles and measure and calculate their perimeters; find the area of rectilinear shapes
- To be able to recognise horizontal and vertical lines and use the eight compass points to describe direction

Year Group
Year 4 (8 to 9 years)

Duration
2 hours

National Curriculum Objectives
KS2 Maths Ma2/1abi, 4a Ma3/1h, 3a, 4e Ma4/1ch, 2a

Equipment

Investigating an Enquiry
- Paper
- Clipboards*
- Pencils
- Magnifying glasses*
- Trowels*
- White sheets*

Perimeter Walk
- Tape measures*
- Worksheets (Ma8)
- Clipboards*
- Pencils

Compass Challenge
- Flags*
- Treasure*
- Paper
- Pencils

Key Words
Investigation
Perimeter
Area
North
East
South
West
Direction

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Explain** to the children that both as a class and in small groups they will be measuring and solving problems on the green site. **Give** the children a health and safety talk.
40 minutes	**Investigating an Enquiry**
	The objective of this activity is for children to be able to suggest a strategy to follow a suggested line of enquiry; collect, organise and interpret selected information to find answers. **Explain** to the class that they are going to carry out an investigation in order to collect information which will help them answer the question; where do woodlice prefer to live? Ask them to think about how they might collect information which will help them answer the question. **Divide** the class into small groups each with an adult supervisor and provide each group with a clipboard, paper and a pencil. Provide the class with a selection of magnifying glasses, trowels and white sheets which they can use to help with their investigation. **Tell** the groups what time they must come back, and explain that you will visit each group and talk to them about their investigation offering assistance when needed. **Bring** the class back together and ask them to look at their results and to answer the original question.
20 minutes	**Perimeter Walk**
	The objective of this activity is for children to be able to draw rectangles and measure and calculate their perimeters; find the area of rectilinear shapes. **Talk** to the class about perimeters, which is the distance around a figure, and areas, which is the area the shape covers within its boundaries, and explain how to calculate a perimeter (total distance around the outside of a 2-D shape), and an area (area = base x height). **Divide** the class into small groups, and provide each group with a tape measure, clipboard, worksheet and pencil. **Take** the class on a walk around the green site looking for rectilinear shapes. Inform the children that they are going to explore the shapes; calculating their perimeters and areas.

Lesson Content

TIMES	ACTIVITY
40 minutes	**Compass Challenge**
	The objective of this activity is for children to be able to recognise horizontal and vertical lines and use the eight compass points to describe direction.
	Explain to the class about vertical and horizontal lines, and point out some examples of each at the green site.
	Divide the class into small groups each with an adult supervisor and provide each group with a flag, some treasure, paper and a pencil.
	Explain to the groups that they must hide their treasure and create a trail using the eight compass directions for another group to follow, for example, 3 steps north-east, 1 step north and 6 steps south-west. Each group must place their flag in the ground to indicate the start of the trail.
	Each group must give their clues to another group so that they can try and find the hidden treasure.
	After all of the treasure is found, discuss with the children how easy it was to use the compass directions in order to follow a trail.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask them what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Science
- Geography

Follow-up Activity

Back at school the children can present the data they collected during their investigation, using ICT. They could produce frequency tables, bar charts, line graphs and pie charts.

maths
Maths in the Outdoors 5

Objectives
- To be able to plan and pursue an enquiry; present evidence by collecting, organising and interpreting information
- To be able to draw and measure lines to the nearest millimeter; measure and calculate the perimeter of regular and irregular polygons; use the formula for the area of a rectangle to calculate the rectangles area
- To be able to read and plot coordinates in the first quadrant

Year Group
Year 5 (9 to 10 years)

Duration
2 hours

National Curriculum Objectives
KS2 Maths Ma2/1abfi, 4ae Ma3/1h, 4e Ma4/1c

Equipment

Investigating an Enquiry
- Magnifying glasses*
- Trowels*
- Bug jars*
- White sheets*
- Tape measures*
- Paper
- Clipboards*
- Pencils

Perimeter Walk
- Tape measures*
- Paper
- Clipboards*
- Pencils

Plotting Coordinates
- Signs (Ma9)
- Worksheets (site map & grid (Ma10))
- Paper
- Clipboards*
- Pencils

Key Words
Investigation
Data
Perimeter
Area
Regular polygons
Irregular polygons
Coordinates

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Explain** to the children that both as a class and in small groups they will be measuring and solving problems on the green site. **Give** the children a health and safety talk.
40 minutes	**Investigating an Enquiry**
	The objective of this activity is for children to be able to plan and pursue an enquiry; present evidence by collecting, organising and interpreting information. **Explain** to the class that they are going to carry out an investigation in order to collect organise and interpret information which will help them answer a question. Ask them to think about a question that they would like to investigate, for example, where do woodlice prefer to live? does soil vary? are flowers taller in woodlands? Ask the groups how they are going to carry out their investigations, for example, what data they are going to collect, and make suggestions when necessary. **Divide** the class into small groups, each with an adult supervisor and provide each group with a clipboard, paper and a pencil. Provide the class with a selection of resources, for example, magnifying glasses, trowels, bug jars, white sheets and tape measures which they can use to help with their investigation. **Tell** the groups what time they must come back, and explain that you will visit each group and talk to them about their investigation offering assistance when needed. **Bring** the class back together and ask them to organise and interpret their results in order to answer the original question.
30 minutes	**Perimeter Walk**
	The objective of this activity is for children to be able to draw and measure lines; measure and calculate the perimeter of regular and irregular polygons and use the formula for the area of a rectangle to calculate the rectangles area. **Talk** to the class about perimeters, which is the distance around a figure, and areas, which is the area the shape covers within its boundaries, and explain how to calculate a perimeter (total distance around the outside of a 2-D shape), and an area (area = base x height). **Divide** the class into small groups, and provide each group with a tape measure, clipboard, worksheet and pencil. **Take** the class on a walk around the green site looking for regular and irregular polygons. Inform the children that they are going to explore the shapes; calculating the perimeters of all of them and the areas of the rectilinear shapes.

Lesson Content

TIMES	ACTIVITY
30 minutes	**Plotting Coordinates**
	The objective of this activity is for children to be able to read and plot coordinates in the first quadrant.
	The leader must hang five signs around the site for the groups to find during the activity. The leader must also photocopy the template grid onto a map of the green site to create the worksheet, and highlight some of the features on the site. **Explain** to the class that coordinates can be used to pin point where you are on a map, for example, if a coordinate reads (5, 3) it means 5 units along and 3 units up. Also explain that the coordinates in this activity correspond with where the lines cross over on the grid. **Divide** the class into small groups, each with an adult supervisor and provide each group with a worksheet, a piece of paper, clipboard and pencil. **Ask** the children to read the coordinates of the highlighted features on their maps and record them. Next, explain to the groups that there are five signs hung around the site, which they must locate. Once they have located them they must locate their position on their map and record their coordinates. The leaders can point the groups in the right direction if needed. **Bring** the class back together and discuss the different coordinates that they have recorded.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask them what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Science
- Geography

Follow-up Activity

Back at school the children can present the data they collected during their investigation, using ICT. They could produce frequency tables, bar charts, line graphs and pie charts.

maths

Maths in the Outdoors 6

Objectives

- To be able to suggest, plan and develop lines of enquiry; collect, organise and represent information, interpret results and review methods; identify and answer related questions
- To be able to calculate the perimeter and area of rectilinear shapes; estimate the area of an irregular shape by counting squares
- To be able to use coordinates in the first quadrant to draw, locate and complete shapes that meet given properties

Year Group

Year 6 (10 to 11 years)

Duration

2 hours

National Curriculum Objectives

KS2 Maths Ma2/1abfi, 4abe Ma3/1h, 3c, 4e Ma4/1cdefgh, 2a

Equipment

Investigating an Enquiry

- Magnifying glasses*
- Trowels*
- Bug jars*
- White sheets*
- Tape measures*
- Paper
- Clipboards*
- Pencils

Perimeter Walk

- Tape measures*
- Quadrats*
- Paper
- Clipboards*
- Pencils

Plotting Coordinates

- Signs (Ma11)
- Worksheets (site map and grid (Ma10))
- Clipboards*
- Pencils

Key Words

Investigation
Data
Perimeter
Area
Regular polygons
Irregular polygons
Coordinates

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Explain** to the children that both as a class and in small groups they will be measuring and solving problems on the green site. **Give** the children a health and safety talk.
40 minutes	**Investigating an Enquiry**
	The objective of this activity is for children to be able to suggest, plan and develop lines of enquiry; collect, organise and represent information, interpret results and review methods; identify and answer related questions. **Explain** to the class that they are going to carry out an investigation in order to collect organise and interpret information which will help them to answer a question. Ask them to think about a question that they would like to investigate, for example, where do woodlice prefer to live? does soil vary? are flowers taller in woodlands? Ask the groups how they are going to carry out their investigations, for example, what data they are going to collect, and make suggestions when necessary. **Divide** the class into small groups, each with an adult supervisor and provide each group with a clipboard, paper and pencil. Provide the class with a selection of resources, for example, magnifying glasses, trowels, bug jars, white sheets and tape measures which they can use to help with their investigation. **Tell** the groups what time they must come back, and explain that you will visit each group and talk to them about their investigation offering assistance when required. **Bring** the class back together and ask them to organise and interpret their results in order to answer the original question. Ask them if there is anything they would do differently, and if they can identify any related questions which they could investigate back at school.
30 minutes	**Perimeter Walk**
	The objective of this activity is for children to be able to calculate the perimeter and area of rectilinear shapes; estimate the area of an irregular shape by counting squares. **Talk** to the class about perimeters, which is the distance around a figure, and areas, which is the area the shape covers within its boundaries, and explain how to calculate a perimeter (total distance around the outside of a 2-D shape), and an area of a rectilinear shape (area = base x height). **Divide** the class into small groups, and provide each group with a tape measure, quadrat, clipboard, worksheet and pencil. **Take** the class on a walk around the green site looking for regular and irregular polygons. Inform the children that they are going to explore the shapes; calculating their perimeters and areas. Explain to the groups that they must use their quadrats to calculate the areas of the irregular polygons by measuring the area of the quadrat and then calculating how many times it fits into the shape.

Lesson Content

TIMES	ACTIVITY
30 minutes	**Plotting Coordinates**
	The objective of this activity is for children to be able to use coordinates in the first quadrant to draw, locate and complete shapes that meet given properties.
	The leader must hang five signs around the site and record the location of the signs using coordinates, which will later be given to the class. The signs will contain coordinates, which when plotted on the grid will form different shapes, for example, a triangle, a square, a rectangle and a pentagon. The leader must also photocopy the grid onto a map of the green site to create the worksheet.
	Explain to the class that coordinates can be used to pin point where you are on a map, for example, if a coordinate reads (5, 3) it means 5 units along and 3 units up. Also explain that the coordinates in this activity correspond with where the lines cross over on the grid.
	Divide the class into small groups each with an adult supervisor and provide each group with a worksheet, clipboard and pencil.
	Explain to the groups that there are five signs hung around the site, which they must locate using the coordinates given to them. Once they have located the signs they must plot the coordinates that are recorded on them onto their worksheets and join the dots to form the shapes.
	Bring the class back together, and discuss the different shapes that they formed by plotting the different coordinates.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask them what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

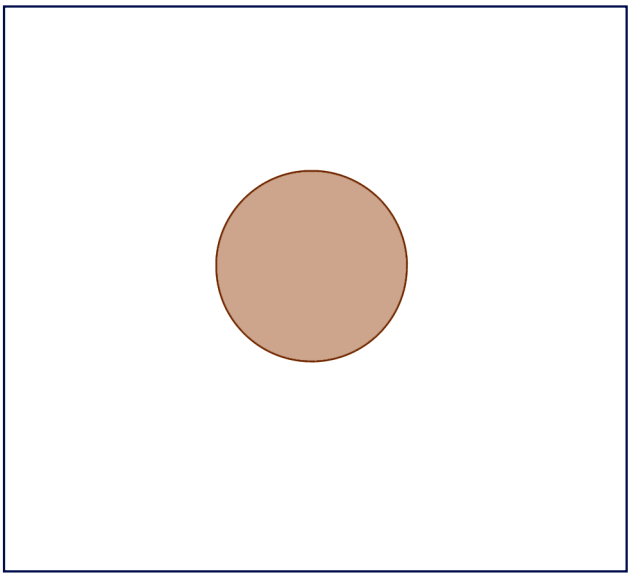
- Science
- Geography

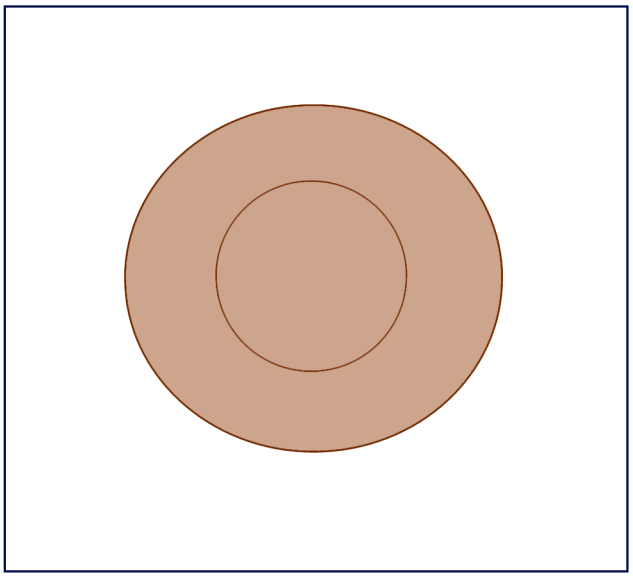
Follow-up Activity

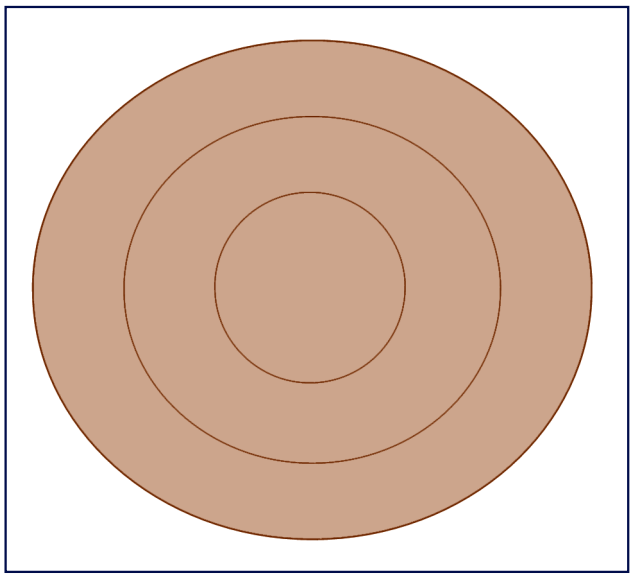
Back at school the children can present the data they collected during their investigation, using ICT. They could produce frequency tables, bar charts, line graphs and pie charts. The children could also carry out investigations for any questions they raised during their visit to the green site.

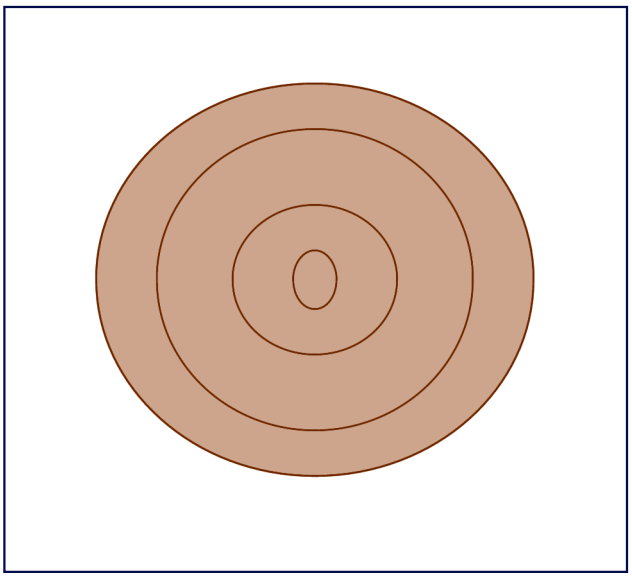
1a

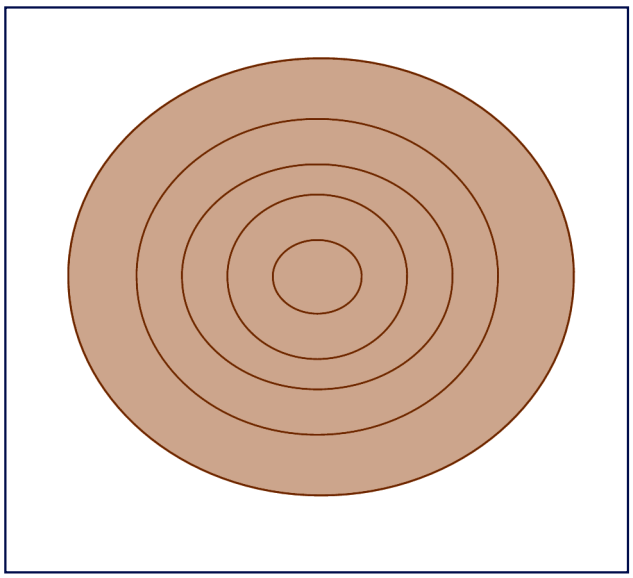
Master Copy: **Tree Rings**

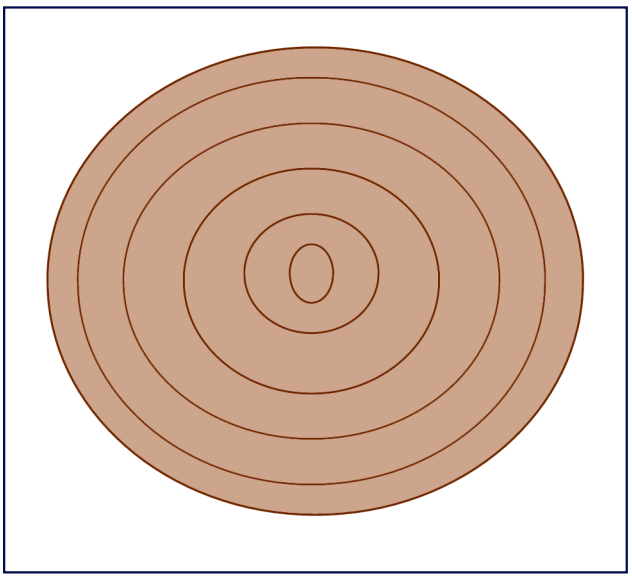






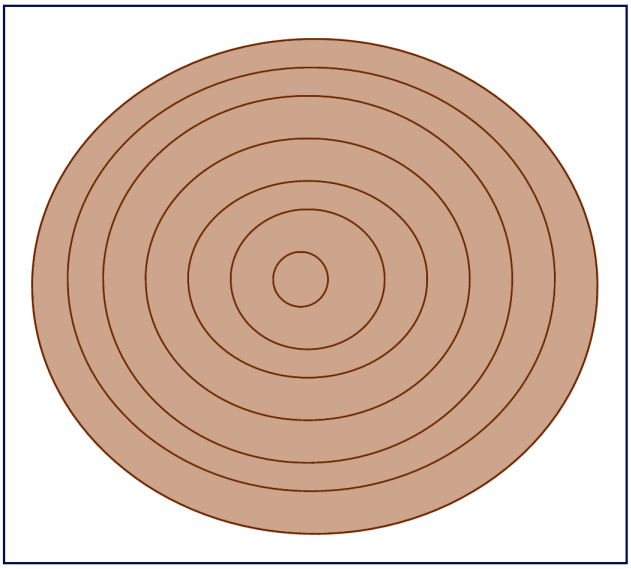


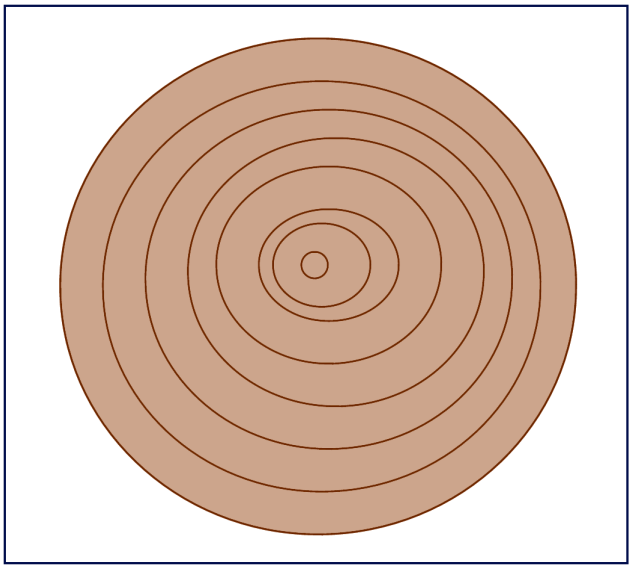


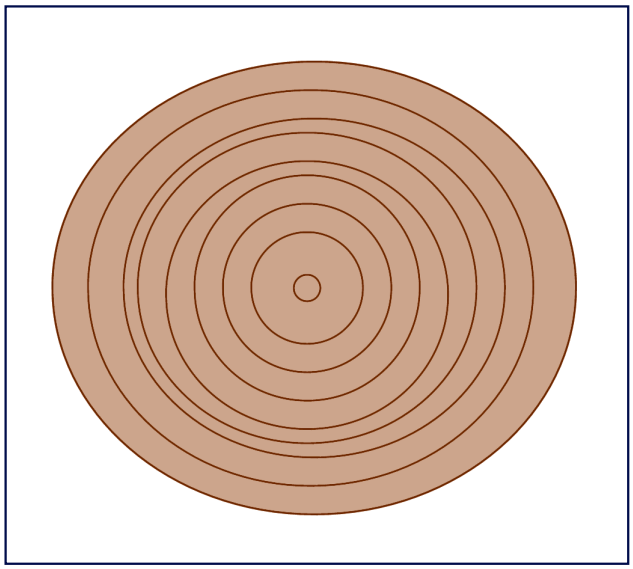


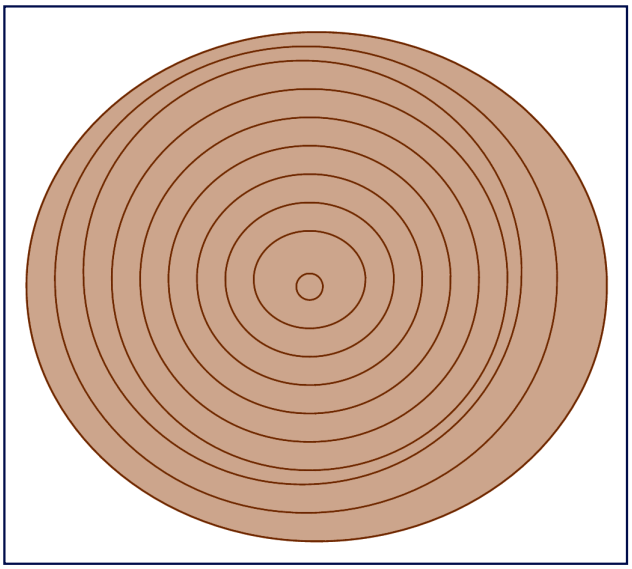
1b

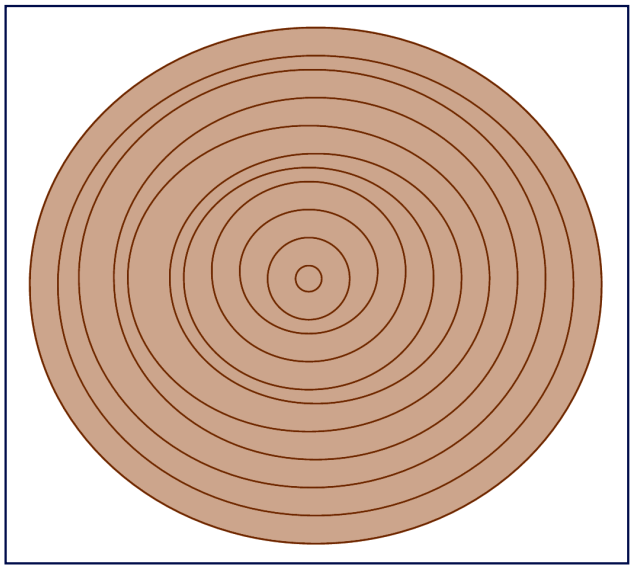
Master Copy: **Tree Rings**

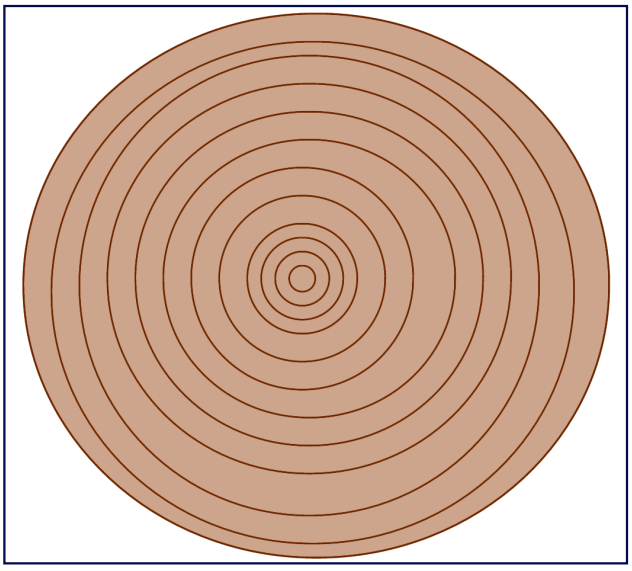








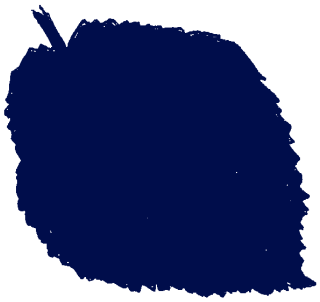
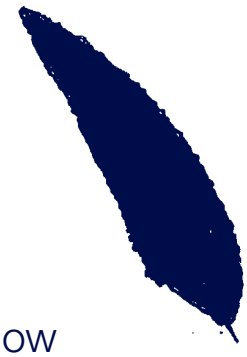




Leaf Bingo

Have fun looking for all of the different leaves.

Remember to shout “leaf bingo”!

1  Holly	2  Hawthorn	3  Hazel
4  Dog rose	5  Willow	6  Oak
7  Silver birch	8  Rowan	9  Maple

Counting Flowers and Petals

Have fun finding out
how many flower heads
and petals you can count.

Hula Hoop Number	Number of Flower Heads	Number of Petals
1		
2		
3		
4		
5		
Total		

Hula hoop_____contained the lowest number of flower heads

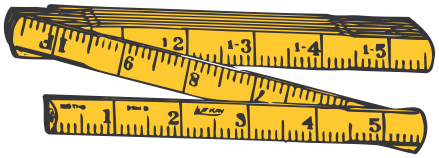
Hula hoop_____contained the highest number of flower heads

Hula hoop_____contained the lowest number of petals

Hula hoop_____contained the highest number of petals

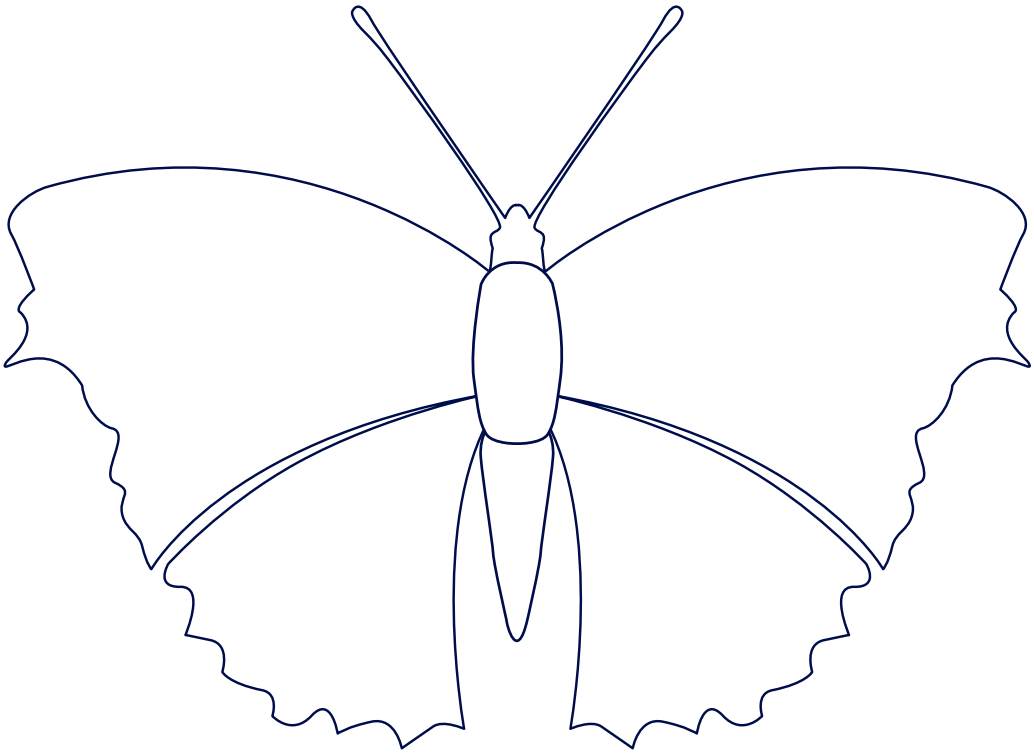
Measuring in the Natural Environment

Have fun calculating how old the different trees are on the green site.

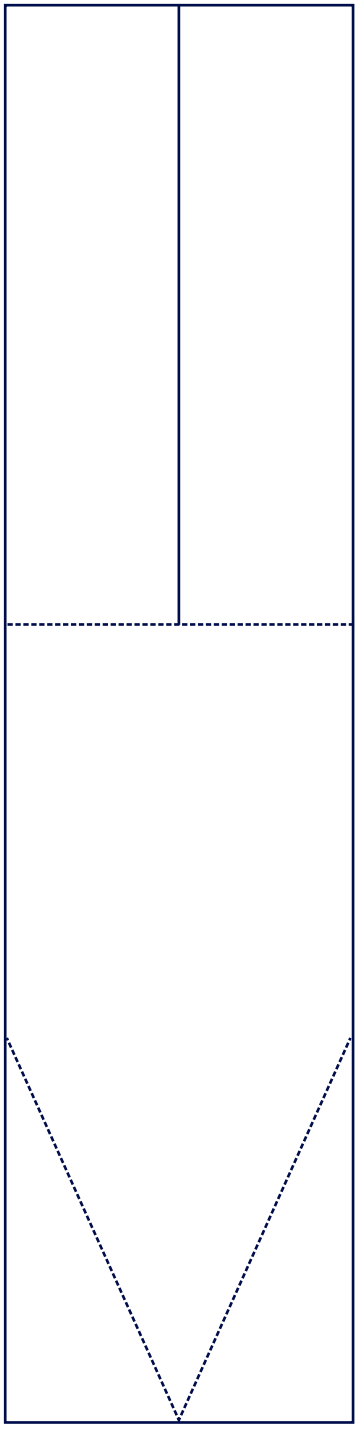


Tree Number	Girth of the tree trunk (cm's and mm's)		Age of the Tree
1		÷ 2.5	
2		÷ 2.5	
3		÷ 2.5	
4		÷ 2.5	
5		÷ 2.5	
6		÷ 2.5	
7		÷ 2.5	
8		÷ 2.5	
9		÷ 2.5	
10		÷ 2.5	

Master Copy: **Symmetry in the Natural Environment**



Master Copy: **Spinner Game**



Instructions

1. Cut along the solid black lines
2. Fold along the perforated lines, folding one wing backwards and one wing forwards
3. Attach the paper clip to the bottom of the spinner

Spinner Game

Have fun playing the spinner game. Record how far your seed spinner travels in the table below.

Spinner Number	Distance travelled (cm's and mm's)	Use this column to re-arrange the distances travelled from shortest to longest (cm's and mm's)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		

Perimeter Walk

Have fun on your walk exploring different shapes on the green site.

Shapes	Perimeter (cm's or m's)	Area (cm^2 or m^2)
Pavement stone 	1.2m	$18m^2$

Master Copy: **Plotting coordinates**

Where am I on your map?

Can you work out my coordinates?

Where am I on your map?

Can you work out my coordinates?

Where am I on your map?

Can you work out my coordinates?

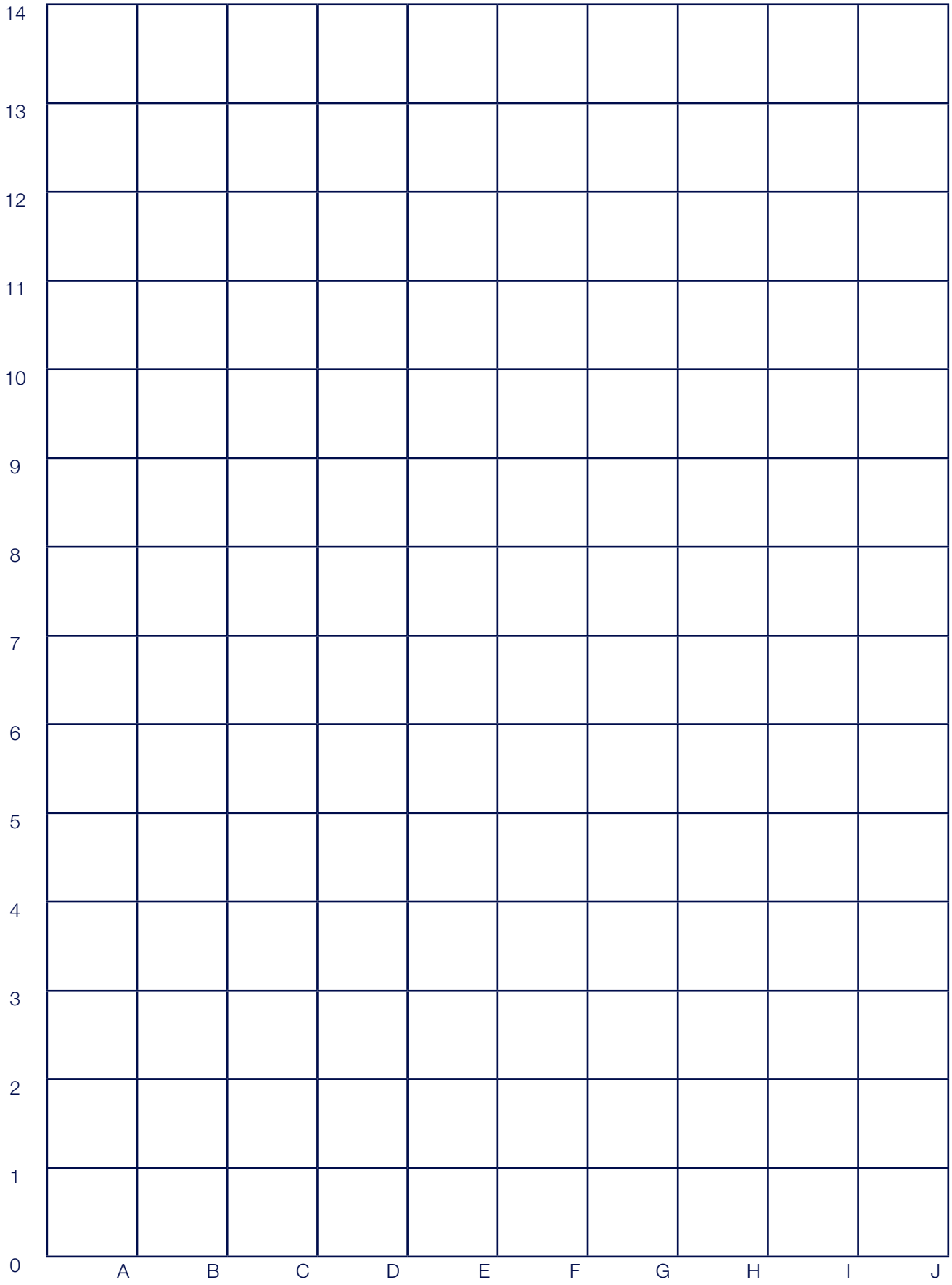
Where am I on your map?

Can you work out my coordinates?

Where am I on your map?

Can you work out my coordinates?

Master Copy: **Template for plotting coordinates**



Master Copy: **Plotting coordinates**

(A, 11)
(C, 11)
(B, 14)

(F, 10)
(H, 10)
(F, 12)
(H, 12)

(B, 5)
(D, 5)
(A, 7)
(E, 7)
(C, 9)

(F, 5)
(H, 5)
(G, 7)

(A, 1)
(E, 1)
(A, 3)
(E, 3)

music

music

Sounds Interesting, Feel the Pulse and Bringing it all Together

Objectives

- To be able to listen carefully
- To be able to identify different sound sources
- To be able to explore instruments
- To be able to explore the use of sounds and how they can be combined
- To be able to create rhythmic patterns based on words and phrases
- To be able to combine layers of sound within simple structures

Year Group

Years 1 & 2 (5 to 7 years)

Duration

2 hours

National Curriculum Objectives

KS1 Music/1bc, 2ab, 4abc, 5ac

Equipment

Noah's Ark

- Cards (Mu1)

Sound Map

- Worksheets (Mu2)
- Clipboards*
- Pencils

Natural Instruments

- Bags*
- Cups
- Bowls
- Elastic bands
- Kitchen roll
- Paper
- Cellotape

Key Words

Slow
Fast
High
Low
Loud
Quiet
Rhythm

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Explain** to them that they are going to be exploring different sounds, making their own musical instruments and creating a piece of music. **Give** the children a health and safety talk.
15 minutes	**Noah's Ark**
	The objective of this activity is for children to be able to listen carefully. **Provide** each child with a card that contains a picture of an animal and ask them to think about the sound or action that their animal would make. **Explain** to the children that there is two of each card and that they must perform the sound or action of their animal to find their partner.
20 minutes	**Sound Maps**
	The objective of this activity is for children to be able to listen carefully and identify different sound sources. **Take** the class on a walk around the site pointing out any different sounds that can be heard along the way. Sit the children in a circle and provide each child with a worksheet, clipboard and pencil. Explain to them that they are going to add to their sound map by recording any sounds that they hear, so if they hear a bird to their left, they would either draw a picture or write the word 'bird' on the left-hand side of their worksheet. **Ask** the children to sit quietly and listen carefully while they are doing this activity.
15 minutes	**Green Man says…**
	The objective of this activity is for children to be able to listen carefully. **Tell** the children about the myth of the Green Man who lives in the woods. Instead of playing the traditional Simon says game, use Green Man says, in which the children must obey the Green Man's commands, for example, nine star jumps, stamp your feet loudly, clap your hands quickly, and ignore commands not given by the Green man.
25 minutes	**Natural Instruments**
	The objective of this activity is for children to be able to explore instruments and to explore the use of sounds and how they can be combined. **Explain** to the children that they are going to make their own natural musical instruments to play in a woodland orchestra. **Provide** the children with a bag for collecting their natural objects from around the site. **Give** the children ideas of the kinds of objects they could use to make sounds, for example, rustling leaves, small sticks, pebbles, stones, and seeds. Once the children have collected their natural objects, provide them with a selection of man-made materials in order to complete their musical instruments.

Lesson Content

TIMES	ACTIVITY
25 minutes	**Woodland Orchestra**
	The objective of this activity is for children to be able to create rhythmic patterns and to be able to combine layers of sound within simple structures.
	Divide the class into groups of four and ask them to think about their favourite animals.
	Together each group has to pick one animal and compose a rhythm with their instruments to the sound of their animal's name. For example cat-er-pill-ar (4 beats), but-ter-fly (3 beats), spi-der (2 beats), bee (1 beat). Get each group to practice their rhythm.
	Bring the class back together and tell them to stand in a circle. Ask the first group to the left to perform their rhythm to the rest of the class, allowing each group in turn to perform.
	The leader will now begin the group performance by playing a rhythm a few times. The leader will then nod to the group on their left to join in with their own rhythm. This continues until every group is included in the performance.
	To bring the performance to a close, the groups slowly come to a stop one at a time.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Praise the children for listening carefully throughout the different activities and explain that this is very important in music. Ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Design and Technology

music

Animal Magic, Play it Again, Painting with Sound and Exploring Singing Games

Objectives

- To be able to listen with attention to detail and develop aural memory
- To be able to identify how music can be used descriptively
- To know that music, like pictures, can describe images and moods
- To be able to make up tunes for their own singing games and add appropriate actions to their songs

Year Group

Years 3 & 4 (7 to 9 years)

Duration

2 hours

National Curriculum Objectives

KS2 Music/1bc, 2b, 3b, 4a

Equipment

Natural Instruments

- Bags*
- Cups
- Bowls
- Margarine tubs
- Elastic bands
- Kitchen roll
- Paper
- Cellotape

Poor Little Bug

- Copies of the song (Mu3)

Picture the Scene

- Pictures (Mu4)

Key Words

Slow
Fast
High
Low
Structure

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Explain** that they are going to be exploring different sounds, making their own musical instruments and creating pieces of music. **Give** the children a health and safety talk.
25 minutes	**Natural Instruments**
	Explain to the children that they are going to make their own natural musical instruments. **Provide** the children with a bag for collecting their natural objects from around the site. **Give** the children ideas of the kinds of objects they could use to make sounds, for example, rustling leaves, small sticks, pebbles, stones, and seeds. Once the children have collected their natural objects, provide them with a selection of man-made materials to complete their musical instruments.
15 minutes	**Follow the Leader**
	The objective of this activity is for children to be able to listen with attention to detail. **Ask** the class to stand in a circle with their musical instruments. The leader must then perform a short rhythmic pattern which the children must repeat. Once the children are feeling more confident ask each child in turn to perform a short rhythmic pattern for the rest of the class to repeat.
25 minutes	**Animal Songs**
	The objective of this activity is for children to be able to identify how music can be used descriptively. **Divide** the class into groups and ask each group to choose one animal. Ask the groups to think about the size of the animal, how it moves and how it behaves. Each group must then create a piece of music. Using their natural instruments, their voices and actions they must create a piece of descriptive music imitating their chosen animal. **Bring** the class back together and allow each group to perform their piece to the rest of the class.
10 minutes	**Poor Little Bug**
	The objective of this activity is for children to be able to make up tunes for their own singing games and add appropriate actions. **Divide** the class into small groups and provide each group with the words to the song ‘Poor Little Bug’. Each group must add, what they think is appropriate music or appropriate actions to the words of the song. **Bring** the class back together and allow each group to perform their piece to the rest of the class.

Lesson Content

TIMES	ACTIVITY
25 minutes	**Picture the Scene**
	The objective of this activity is for children to know that music, like pictures, can describe images and moods.
	Divide the class into small groups and provide each group with a picture of a season.
	Each group must then create a piece of music. Using their natural instruments, their voices and actions they must create a piece of descriptive music which illustrates their picture and/or their mood when they look at the picture.
	Bring the class back together and allow each group to perform their piece to the rest of the class.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and praise the children on their performances. Ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

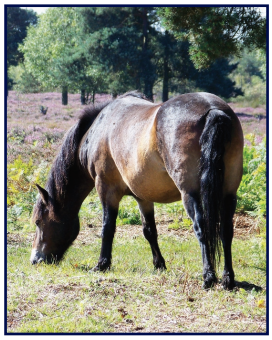
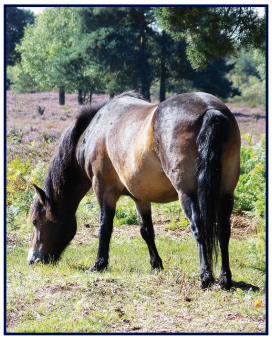
Cross-curricular Links

- Design and Technology

Master Copy: **Noah's Ark**



NATALIE ROGERS




JO MEAYS




PHILIP PRECEY




PHILIP PRECEY



DAVID HARGREAVES



IAN ROSE



JO MEAYS

Sound Map

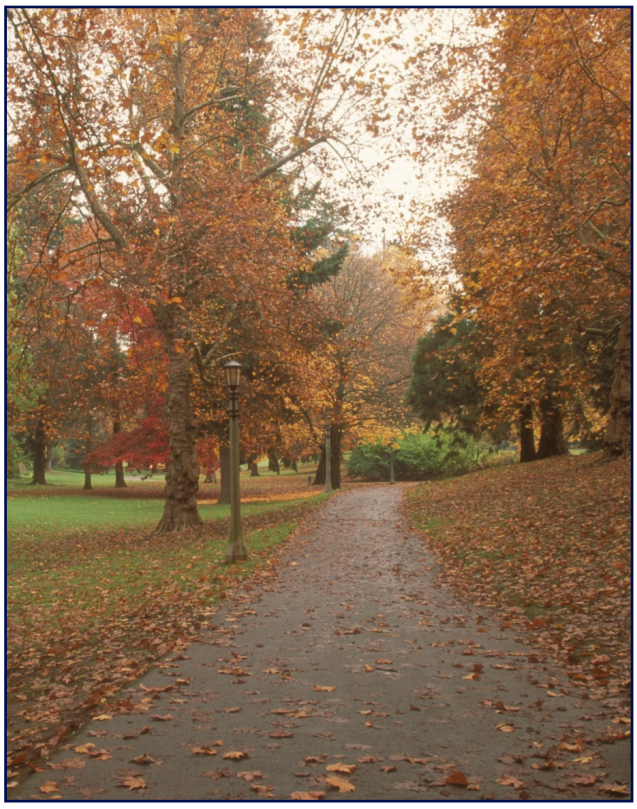
Sit quietly and listen carefully to the different sounds around you.

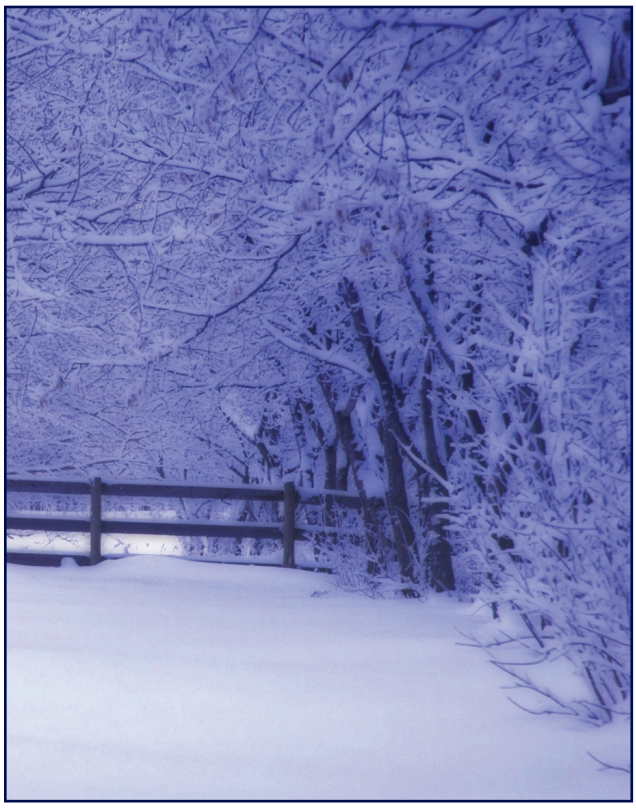
Draw pictures to describe the different sounds you can hear.

Master Copy: **Poor Little Bug**

Hello little spider on the wall
Does anyone really love her at all?
Does anyone brush her hair – does anyone care?
Hello little spider on the wall

Master Copy: **Picture the scene**





physical education

physical education
Outdoor and Adventurous Activities 1

Objectives
- To be able to explore finding different places
- To be able to recognise and describe how their body feels during exercise
- To be able to follow simple routes and trails, orienteering themselves successfully
- To be able to solve simple challenges and problems successfully

Year Group
Years 1 & 2 (5 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 PE/1ab, 3ab, 4b, 8a

Equipment

Hula Hoop Challenge
- Hula hoops*
- Worksheets (PE1)

Orienteering
- Maps of the green site
- Coloured shapes*

Exercise in the Outdoors
- Stop watches*
- Worksheets (PE2)
- Pencils

Scavenger Hunt
- Lists of natural objects (PE3)
- Bags*

Key Words
Orienteering
Maps
Trails
Challenges
Problem solving

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Explain** to the children that they will be using a map to explore the green site, and that they will be completing some problem solving activities. **Give** the children a health and safety talk.
20 minutes	**Hula Hoop Challenge**
	The objective of this activity is for children to be able to solve simple challenges and problems successfully. **Place** ten hula hoops on the floor and provide each child with a worksheet, showing the layout of the hula hoops, numbered from one to ten. The leader must call out the number of one of the hula hoops and the children must work out which hula hoop is being referred to, and run to it. The children must orientate themselves using the worksheet. Once all of the children have orientated themselves and positioned themselves in or near to their chosen hula hoop, discuss as a class which is the correct hoop.
40 minutes	**Orienteering**
	The objective of this activity is for children to be able to explore finding different places and to be able to follow simple routes and trails. **Inform** the class that they will be using a map to find their way around the green site, in order to find coloured shapes that have been hidden. The map will clearly show where the shapes are hidden on the site. **Divide** the class into small groups, each with an adult supervisor. Provide each group with a map of the site. Explain that at each point, each group must collect only one coloured shape, leaving the others for the other groups to collect. **Tell** the class to meet back at the start after 30 minutes. While looking for the shapes stop the children from time to time and ask them to show you where they are on the map. **Bring** the class back together and talk about how they completed the task.
20 minutes	**Exercise in the Outdoors**
	The objective of this activity is for children to be able to recognise and describe how their body feels during exercise. **Explain** to the class that they are going to look at how their bodies are affected by exercise by doing several simple exercises. **Ask** the children to find their pulse in either their wrist or neck, and explain that their pulse will beat faster after exercise. Ask them to count how many times their pulse beats in 30 seconds. Record this onto the worksheet. Now, ask the children to walk around in a circle for one minute and then stop, find their pulse and count how many times it beats in 30 seconds. Record this onto the worksheet.

Lesson Content

TIMES	ACTIVITY
	Then, ask the children to stand still for one minute and then find their pulse and count how many times it beats in 30 seconds. Record this onto the worksheet. Repeat this with other simple exercises (jogging/star jumps). As a class discuss the results. The pulse increases after exercise due to the heart beating faster to increase the flow of oxygen around the body, and slows down after periods of no exercise as the heart beat slows down.
20 minutes	**Scavenger Hunt**
	The objective of this activity is for children to be able to solve simple challenges and problems successfully. **Divide** the class into small groups and provide each group with a list of natural objects that they must collect from around the site and a bag. **Remind** the teams that this is a race, and that they have to decide on the quickest method of collecting all of the natural objects.
10 minutes	**Conclusion**
	Ask the class what skills they think they have used during the session, and highlight the importance of communication and teamwork (Together Everyone Achieves More!). **Discuss** with the class the key points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site. NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Geography
- PSHE and Citizenship

Follow-up Activity

Back at school the teachers can create an orienteering course around the school grounds, which can provide the children with the opportunity to practise their orienteering skills.

physical education
Outdoor and Adventurous Activities 2

Objectives
- To be able to develop the range and consistency of their skills and work with others to solve challenges
- To be able to choose and apply strategies and skills to meet the requirements of a task or challenge
- To be able to work safely

Year Group
Years 3 & 4 (7 to 9 years)

Duration
2 hours

National Curriculum Objectives
KS2 PE/1a, 2ab, 5f, 11abc

Equipment

Orienteering
- Maps of the green site
- Clues (PE4)
- Clipboards*
- Paper
- Pencils

Scavenger Hunt
- Lists of natural objects (PE3)
- Bags*

Key Words
Orienteering
Maps
Trails
Challenges
Problem solving

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Explain** to the children that they will be using a map to explore the green site. Tell them that this is called orienteering and explain how to orienteer themselves by rotating the map. Tell the children that they will also be completing some problem solving activities. **Give** the children a health and safety talk.
30 minutes	**Orienteering**
	The objective of this activity is for children to develop their skills to solve challenges, to be able to choose and apply strategies and skills to meet the requirements of a task and to be able to work safely. **Inform** the class that they will be looking for hidden signs around the site, marked on their maps with an X. **Explain** that each sign will have a number and a letter written on it. When they find a sign, explain to them that they must write the letter next to the corresponding number on their answer sheet. Once they have collected all of the letters, tell the children they must unscramble them to try and spell the name of an animal that lives on the green site. Show them an example of a sign so that they know what they are looking for. **Divide** the class into small groups, each with an adult supervisor and provide each group with a clipboard, a map of the site, an answer sheet and a pencil. Ask the group if any of them have seen a map before. Ask them if they know what a map is and, if so, can they give examples of why they are used. **Tell** the class to meet back at the start after 25 minutes. While looking for the signs stop the children from time to time and ask them to show you where they are on the map. **Bring** the class back together and talk about how they completed the task.
20 minutes	**Problem Solving**
	The objective of this activity is for children to develop their skills to solve challenges and to be able to choose and apply strategies and skills to meet the requirements of a task. Emphasize to the class that the most important aspect of this activity is to complete it without talking. **Divide** the class into two equal groups, and ask them to organise themselves into straight lines, starting with the shortest child and ending with the tallest. Now challenge the children to complete this activity again – this time lining up in order of their birthdays. Finally, get the children to think of their favourite animals. Explain to them that they must line up in alphabetical order using their animals' initial. They can communicate by making the sound of their animal, but without saying its name.

Lesson Content

TIMES	ACTIVITY
20 minutes	**The Human Knot**
	The objective of this activity is for children to develop their skills to solve challenges, to be able to choose and apply strategies and skills to meet the requirements of a task and to be able to work safely.
	Divide the class into two equal groups and ask each group to stand in a circle.
	Ask each child to hold out their left hand and take the hand of someone else at the other side of the circle. Then repeat this with their right hand.
	Explain to the class that they are now 'Human Knots', and must work together as a team to try and untangle themselves. To achieve this, they must either step over or under each other's arms and not let go of each others hands.
	Once the children have completed the task, talk with them about how successful they were. Discuss what went well, and how the task could have been completed using different approaches. Compare how both teams worked together, and which team completed the task first.
	Repeat the task to see if the children use different approaches and improve the time taken to untangle themselves.
10 minutes	**All Sit Down**
	The objective of this activity is for children to develop their skills to solve challenges, to be able to choose and apply strategies and skills to meet the requirements of a task and to be able to work safely.
	Divide the class into two equal groups and ask them to stand in a circle close together.
	Tell the children to turn so that they are all facing in the same direction.
	On the word 'Go' everyone must sit on the knees of the person behind them.
20 minutes	**Scavenger Hunt**
	The objective of this activity is for children to develop their skills to solve challenges, to be able to choose and apply strategies and skills to meet the requirements of a task and to be able to work safely.
	Divide the class into small groups and provide each group with a list of natural objects that they must collect from around the site and a bag.
	Remind the teams that this is a race, and that they have to decide on the quickest method of collecting all of the natural objects.

Lesson Content

TIMES	ACTIVITY
10 minutes	**Conclusion**
	Tell the children they have done well to find the signs and complete the challenges, especially as they weren't allowed to talk to each other during some of the activities. Ask them what skills they think they have used during the session, and highlight the importance of communication and teamwork (Together Everyone Achieves More!). **Discuss** with the class the key points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

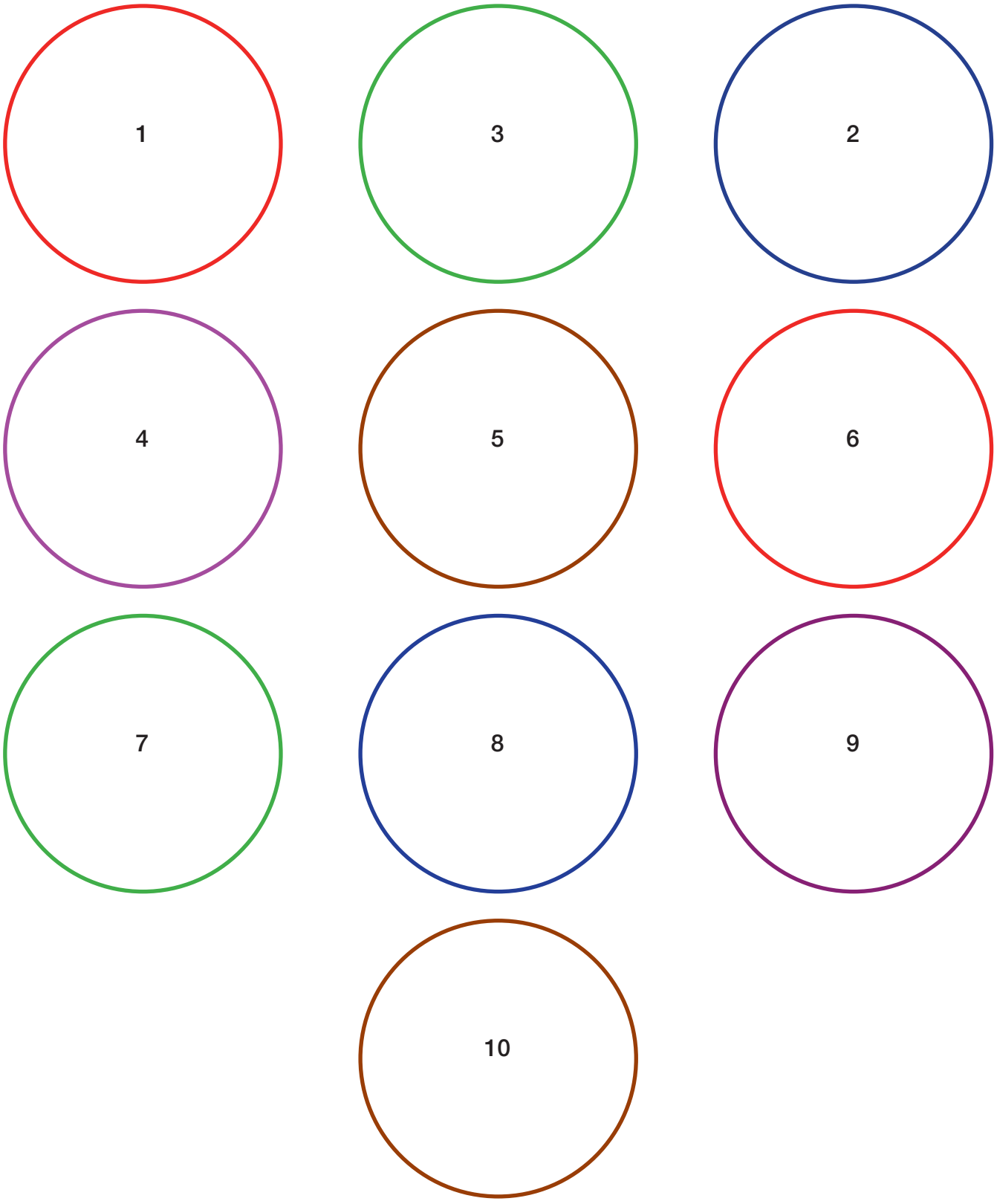
- Geography
- PSHE and Citizenship

Follow-up Activity

Back at school the teachers can create an orienteering course around the school grounds, which can provide the children with the opportunity to practise their orienteering skills.

Hula Hoop Challenge

Have fun completing the hula hoop challenge.



Exercise in the Outdoors

See if you can find your pulse and have fun completing some simple exercises.

Simple Exercises	Number of beats per 30 seconds
After resting	
After 1 minute of walking	
After 1 minute resting	
After 1 minute of jogging	
After 1 minute resting	
After 1 minute of star jumps	
After 1 minute resting	

Scavenger Hunt

Have fun foraging around the green site looking for objects that are listed below:

A big green leaf

A seed

A small brown leaf

A red berry

A long twig

A round stone

A petal

A feather

A blade of grass

A piece of shiny litter

Master Copy: **Orienteering**

Example **1. A**	1. S
2. O	3. D
4. O	5. L
6. E	7. O
8. U	9. W

science

science
Ourselves

Objectives
- To know that humans have bodies with similar parts
- To know that humans have five senses which allow us to find out about the world
- To know that all animals, including humans, grow and change as they become older
- To be able to make and communicate observations and comparisons about humans and other animals
- To know that animals, including humans, move
- To be able to make observations and comparisons about the way animals move
- To know that animals, including humans, are living
- To know that we need to eat and drink to stay alive

Year Group
Year 1 (5 to 6 years)

Duration
2 hours

National Curriculum Objectives
KS1 Science Sc1/1, 2befgh Sc2/1abc, 2abefg, 4ab, 5a

Equipment

Senses
- Worksheets (Sc1)
- Pencils
- Lists of descriptive words (Sc2)
- Bags*

Match-up Game
- Young and adult animal pictures (Sc3)

Minibeast Hunt
- Bug jars*
- Paintbrushes*

Ourselves Quiz
- Quiz (Sc4)
- Paper
- Pencils

Key Words
Senses
Eye/sight/see
Ear/hearing
Nose/smell
Touch/feel
Living/non living
Slither/scurry/crawl
Like/similar

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Inform** them that they will be learning all about themselves and the animals that live in their local environment. Explain that they and animals are all living things and that they all grow, move, need nutrients and are sensitive. **Ask** the children to start by looking at each other looking for similarities between themselves, for example, they all have a head. **Give** the children a health and safety talk.
30 minutes	**Senses**
	The objective of this activity is for children to know that humans have five senses, which allow us to find out about the world. Talk to the children about their five senses: sound, sight, smell, touch and taste, and explain how their senses allow them to find out about the world. **Sound Maps** Sit the children in a circle and provide each child with a worksheet, clipboard and pencil. Explain to them that they are going to add to their sound map by recording any sounds that they hear, so if they hear a bird to their left, they would either draw a picture or write the word 'bird' on the left-hand side of their worksheet. Ask the children to sit quietly and listen carefully while they are doing this activity. **Scavenger Hunt** Explain to the class that their five senses are important in order to learn about different things. Tell the children that they will be concentrating on using their senses, such as touching, feeling, and looking. Divide the class into small groups, each with an adult supervisor and provide each group with a list of descriptive words and a bag. Explain that they must now go for a walk and collect objects to put in their bags from around the site that match each of the descriptive words, remembering to use their senses.
20 minutes	**Match-up Game**
	The objective of this activity is for children to know that all animals, including humans grow and change as they become older. **Divide** the class into two groups. Provide each child in one group with pictures of young animals and provide each child in the other group with corresponding pictures of adult animals. **Explain** to the class that the aim of the game is to find either the younger or older version of their animal. The game can be repeated several times.

Lesson Content

TIMES	ACTIVITY
30 minutes	**Minibeast Hunt**
	The objective of this activity is for children to make and communicate observations about humans and other animals and to be able to make observations and comparisons about the way that animals move.
	Inform the children that they will be searching for minibeasts. Divide the class into pairs and provide each pair with a bug jar and paintbrush. Explain that when they find a minibeast they should transfer it carefully into their jar using the paintbrush so as not to damage them.
	Ask the children what they think the rules are when looking for minibeasts, for example, to be gentle, not to hurt them, and to put them back where they found them. Once the children have caught and observed a minibeast, ask them to let it go and not to re-capture it. Remind the children not to catch minibeasts, which are too big for their bug jars.
	While the children are hunting, ask the children to pay particular attention to the way the minibeasts move, for example, do they slither, scurry or fly.
	Bring the class back together and discuss the different minibeasts that were found and the different ways in which they move. Compare them to other familiar animals and birds.
20 minutes	**Ourselves Quiz**
	The leader must hang the questions around an allocated area of the green site.
	Provide each child with a piece of paper and a pencil, and explain to them that they must find all of the questions and answer them.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session, reiterating the five senses, and the similarities and differences between themselves and the minibeasts that they saw. Also ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- PSHE and Citizenship

Follow-up Activity

Back at school the class can make a bird feeding station outside of their classroom window.
The children could observe the different birds that feed at the station, comparing how they are similar to and different from each other.

science
Growing Plants

Objectives
- To know that plants are living things
- To know that all plants have leaves, stems and flowers
- To know that plants need water to grow
- To know that plants need light to grow
- To understand that growing plants must be treated with care
- To be able to identify different colours and textures within the natural environment

Year Group
Years 1 & 2 (5 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 Science Sc1/1, 2abcefh Sc2/1ac, 3abc, 5ac

Equipment

Bird Seed Game
- Sunlight, water, nutrient and air signs (Sc5)
- Seedbed and seed graveyard signs (Sc5)

Jigsaw Puzzle
- Jigsaw puzzles*
- Labels*

Natures Palettes
- Sticky cards (Sc6)

Sowing Seeds
- Plastic cups or yoghurt pots
- Compost
- Seeds*
- Trowels*

Key Words
Leaves
Stem
Root
Flower

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Ask** the children if they know that plants grow from seeds. Explain that plants are living things; they grow, reproduce, move, need nutrients and are sensitive. Compare plants to non-living things. **Explain** how plants can be divided into different categories: trees, grasses, mosses and wildflowers. Ask the children to name some other types of plants. **Give** the children a health and safety talk.
20 minutes	**Bird Seed Game**
	The objective of this activity is for children to know that plants need water and light to grow. **Introduce** the game by asking the children what the four requirements are for plant growth; sunlight, water, nutrients and air. Also ask the children what they think might prevent seeds from growing, for example, weather, lack of water, being eaten by animals. The leader must position four bases in an area, with each base being one of the four different requirements needed for seed development. They must also allocate seedbed and seed graveyard areas. **Explain** to the children that they must pretend to be seeds and collect all of the requirements needed for survival by running and touching each base. Once they have visited each base they must run to the seedbed, where they can begin to grow. Before the game begins, choose one child to be a bird that will try and tag the seeds. If a child is tagged before reaching the seedbed they must go to the seed graveyard. Play the game again; increasing the number of birds each time to show how predator numbers can vary and can affect seed development.
10 minutes	**Life of a Seed**
	The objective of this activity is for children to know that plants are living things. Begin by asking the class if they know where flowering plants come from (seeds), and if they know that plants produce new seeds. **Explain** that they are going to act out the life of a seed. Ask the children to curl up into a ball on the floor, pretending to be seeds that have been planted into the ground. **Describe** to the class how the ground underneath them is moist and warm and contains lots and lots of nutrients. Each seed should then split and sprout a root *(to demonstrate this each child puts out a leg)*. Soon after the root has grown a small shoot grows up *(this time each child sticks up their hand)*. The shoot reaches for the sun, and grows taller and, as it rains, gets taller still (child stands-up). This results in a strong stem, from which the leaves can grow (outstretched arms). When spring arrives, the beautiful flower opens up (big smiley faces). As the seasons move on, autumn and winter arrive, and cause the plant to die back (children curl back up into a ball).

Lesson Content

TIMES	ACTIVITY
20 minutes	**Plant Jigsaw**
	The objective of this activity is for children to know that all plants have leaves, stems and flowers.
	Ask the class what characteristics plants have in common (leaves, stems, flowers and roots).
	Divide the class into two groups and provide each group with a jigsaw puzzle. Explain that they must fit the jigsaw together and then label the four parts of the plant with the labels provided.
30 minutes	**Natures Palette**
	The objective of this activity is for children to identify different colours and textures within the natural environment.
	Provide each child with a sticky card. Explain to the class that they are going on a nature walk searching for different colours and textures in the environment. Tell them that they must fill up their sticky card using natural objects.
	NOTE: Remind the children to collect only small items, no bigger than their little finger nail.
20 minutes	**Sowing Seeds**
	The objective of this activity is for children to understand that plants must be treated with care.
	Explain to the class that they are going to sow their own pot of seeds to take back to school. Provide each child with a plastic cup or yoghurt pot, and put a hole in the bottom of it so that water can drain away.
	The children must then half fill their cup or pot with compost, before sprinkling in their seeds. The seeds then need to be covered with a thin layer of compost.
	Explain to the class that they must care for their seeds by ensuring that they get the correct amount of light and water.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Ask the children if they can remember what all plants have in common, and what they need to flourish. Also ask them what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Follow-up Activity

Back at school the children can conduct simple experiments using their sown seeds to prove or disprove what plants need in order to survive and flourish.

science
Sorting and Using Materials

Objectives
- To know that there are many materials and that these can be named and described
- To know that every material has many properties which can be recognised using our senses and described using the appropriate vocabulary
- To be able to ask questions and to explore materials and objects using appropriate senses, making observations and communicating these
- To know that objects are made from materials, and that different everyday objects can be made from the same materials
- To be able to test whether materials are waterproof

Year Group
Year 1 (5 to 6 years)

Duration
2 hours

National Curriculum Objectives
KS1 Science Sc1/2abef Sc2/4b Sc3/1abcd

Equipment

Scavenger Hunt
- Lists of descriptive words (Sc2)
- Bags*

Exploring Materials
- Labels (Sc7)
- Pictures (Sc7)

Water Relay
- Buckets* (of water)
- Selection of materials*

Materials in the Environment
- Maps of the green site
- Worksheets (Sc8)
- Clipboards*
- Pencils

Sorting and Using Materials Quiz
- Quiz (Sc9)
- Paper
- Pencils

Key Words
Man-made
Natural
Hard
Soft
Rough
Smooth
Waterproof

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. Review what the children understand about materials; explaining that everything around them is made of different materials, for example, their home, school, clothes and toys. Explain that some materials come from animals, some from plants and some are dug out of the ground. **Give** the children a health and safety talk.
20 minutes	**Scavenger Hunt**
	The objective of this activity is for children to know that every material has many properties, which can be recognised using our senses and described using the appropriate vocabulary. **Explain** to the class about their five senses and that they are important in order to learn about different things. Tell the children that they will be concentrating on touching, feeling, and looking. **Divide** the class into small groups, each with an adult supervisor and provide each group with a list of descriptive words and a bag. Explain that they must now go for a walk and collect objects from around the site that match each of the descriptive words, remembering to use their senses.
10 minutes	**Exploring Materials**
	The objective of this activity is for children to know that objects are made from materials, and that different everyday objects can be made from the same materials. **Divide** the class into small groups, and provide each group with four labels (wood, metal, plastic and stone) and a selection of pictures of different everyday objects. **Ask** the children to sort the pictures into the four groups according to what materials they are made from. Once the children have done this, discuss with the class the choices they have made.
10 minutes	**Sorting Materials**
	The objective of this activity is for children to know that objects are made from materials, and that different everyday objects can be made from the same materials. Allocate four bases (wood, metal, plastic and stone). The leader must then call out the names of some everyday objects and the children must decide what material it is made from and run to the correct base. Any children that choose the wrong material are out of the game. Continue until you have one child remaining who is the winner.

Lesson Content

TIMES	ACTIVITY
20 minutes	**Materials in the Environment**
	The objective of this activity is for children to be able to ask questions and to explore materials and objects using appropriate senses, making observations and communicating these.
	Divide the class into small groups each with an adult supervisor and provide each group with a map of the green site, a worksheet, clipboard and pencil.
	Explain that they will be going on a walk and that they must find the features marked on the map. The children must think about what materials the features are made from, and why they have been used. Demonstrate how to complete the worksheet.
	After 15 minutes, bring the class back together and discuss what they have recorded.
20 minutes	**Water Relay**
	The objective of this activity is for children to be able to test whether materials are waterproof.
	Divide the class into teams, and provide each team with two buckets, one containing equal amounts of water to the other team, and one empty one and a selection of materials.
	Explain to the children that they must use the materials provided to transport their water to their empty bucket at the finish line.
	The children must take it in turns, only taking their turn when the child in front has returned with their chosen material.
	The winning team will be the one who has transported the most water.
20 minutes	**Sorting and Using Materials Quiz**
	The leader must hang the questions around an allocated area of the green site.
	Provide each child with a piece of paper and a pencil, and explain to them that they must find all of the questions and answer them.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and reiterate what senses they used to explore different materials. Also ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Follow-up Activity

Back at school divide the class into small groups. Provide each group with a selection of materials, for example, straws, bricks, wool and fabric etc. Explain to the groups that they must make something that has a purpose using their selection of materials. Remind the children to look at the characteristics of the materials before deciding what to make.

science

Plants and Animals in the Local Environment

Objectives

- To know that there are different kinds of plants and animals in the immediate environment
- To be able to treat animals and the environment with care and sensitivity
- To be able to observe and make a record of animals and plants found
- To know that there are differences between local habitats
- To be able to make predictions about the animals and plants found in different local habitats and then to investigate these
- To know that flowering plants produce seeds
- To know that seeds produce new plants

Year Group

Year 2 (6 to 7 years)

Duration

2 hours

National Curriculum Objectives

KS1 Science Sc1/1, 2abefh Sc2/2ef, 3ac, 5abc

Equipment

Woolly Caterpillars

- Lengths of wool*
- Sticky cards (Sc10)

Wetland Minibeast Hunt

- Pond Nets*
- Trays*
- Worksheets (Sc11)
- Clipboards*
- Pencils

Woodland Minibeast Hunt

- Bug jars*
- Paintbrushes*
- Worksheets (Sc11)
- Clipboards*
- Pencils

Natures Palettes

- Sticky cards (Sc6)

Grassland Minibeast Hunt

- Sweep Nets*
- Bug jars*
- Worksheets (Sc11)
- Clipboards*
- Pencils

Key Words

Habitats
Plants
Animals
Produce
Reproduce

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. **Ask** the children what they understand by the word 'animal' and 'plant' and extend to asking them which animals and plants they expect to find on the green site. **Give** the children a health and safety talk.
20 minutes	**Woolly Caterpillars**
	The objective of this activity is for children to understand that minibeasts may be hard to find in their environment because they will be camouflaged. The leader must hang lengths of wool of varying colours from and around a tree that has a relatively clear area around it. **Divide** the class into two groups and ask them both to line up facing the tree, about five metres away. **Explain** to the children that there are woolly caterpillars hanging from the tree. In turn, the children must approach the tree and collect the first caterpillar that they see and return it to the leader of their group. The leader will stick them onto a piece of card in the order which they are collected. Once all of the caterpillars have been collected, you can look at and discuss the order in which they were returned, and the reasons why creatures use camouflage.
20 minutes	**Woodland Minibeast Hunt**
	The objective of this activity is for children to be able to treat animals and the environment with care, be able to observe and make a record of animals found, to know that there are differences between habitats and to be able to make predictions about the animals found in different habitats and then to investigate them. **Start** by asking the children to describe the woodland habitat, for example, dark, damp, cool and sheltered, and ask them to predict what minibeasts they think they will find in this habitat. **Inform** the children that they will be searching for minibeasts, reminding them that they may be difficult to find, as they will be camouflaged. **Divide** the class into small groups, each with an adult supervisor and provide each group with a bug jar, paintbrush, worksheet, clipboard and pencil. Demonstrate how to complete the worksheet to record the animals that they find. Enforce the idea of handling all of the creatures with great care and respect; using the paintbrush to transfer the minibeasts into the bug jar, put the minibeasts back from where they were collected, gently place logs and stones back in their place, don't collect minibeasts that are too big for the jars. **Bring** the class back together and discuss with them the different minibeasts that were found.

Lesson Content

TIMES	ACTIVITY
20 minutes	**Grassland Minibeast Hunt**
	The objective of this activity is for children to be able to treat animals and the environment with care, be able to observe and make a record of animals found, to know that there are differences between habitats and to be able to make predictions about the animals found in different habitats and then to investigate them. **Start** by asking the children to describe the grassland habitat, for example, light, warm and open, and ask them to predict what minibeasts they think they will find in this habitat. **Inform** the children that they will be searching for minibeasts, reminding them that they may be difficult to find, as they will be camouflaged. **Divide** the class into small groups, each with an adult supervisor and provide each group with a sweep net, bug jar, paintbrush, clipboard, worksheet and pencil. Demonstrate how to complete the worksheet to record the animals that they find. Enforce the idea of handling all of the creatures with great care and respect; using the paintbrush to transfer the minibeasts into the bug jar, put the minibeasts back from where they were collected, gently place logs and stones back in their place, don't collect minibeasts that are too big for the jars. **Bring** the class back together and discuss with them the different minibeasts that were found.
20 minutes	**Wetland Minibeast Hunt**
	The objective of this activity is for children to be able to treat animals and the environment with care, be able to observe and make a record of animals found, to know that there are differences between habitats and to be able to make predictions about the animals found in different habitats and then to investigate them. **Start** by asking the children to describe the wetland habitat, for example, wet, dark, cold and shady, and ask them to predict what minibeasts they think they will find in this habitat. **Inform** the children that they will be searching for minibeasts, reminding them that they may be difficult to find, as they will be camouflaged. The leader must set up one tray for each group by half filling them with water. Divide the class into small groups, each with an adult supervisor and provide each group with a pond net, tray, worksheet, and pencil. Demonstrate how to complete the worksheet to record the animals that they find. Enforce the idea of handling all of the creatures with great care and respect; for example, put the minibeasts back from where they were collected. **Bring** the class back together and discuss with them the different minibeasts that were found. NOTE: At the end of the session, adults must return the minibeasts and water back to the pond carefully, so as not to harm any of the minibeasts.

NOTE:
Teachers must choose only two of the Minibeast Hunts within the lesson plan depending on the habitats that are available on the green site.

Lesson Content

TIMES	ACTIVITY
10 minutes	**Life of a Seed**
	The objective of this activity is for children to know that flowering plants produce seeds and seeds produce new plants.
	Begin by asking the class if they know where flowering plants come from (*seeds*), and if they know that plants produce new seeds.
	Explain that they are going to act out the life of a seed. Ask the children to curl up into a ball on the floor, pretending to be seeds that have been planted into the ground.
	Describe to the class how the ground underneath them is moist, warm and contains lots and lots of nutrients. Each seed should then split and sprout a root (*to demonstrate this each child puts out a leg*). Soon after the root has grown a small shoot grows up (this time each child sticks up their hand).
	The shoot reaches for the sun, and grows taller and, as it rains, gets taller still (*child stands-up*). This results in a strong stem, from which the leaves can grow (*outstretched arms*).
	When spring arrives, the beautiful flower opens up (*big smiley faces*). As the seasons move on, autumn and winter arrive, and cause the plant to die back leaving just a seed in the ground (*children curl back up into a ball*).
30 minutes	**Natures Palette**
	The objective of this activity is for children to know that there are different kinds of plants in the immediate environment.
	Provide each child with a sticky card. Explain to the class that they are going on a nature walk searching for different colours and textures in the environment. Tell them that they must fill up their sticky card using natural objects.
	NOTE: Remind the children to collect only small items, no bigger than their little finger nail.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Recap the different habitats that the children have explored, asking them to remind you of all of the plants and animals that they have seen. Also ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- PSHE and Citizenship

Follow-up Activity

Back at school the children can use a large map of the green site that the class visited, and create a wall display. The children could mark on the areas where they carried out their minibeast hunt by illustrating it with the different minibeasts that they found. They could also mark on the route that they walked when making their natures palettes and attach examples of their work.

science
Variation

Objectives
- To be able to observe and recognise some simple characteristics of animals and plants
- To understand that the group of living things called animals includes humans
- To understand that animals must be treated with care
- To be able to make careful observations to identify similarities
- To know that humans are similar to each other in some ways and different in others
- To be able to group living things in their locality according to observable similarities and differences
- To know that plants in the local environment are similar to each other in some ways and different in others
- To be able to make observations and comparisons between local plants

Year Group
Year 2 (6 to 7 years)

Duration
2 hours

National Curriculum Objectives
KS1 Science Sc1/1, 2abefh Sc2/1abc, 2e, 4ab, 5a

Equipment

Grouping Plants and Animals
- Plant and animal pictures (Sc12)

Minibeast Hunt
- Bug jars*
- Paintbrushes*
- Keys (Sc13)

Plant Sorting
- Worksheets (Sc14)
- Clipboards*
- Pencils

Key Words
Variation
Similarities
Differences

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Introduce** the class to the word 'variation'. Talk about how things can be grouped according to similarities and differences, for example, all living things can be divided into two groups; plants and animals. Discuss with the children the different characteristics between the two and the similarities within the groups, for example, stems, roots, leaves, eyes, head and the ability to move. **Explain** to the children that humans are classified as animals and ask them to explain why they think this is. **Give** the children a health and safety talk.
20 minutes	**Grouping Plants and Animals**
	The objective of this activity is for children to be able to observe and recognise some simple characteristics of animals and plants. **Explain** to the class that they are going to do a simple activity grouping plants and animals. **Divide** the class into small groups and provide each group with the same selection of pictures, and ask them to group them according to their similarities and differences. Once the children are satisfied with the groups, discuss as a class the reasons for their particular groups.
20 minutes	**Human Sorting**
	The objective of this activity is for children to know that humans are similar to each other in some ways and different in others. **Explain** to the children that they need to group themselves according to different characteristics. Give the children an example such as everyone has two eyes, or some children have dark while others have light hair. **Discuss** with the children, the similarities and differences between themselves and explain that they are all classified as humans. Explain that this is 'variation'.
30 minutes	**Woodland Minibeast Hunt**
	The objective of this activity is for children to make careful observations and recognise some simple characteristics of animals and plants, to understand that animals must be treated with care and to be able to group living things in their locality according to similarities and differences. **Start** by asking the children to predict what minibeasts they think they will find in this habitat, and discuss where within the habitat they will find them, for example, under leaves, logs and stones, on bark and in the soil. **Inform** the children that they will be searching for minibeasts and explain that they may be difficult to find. **Divide** the class into pairs and provide each pair with a bug jar, paintbrush and a key. Explain that when they find a minibeast they should transfer it carefully into their jar using the paintbrush so as not to damage them

Lesson Content

TIMES	ACTIVITY
	Enforce with the children the idea of handling all of the creatures with great care and respect; put the minibeasts back from where they were collected, gently place logs and stones back in their place, don't collect minibeasts that are too big for the jars. **Demonstrate** how to use a key in order to group minibeasts according to their similarities and differences. Ask the children to try and identify as many different minibeasts as they can. After twenty minutes bring the class back together and discuss with them the variations between the different minibeasts.
30 minutes	**Plant Sorting**
	The objective of this activity is for children to know that plants are similar to each other in some ways and different in others and to be able to make observations and comparisons between local plants. **Divide** the class into small groups, each with an adult supervisor and provide them with a worksheet, clipboard and pencil. **Ask** each group to observe and record the characteristics of different plants on the green site. **Bring** the class back together and discuss the similarities and differences that were found between the plants.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and go over the similarities and differences that they observed. Also ask the children what they enjoyed about the topic and their session on the green site. NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- PSHE and Citizenship

Follow-up Activity

Back at school the children can use the data collected from the minibeast hunt and the plant sorting and create block graphs to represent the data. Teachers may choose for the children to use ICT.

science
Helping Plants to Grow Well

Objectives
- To know that plants can provide food for us and that some plants are grown for this reason
- To be able to use simple apparatus to measure the height of plants in standard measures
- To be able to use results to draw conclusions
- To know that plants need leaves in order to grow well
- To know that water is taken in through the roots
- To know that water is transported through the stem to other parts of the plant
- To know that plants need healthy roots, leaves and stems to grow well
- To know that plants need water, light and the correct temperature for healthy growth

Year Group
Year 3 (7 to 8 years)

Duration
2 hours

National Curriculum Objectives
KS2 Science Sc1/1a, 2cegij Sc2/1bc, 3abc

Equipment

Food for Free
- Pictures of plants (Sc15)
- Paper plates*

Sowing Seeds
- Plastic cups or yoghurt pots
- Compost
- Seeds
- Trowels*

Measuring Nature
- Tape measures*
- 30cm rulers*
- Worksheets (Sc16)
- Clipboards*
- Pencils

Helping Plants to Grow Well Quiz
- Quiz (Sc17)
- Paper
- Pencils

Plant Jigsaw
- Jigsaw puzzles*
- Labels*

Key Words
Plant
Roots
Stem
Leaves
Flower
Measure

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. Find out what the children already know about plants, asking them what types of plants they can see on the green site. Are they all living? How do they know? Then proceed to asking the children how we can help to ensure that plants grow well, and why we need to do this? **Give** the children a health and safety talk.
20 minutes	**Food for Free**
	The objective of this activity is for children to know that plants can provide food for us and some plants are grown for this reason. The leader must hide pictures of different plants, some edible and some non edible in an allocated area of the green site. The plants will be worth points depending on how good or bad they are to eat. **Provide** each child with a paper plate and explain that they must collect the pictures of the different plants in order to make a meal. Once the children are happy with their meals, discuss with the class the meals they have made and who chose the best and worst plants to eat.
30 minutes	**Measuring Nature**
	The objective of this activity is for children to be able to use simple apparatus to measure the height of plants in standard measures and to be able to use results to draw conclusions. **Divide** the class into small groups and provide each group with a tape measure, 30cm ruler, worksheet, clipboard and pencil. Each group must measure the height of 10 plants, including trees, and the girth of 5 trees. They must choose the appropriate apparatus, or they can use their hand span and then record the measurements on the worksheet. The children must then investigate their results, and conclude which plant was the tallest, shortest, fattest and thinnest.
20 minutes	**Plant Jigsaw**
	The objective of this activity is for children to know that plants need leaves in order to grow well, that water is taken in through the roots and that water is transported through the stem to other parts of the plant. **Ask** the class what characteristics plants have in common; leaves, stem, flowers and roots. **Divide** the class into two groups and provide each group with a jigsaw puzzle. Explain that they must fit the jigsaw together and then label the four parts correctly with the corresponding functions using the labels provided.

Lesson Content

TIMES	ACTIVITY
10 minutes	**Sowing Seeds**
	The objective of this activity is for children to know that plants need water, light and the correct temperature for healthy growth.
	Explain to the class that they are going to sow their own pot of seeds to take back to school. Provide each child with a plastic cup or yoghurt pot, and put a hole in the bottom of it so that water can drain away.
	The children must then half fill their cup with compost, before sprinkling in their seeds. The seeds then need to be covered with a thin layer of compost.
	Explain to the class that they must care for their seeds by ensuring that they get the correct amount of light, water and are kept at the correct temperature.
20 minutes	**Helping Plants to Grow Well Quiz**
	The leader must hang the questions around an allocated area of the green site.
	Provide each child with a piece of paper and a pencil, and explain to them that they must find all of the questions and answer them.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session, reiterating the main parts of a plant and their functions, and how to help plants to grow well. Also ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Maths

Follow-up Activity

Back at school the children can use the seeds that they sowed to conduct an experiment an use the results to conclude what plants need to grow well.

science
Rocks and Soils

Objectives
- To know that beneath all surfaces there is rock
- To be able to group rocks according to observable characteristics
- To know that the type of soil depends on the rock from which it is made
- To be able to identify different types of soil

Year Group
Year 3 (7 to 8 years)

Duration
2 hours

National Curriculum Objectives
KS2 Science Sc1/1abijl, 2e Sc3/1d

Equipment

Rocking Around
- Collection of rocks*
- Keys (Sc18)
- Worksheets (Sc19)
- Pencils

Stuck in the Mud
- Team bands*

Soil Studies
- Collection of soils*
- Soil guides (Sc20)
- Paper
- Pencils
- pH and Moisture Testers*

Making Soil
- Bags*

Rock Solid Quiz
- Quiz (Sc21)
- Paper
- Pencils

Key Words
Igneous
Metamorphic
Sedimentary
Permeable
Impermeable
Slate
Marble
Chalk
Granite
Sand
Clay
Rock
Stone
Pebble
Silt
Loam
Peaty

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. Find out what the children already know about rocks, asking them what is rock and what the different types of rocks are. **Explain** to the class that beneath all of us there is rock, and depending on what type of rock it is the soil type will vary. Ask the children if they know what soil is and what it is made from. **Give** the children a health and safety talk.
20 minutes	**Rocking Around**
	The objective of this activity is for children to be able to group rocks according to observable characteristics. **Provide** the class with a collection of rocks. Divide the class into small groups and provide each group with a key, worksheet and pencil. The children must then look at the characteristics of the rocks identify the rocks and classify them as metamorphic, igneous or sedimentary. **Bring** the class back together, and discuss their answers, asking the children to justify them.
15 minutes	**Stuck in the Mud**
	Set the boundaries of the playing area and select one or two children to be 'it', and provide those children with team bands. **Explain** that those who are 'it' must try and tag the other children. If a child is tagged they are 'Stuck in the Mud' and cannot move until another child frees them by ducking under their outstretched arms.
30 minutes	**Soil Studies**
	The objective of this activity is for children to be able to identify different types of soil. **Provide** the class with a collection of different soils (clay, sandy, chalky, loam, silt and peat). Label the soils one to six, and divide the class into small groups. **Provide** each group with a soil guide, paper and a pencil. The children must use their guides to identify the different soils. **Bring** the class back together, and discuss their answers, asking them to justify them. Next, provide each group with a pH and Moisture Tester. Explain that the children must try to identify the type of soil on the green site using the information that they collect and the soil guide provided.

Lesson Content

TIMES	ACTIVITY
15 minutes	**Making Soil**
	Divide the class into pairs and provide each pair with a bag. Ask the children to collect the ingredients that they need to make soil; leaves, stones, plants and water. Once they have collected all of the items explain to the children that in order to make soil the ingredients need to be broken down. The children can do this by jumping on their bags. **Ask** the children to compare their own soil with the soil that they looked at earlier, identifying the differences between the two and thinking about why they occur. NOTE: Remind the children that they must not collect any living animals.
20 minutes	**Rock Solid Quiz!**
	The leader must hang the questions around an allocated area of the green site. **Provide** each child with a piece of paper and a pencil, and explain to them that they must find all of the questions and answer them.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session, recapping the definition of what are rock and soil and the different types. Also ask the children what they enjoyed about the topic and their session on the green site. NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Geography

Follow-up Activity

Back at school the children can build a wormery to observe how worms mix break down soil. Start by cutting the top off a large plastic drinks bottle and fill the bottom of it with soil containing a number of worms. Then add alternate layers of soil, sand and very thin layers of crushed chalk. They will also need to cover the wormery with a thin mesh and secure with an elastic band so that the worms can breathe but not escape and to keep the wormery in a dark place. After a few days inspect the wormery to see what has happened to the layers of soil and the food on top. The children must remember to release the worms after one week.

science
Light and Shadows

Objectives
- To know that shadows are formed when light travelling from a source is blocked
- To know that shadows are formed when objects block light from the sun
- To know that shadows are similar in shape to the objects forming them
- To know that shadows of objects in sunlight change over the course of the day
- To be able to make and record observations of shadows and to try to explain this using knowledge about light
- To know that the sun appears to move across the sky during the day
- To understand that the sun does not move, and that its apparent movement is caused by the spinning of the earth on its axis

Year Group
Year 3 (7 to 8 years)

Duration
2 hours

National Curriculum Objectives
KS2 Science Sc1/1b, 2al Sc4/3ab

Equipment

Torches
- Torches*
- Examples of shadow puppets*
- White card
- Pencils

Shadow Walk
- Chalk
- Digital camera*

Sunlight
- Compasses*

Light and Shadows Quiz
- Quiz (Sc22)
- Paper
- Pencils

Key Words
Transparent
Opaque
Shadow
Block
Direction
Light
Travels

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Explain** to the class that they are going to be looking at light sources, and investigating how shadows are formed. **Explain** that shadows are formed when opaque objects block a light source and that a light source is always needed. Tell the children that they will only see shadows on sunny days. **Give** the children a health and safety talk.
20 minutes	**Torches**
	The objective of this activity is for children to be able to make and record observations of shadows and to try and explain this using knowledge about light. **Divide** the class into small groups and provide each group with a torch, examples of shadow puppets, white card and a pencil. **Demonstrate** how to make shadow puppets, and ask each group to practise making their own. Once the children are happy with their puppets, ask the children to take it in turns making puppets against the card while another child from the group draws around the shadow. **Bring** the class back together and ask each group to show the rest of the class their different shadow puppets.
40 minutes	**Shadow Walk**
	The objective of this activity is for children to be able to make and record observations of shadows and to try and explain this using knowledge about light. **Divide** the class into small groups and provide them with chalk and a digital camera. Take the children on a walk, during which they can explore different shadows. Remind the children that they will only see shadows if the sun is shining. When the children see shadows ask them to draw around them using their chalk or to take a photograph. Ask them to look at the size of the shadows in relation to the objects forming them, and ask them if shadows always remain in the same place.
20 minutes	**Sunlight**
	The objective of this activity is for children to know that the sun appears to move across the sky during the day and to understand that the sun does not move, and that its apparent movement is caused by the spinning of the earth on its axis. **Divide** the class into small groups and provide each group with a compass. **Ask** each group to determine where the sun rises and sets. Now ask the children to think about the sun and its movements, asking them if the sun moves, if the Earth moves or if they both move. Explain to the class that the apparent movement of the sun is caused by the spinning of the Earth on its axis.

Lesson Content

TIMES	ACTIVITY
20 minutes	**Light and Shadows Quiz**
	The leader must hang the questions around an allocated area of the green site. **Provide** each child with a piece of paper and a pencil, and explain to them that they must find all of the questions and answer them.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Also ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Follow-up Activity

Back at school the children can make sundials. Provide each child with a template of a sundial which they can use as a means to tell the time. This will highlight that shadows move throughout the day according to the position of the sun.

science
Habitats

Objectives
- To be able to identify different types of habitats
- To know that different animals are found in different habitats
- To be able to make predictions about the organisms that will be found in a habitat
- To know that animals are suited to the environment in which they are found
- To be able to group organisms according to observable features
- To be able to use keys to identify local plants or animals

Year Group
Year 4 (8 to 9 years)

Duration
2 hours

National Curriculum Objectives
KS2 Science Sc1/2eij Sc2/4abc, 5abc

Equipment

Woolly Caterpillars
- Lengths of wool*
- Sticky Cards (Sc10)

Woodland Minibeast Hunt
- Bug jars*
- Paintbrushes*
- Minibeast Key (Sc13)

Grassland Minibeast Hunt
- Sweep Nets*
- Bug jars*
- Minibeast Key (Sc13)

Wetland Minibeast Hunt
- Pond Nets*
- Trays*
- Wetland Key (Sc23)

Animal Passports
- Passports (Sc24)
- Pencils
- Coloured crayons

Key Words
Habitat
Camouflage

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during their session. **Introduce** the word 'habitat' and ask the children to think about the different habitats in their local area. Ask the children what elements a habitat must provide, for example, food, shelter and water. **Discuss** with the children what creatures they might find living in the different habitats, for example, butterflies in a meadow and woodlice in a woodland. **Give** the children a health and safety talk.
20 minutes	**Woolly Caterpillars**
	The objective of this activity is for children to know that animals are suited to the environment in which they are found. The leader must hang lengths of wool of varying colours from and around a tree that has a relatively clear area around it. **Divide** the class into two groups and ask them both to line up facing the tree, about five metres away. **Explain** to the children that there are woolly caterpillars hanging from the tree. In turn, the children must approach the tree and collect the first caterpillar that they see and return it to the leader of their group. The leader will stick them onto a piece of card in the order that they are collected. Once all of the caterpillars have been collected, you can look at and discuss the order in which they were returned, and the reasons why creatures use camouflage.
20/30 minutes	**Woodland Minibeast Hunt**
	The objective of this activity is for children to be able to make predictions about the organisms that will be found in a habitat, to be able to group organisms according to observable characteristics and to be able to use keys to identify local plants and animals. **Start** by asking the children to describe the woodland habitat, for example, dark, damp, cool and sheltered, and ask them to predict what minibeasts they think they will find and where within the habitat they will find them, for example, under leaves, logs and stones, on bark and in the soil. **Inform** the children that they will be searching for minibeasts, reminding them that they may be difficult to find, as they will be camouflaged. **Divide** the class into pairs and provide each pair with a bug jar and paintbrush. Explain that when they find a minibeast they should transfer it carefully into their jar using the paintbrush so as not to damage them. Enforce the idea of handling all of the creatures with great care and respect; put the minibeasts back from where they were collected, gently place logs and stones back in their place, don't collect minibeasts that are too big for the jars.

Lesson Content

TIMES	ACTIVITY
	Demonstrate how to use a key to identify different minibeasts, and ask the children to use it to identify some of the minibeasts they collect. **Bring** the class back together and discuss with them the different minibeasts that were found.
20/30 minutes	**Grassland Minibeast Hunt**
	The objective of this activity is for children to be able to make predictions about the organisms that will be found in a habitat, to be able to group organisms according to observable characteristics and to be able to use keys to identify local plants and animals. **Start** by asking the children to describe the grassland habitat, for example, light, warm and open, and ask them to predict what minibeasts they think they will find and where within the habitat they will find them, for example, on the grass, in the air and on the ground. **Inform** the children that they will be searching for minibeasts, reminding them that they may be difficult to find, as they may be well camouflaged. **Divide** the class into pairs and provide each pair with a sweep net, bug jar and paintbrush. Explain that when they find a minibeast they should transfer it carefully into their jar using the paintbrush so as not to damage them. Enforce the idea of handling all of the creatures with great care and respect; put the minibeasts back from where they were collected, don't collect minibeasts that are too big for the jars. Show the children how to use a sweep net to collect grassland minibeasts. Sweep the net slowly from side to side through the long grass. **Demonstrate** how to use a key to identify different minibeasts, and ask the children to use it to identify some of the minibeasts they collect. **Bring** the class back together and discuss with them the different minibeasts that were found.
20/30 minutes	**Wetland Minibeast Hunt**
	The objective of this activity is for children to be able to make predictions about the organisms that will be found in a habitat, to be able to group organisms according to observable characteristics and to be able to use keys to identify local plants and animals. **Start** by asking the children to describe the wetland habitat, for example, wet, dark, cold and shady, and ask them to predict what minibeasts they think they will find and where within the habitat they will find them, for example, in the water, under stones and in the bed. The leader must set up one tray for each group of four children, by half filling them with pond water. Divide the class into groups of four and provide each group with a pond net and allocate them a tray. Enforce the idea of handling all of the creatures with great care and respect.

Lesson Content

TIMES	ACTIVITY
	Show the children how to use a pond net to collect wetland minibeasts. Sweep the net from side to side through the water, being careful not to dredge up too much mud from the bed. Once the children have collected some minibeasts in their net, they must hold the net over their tray and turn it inside out, rinsing the net in the water to ensure no minibeasts remain in the net. **Demonstrate** how to use a key to identify different minibeasts, and ask the children to use it to identify some of the minibeasts they collect. **Bring** the class back together and discuss with them the different minibeasts that were found. NOTE: Teachers must choose only two of the Minibeast Hunts within the lesson plan depending on the habitats that are available on the green site. NOTE: At the end of the session, adults must return the minibeasts and water back to the pond carefully, so as not to harm any of the minibeasts.
20 minutes	**Animal Passports**
	Before the session, the leader will need to put together the Passports, by cutting them (where indicated) and stapling the two pieces together to make a booklet. **Provide** each child with a Passport, pencil and coloured crayons, and ask them to choose one of the minibeasts they found to write about. Remind the children to think carefully about its different features; the number of legs, wings, body segments and colour.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session, asking the children to remind you of the different minibeasts that were found in the different habitats. Also ask the children what they enjoyed about the topic and their session on the green site. NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- PSHE and Citizenship

Follow-up Activity

Back at school the children can create a key to identify other groups that are familiar to them, for example, their family, a pop group, their school class. Their key could also include pictures taken from magazines or maybe photographs of the items they are classifying.

science

Enquiry into Environmental and Technological Context

Objectives

- To be able to ask scientific questions
- To be able to plan how to answer questions
- To be able to decide what kind of evidence to collect
- To be able to collect and record data appropriately
- To be able to identify and describe patterns in data
- To be able to explain their results using their scientific knowledge and understanding

Year Group

Year 6 (10 to 11 years)

Duration

2 hours

National Curriculum Objectives

KS2 Science Sc1/1ab, 2abcefgijklm

Equipment

Investigating Woodlice

- Bug jars*
- Paintbrushes*
- Paper
- Clipboards*
- Pencils

Investigating Dandelions or Daisies

- Rulers*
- Paper
- Clipboards*
- Pencils

Investigating Soil

- pH & Moisture Testers*
- Trowels*
- Paper
- Clipboards*
- Pencils

Picture the Scene

- Pictures (Sc25)
- Pictures of animals & plants (Sc25)
- Blue tac

Key Words

Habitat
Camouflage

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain to them what they will be doing during the session. **Talk** to the children about different features on the site, for example, soil, trees, flowers and minibeasts, and explain that they are going to investigate one of these aspects. **Give** the children a health and safety talk.
20 minutes	**Planning**
	The objective of this activity is for children to be able to ask scientific questions and plan how to answer questions. **Woodlice** Ask the children to consider woodlice; what they look like, what they need in order to survive and ask them to suggest how these factors might affect which habitat they live in. Ask the children to turn their suggestions into a question that could be investigated, for example, where do woodlice prefer to live? Divide the class into small groups and ask them to plan how to investigate their ideas. **Soil** Now ask the children to consider soil; depth, colour, moisture and ask them to suggest how these factors might vary in different habitats. Ask the children to turn their suggestions into a question that could be investigated, for example, do the characteristics of soil vary between the woodland and the grassland? Divide the class into small groups and ask them to plan how to investigate their ideas. **Dandelions or Daisies** Finally, ask the children to consider dandelions or daisies; height, number of leaves, location and ask them to suggest how these factors might vary in different habitats. Ask the children to turn their suggestions into a question that could be investigated, for example, are dandelions or daisies taller in the woodland compared to the grassland? Divide the class into small groups and ask them to plan how to investigate their ideas.
50 minutes	**Investigating**
	The objective of this activity is for children to be able to decide what kind of evidence to collect, and to be able to collect and record data appropriately. **Explain** to the class that they are going to carry out an investigation in order to collect data which will help them answer the questions that they have just discussed. Talk to them about sample size and the type of data that they need to collect and record. Allocate a topic (woodlice, soil, dandelions or daisies) to each group. **Provide** each group with a clipboard, paper and pencil, and the equipment to go with their study. **Tell** the groups what time they must come back, and explain that you will visit each group and talk to them about their investigation.

Lesson Content

TIMES	ACTIVITY
10 minutes	**Evaluation**
	The objective of this activity is for children to be able to identify and describe patterns in data and to be able to explain their results using scientific knowledge and understanding.
	Bring the class back together and ask them to look critically at their results. Ask them if they can see any obvious patterns, if there are any anomalies, if there were any factors that may have affected their results and if there were any limitations.
	Help the children to suggest scientific reasons for their results, for example, more woodlice were found in the woodland because they prefer shelter, the soil was less damp in the woodland because the trees provide shelter and the dandelions or daisies were longer in the woodland because they are trying to find sunlight.
	Explain to the children that back in class they can combine their results in order to draw firm conclusions.
20 minutes	**Picture the Scene**
	Divide the class into three teams. Explain to the class that each team has the same picture of a scene on which they have to attach pictures of animals and plants to the correct habitats. The pictures will be placed away from the teams so they must run to the picture.
	Each team has to try and attach all of the pictures in the quickest time. Once one team has attached all of the pictures in the correct habitats the other two teams must stop.
	The winning team are those who attach the most pictures to the correct habitats.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- Maths

Follow-up Activity

Back in class the children can use the data collected from this activity to create bar graphs or pie charts using ICT and compare their results.

science
Life Cycles

Objectives
- To know that flowering plants reproduce
- To know that seeds can be dispersed in a variety of ways
- To be able to make careful observations of fruits and seeds, to compare them and use results to draw conclusions
- To know that insects pollinate some flowers
- To know that plants produce flowers, which have male and female organs, seeds are formed when pollen from the male organ fertilises the ovum
- To understand the lifecycle of flowering plants; including pollination, fertilisation, seed production, seed dispersal and germination

Year Group
Year 5 (9 to 10 years)

Duration
2 hours

National Curriculum Objectives
KS2 Science Sc1/1a, 2b Sc2/1b, 3abcd

Equipment

Seed Dispersal
- Balloon
- Small pieces of paper
- Hitchhiker seeds*
- Soft toy animal*
- Pin*

Seed Walk
- Fruits and Seed Guides (Sc26)

Sweet Nectar
- 2 jars* (containing flour & sweets)

Jigsaw Puzzle
- Jigsaw puzzles*
- Labels*

Plant Lifecycle
- Cards (Sc27)

Key Words
Root
Stem
Leaves
Flower
Seeds
Fruit
Stamen
Sepals
Petals
Stigma
Dispersal
Life cycle
Pollination
Fertilisation

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and explain briefly what they will be doing during the session. Review the children's understanding of seeds; ask them if they know what a seed is, where seeds come from, what happens to the flower before it can make a seed, and what plants and seeds require in order to grow. **Give** the children a health and safety talk.
10 minutes	**Seed Dispersal**
	The objective of this activity is for children to know that seeds can be dispersed in a variety of ways. The leader must prepare a blown-up balloon filled with small pieces of paper, and have a hitchhiker seed, a soft toy animal and a pin. **Explain** to the children that all plants need to disperse their seeds explaining the reasons why and the different methods used. Show the children the blown-up balloon. Ask them which method of dispersal they think it might represent. Pop the balloon with the pin, and talk to them about seeds that are dispersed by exploding. Show the children the hitchhiking seeds. Ask them which method of dispersal they think it might represent. Ask a child to throw the seed at somebody wearing a fleecy top, and talk to them about seeds that are dispersed by hitchhiking. Show the children the soft toy animal. Ask them which method of dispersal they think it might represent and talk to them about seeds that are dispersed by animals.
30 minutes	**Seed Walk**
	The objective of this activity is for children to be able to make careful observations of fruits and seeds and to compare them and use results to draw conclusions. **Tell** the children that they are going to go on a walk looking for different types of seeds. Provide the class with Fruits and Seed Guides and bags. **Explain** that when they find a seed they must use their guides to identify it and find out how it is dispersed, for example, wind, explosion, water and animals.
20 minutes	**Seed Olympics**
	The objective of this activity is for children to know that seeds can be dispersed in a variety of ways. **Divide** the class into three equal groups. **Explain** that the first group will be the 'Exploders'. Tell the children that they must build up energy before they can explode and scatter their seeds. The children will do this by doing lots of star jumps between the start and finish lines of the race. The second group will be the 'Hitchhikers'. Tell the children that they can only be dispersed by becoming attached to an animal or bird that carries them away to a new area. The children are only allowed to move with one pair of feet on the ground at a time. The children can move to the finish line by 'piggy back', 'wheel barrow' or any other way, which involves only one pair of feet.

Lesson Content

TIMES	ACTIVITY
	The third group will be the 'Drifters', which can only be dispersed by the wind. This group of children must spin one by one to the finish line. The winners are the first team to reach the finish line and plant themselves in the seedbed.
10 minutes	**Sweet Nectar**
	The objective of this activity is for children to know that insects pollinate some flowers. The leader must prepare two jars each containing sweets and different coloured flour. **Explain** to the children that insects pollinate some flowers. Show the class the jars and explain that they represent flowers, the sweets represent nectar, and the flour represents the pollen. The children must pretend to be insects flying between the flowers. **Ask** the children to line up. The leader will walk along the line allowing each child to pick one sweet from the jar, and another adult will do the same from the opposite end. The leaders will cross over in the middle. Ask the children to watch what happens to the flour in the two jars as sweets are picked out. The children should notice that the different coloured flours become mixed up in the same way that pollen is mixed up when it is transferred from one flower to another by insects. Explain that this process is called pollination and allows fertilisation to occur.
15 minutes	**Jigsaw Puzzle**
	The objective of this activity is for children to know that plants produce flowers, which have male and female organs and that seeds are formed when pollen from the male organ fertilise the ovum. **Divide** the class into two groups and provide each group with a jigsaw puzzle and labels. Explain to the group that they must piece together the jigsaw and label its parts correctly. Next, tell the children that they must use the function cards and match them to the parts of the plant.
15 minutes	**Plant Lifecycle**
	The objective of this activity is for children to understand the lifecycle of flowering plants; including pollination, fertilisation, seed production, seed dispersal and germination. **Divide** the class into smaller groups and provide each group with a set of cards that illustrate a plant lifecycle. Each group must sort the elements of the lifecycle into the correct order.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session, reiterating the different methods of dispersal and the lifecycle of plants. Ask the children what they enjoyed about the topic and their session on the green site. NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- PE

Follow-up Activity

Back at school the children can conduct a simple experiment to learn about germination, and what seeds need in order to germinate. The children could test whether water, soil, warmth and light have an effect on seed germination, remembering to have one control group. Any observations and data could be recorded and presented using ICT.

science
Interdependence and Adaptation

Objectives
- To be able to use keys to identify animals in a local habitat
- To know that different animals and plants are found in different habitats
- To know that animals and plants in a local habitat are interdependent
- To understand how animals and plants in a local habitat are suited to their environment
- To know that food chains can be used to represent feeding relationships in a habitat
- To know that food chains begin with a plant (the producer)

Year Group
Year 6 (10 to 11 years)

Duration
2 hours

National Curriculum Objectives
KS2 Science Sc1/1a Sc2/1c, 4ab, 5bcde

Equipment

Animal Adaptations
- Collection of cut out body parts (Sc28)
- Split pins*

Food Chains
- Cards (Sc29)

Minibeast Hunt

Grassland Habitat
- Sweep nets*
- Bug jars*
- Paint brushes*

Wetland Habitat
- Pond nets*
- Trays*

Woodland Habitat
- Bug jars*
- White sheets*
- Paint brushes*

Chain Reaction
- Yellow bucket*
- 7 smaller buckets*
- Small balls*

Natures Palette
- Sticky cards (Sc6)

Key Words
Habitat
Interdependence
Adaptation
Food Chain
Producer
Consumer
Energy
Predator
Prey

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Ask** the children if they know what a habitat is and explain to them that all plants and animals are adapted to their particular habitat, for example, by camouflage. Talk to the children about the ways in which plants and animals can be classified and explain to them how to use simple keys. **Give** the children a health and safety talk.
20 minutes	**Animal Adaptations**
	The objective of this activity is for children to understand how animals in a local habitat are suited to their environment. **Divide** the class into small groups, and allocate a habitat to each group (grassland, wetland or woodland). **Provide** the class with a collection of cut out animal body parts, for example, heads, thoraxes, abdomens, legs, eyes, wings and antennae, and split pins, and ask each group to create an animal that would live in their habitat. It can be either an existing or make believe animal. When the children are finished, bring the class back together and discuss how their animals would live successfully with the features they have provided for them.
25 minutes	**Minibeast Hunt**
	The objective of this activity is for children to be able to use keys to identify animals in a local habitat and to know that different animals are found in different habitats. The leader must choose a habitat (grassland, wetland or woodland) that is present on the green site and provide the class with the relevant resources. **Start** by asking the children to describe the habitat, for example, dark, light, damp, dry, warm, cool, sheltered and open. Ask the children to predict what minibeasts they think they will find and where within the habitat they will find them, for example, under leaves, logs and stones, on bark and in the soil. **Inform** the children that they will be searching for minibeasts, reminding them that they may be difficult to find, as they will be camouflaged. Enforce the idea of handling all of the creatures with great care and respect; put the minibeasts back from where they were collected, gently place logs and stones back in their place, don't collect minibeasts that are too big for the jars. **Demonstrate** how to use a key to identify different minibeasts, and ask the children to use it to identify some of the minibeasts they collect.
20 minutes	**Natures Palette**
	The objective of this activity is for children to know that different plants are found in different habitats. **Provide** each child with a sticky card. Explain to the class that they are going on a nature walk searching for different colours and textures in the environment. Tell them that they must fill up their sticky card using natural objects. NOTE: Remind the children to collect only small items, no bigger than their little finger nail.

Lesson Content

TIMES	ACTIVITY
15 minutes	**Food Chains**
	The objective of this activity is for children to know that animals and plants in a local habitat are interdependent, to know that food chains can be used to represent feeding relationships in a habitat and to know that food chains begin with a plant, which is the producer.
	Explain to the children that all plants and animals are interdependent and are represented by food chains. Talk to the children about the different elements of food chains, and as a class discuss different examples. Ask them to act out the different elements and identify the producers, consumers and top predators. **Divide** the class into small groups, and provide each with a set of cards that illustrate different food chains. Each group must work out the correct order of the food chain, and then swap their cards with the other groups.
20 minutes	**Chain Reaction**
	The objective of this activity is for children to know that food chains can be used to represent feeding relationships in a habitat.
	The class must remain in the same groups. A yellow bucket must be placed in the centre of an allocated area containing lots of 'energy' balls. Each group must line up in order of their food chain, with the suns' standing near to the yellow bucket, the producers next in line and the consumers standing furthest away (similar to the spokes of a wheel). Each food chain will have a smaller bucket by their top predator. The game begins with the suns' collecting energy and throwing it to the producers in their chain. This sequence will continue until all of the energy balls have been used and transferred along the chains. The winning food chain will be the one that has the highest number of 'energy' balls in their bucket at the end.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session. Ask the children to recap the components of a food chain, and ask them what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- PSHE and Citizenship

Follow-up Activity

Back at school the children can create their own food chain mobiles. The children must draw the different elements of a food chain and tie them together with string. The string will represent the flow of energy. They could then hang these from the ceiling to create a display.

science
Forces in Action

Objectives
- To know that the Earth and objects are pulled towards each other; this gravitational attraction causes objects to have weight
- To know that weight is a force and is measured in Newtons
- To be able to make careful measurements of force using a forcemeter
- To be able to check measurements by repeating them
- To know that several forces may act on one object
- To know that when an object is submerged in water, the water provides an upward force (up-thrust) on it
- To know that air resistance slows moving objects
- To understand that when an object falls, air resistance acts in the opposite direction to the weight

Year Group
Year 6 (10 to 11 years)

Duration
2 hours

National Curriculum Objectives
KS2 Science Sc1/1b, 2efgijk Sc4/2bcde

Equipment

Global Gravity
- Globe*
- Models*

Measuring Forces
- Worksheets (Sc30)
- Bags*
- Forcemeters*
- Clipboards*
- Pencils

Parachute Game
- Parachute*

Sink or Swim
- Buckets* (of water)
- Plastercine*
- Marbles*

Tug of War
- Rope*

Key Words
Force
Weight
Gravity
Up-thrust
Newton
Forcemeter
Air resistance

Lesson Content

TIMES	ACTIVITY
10 minutes	**Introduction**
	Start by introducing yourself to the class and briefly explain what they will be doing during the session. **Discuss** with the children what they already know about forces and explain that forces are at work everywhere and can be large or small. Ask them to give some examples of forces that they experience in everyday life (gravity, weight, tension, friction, wind, upward thrust, pushing and pulling). Get the children to act out some forces on each other. **Give** the children a health and safety talk.
10 minutes	**Global Gravity**
	The objective of this activity is for children to know that the Earth and objects are pulled towards each other and that this gravitational attraction causes objects to have weight and to know that weight is a force and is measured in Newton's. Show the class a large globe and attach three model people to different areas. **Ask** the children what force is acting on the people, and what they think will happen to the models if gravity didn't exist. Ask them to explain what gravity is. Encourage them to think about the other forces acting on them and why they don't fall off the earth. Finally, ask them who first discovered gravity and how (Newton and the apple).
40 minutes	**Measuring Forces**
	The objective of this activity is for children to be able to make careful measurements of force using a forcemeter and to be able to check measurements by repeating them. **Divide** the class into small groups and provide each group with a worksheet, clipboard, pencil and a bag. Take the class on a walk and explain that they must collect all the items on their list. Once the children have done this, provide them with a forcemeter, and ask them to weigh each set of objects, recording their results in Newton's on their worksheet. Next, the children must swap their objects with another group and repeat the weighing and recording process.
10 minutes	**Parachute Game**
	The objective of this activity is for children to know that air resistance slows moving objects and that air resistance acts in the opposite direction to weight. **Provide** the class with a parachute and ask them to hold it taut at waist height. On the count of three, the children must raise their arms, lifting the chute over their heads. Then pull the chute behind them and sit down with their bottoms on the edge of the chute. This creates a large mushroom shape. Whilst inside the mushroom, discuss the reason why the parachute remains inflated.

Lesson Content

TIMES	ACTIVITY
15 minutes	**Sink or Swim**
	The objective of this activity is for children to know that when an object is submerged in water, the water provides an upward force on it.
	Divide the class into small groups and provide each group with a bucket of water and some Plastercine.
	The children must change the shape of their Plastercine so that it floats.
	Bring the class back together and discuss why the Plastercine did not float in its originals shape (too heavy). Explain to the class that if you increase the surface area of the Plastercine it allows a greater amount of upward force from the water.
15 minutes	**Tug of War**
	The objective of this activity is for children to know that several forces may act on one object.
	Divide the class into two teams and tell them to line up facing each other for a Tug of War competition.
	Provide the class with a long piece of rope and mark a central point. Explain that the object of the game is to pull the opposing team across the central point.
	After the competition, discuss the different forces acting on the rope, and ask the class why they think a particular team won or lost.
10 minutes	**Conclusion**
	Discuss with the class the key points that were talked about throughout the session and ask the children what they enjoyed about the topic and their session on the green site.
	NOTE: Remind the children to wash their hands back at school.

Cross-curricular Links

- PE

Follow-up Activity

Back in class provide the children with a worksheet illustrating a tug of war competition. The children can draw on arrows to represent the different forces acting on the situation. They could use different coloured arrows to show the different forces acting on the rope and themselves.

Sound Map

Sit quietly and listen carefully to the different sounds around you.

Draw pictures to describe the different sounds you can hear.

Scavenger Hunt

Have fun foraging around the green site looking for objects that match the descriptive words below:

Soft

Hard

Rough

Smooth

Shiny

DULL

Wet

DRY

Green

Brown

Black

Yellow

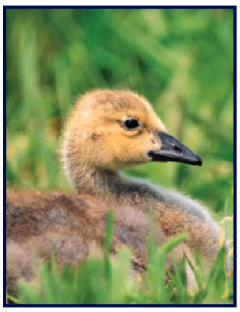
round

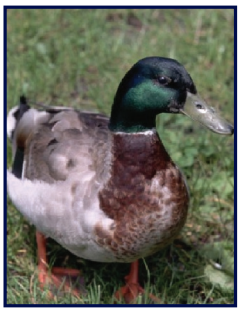
FLAT

Master Copy: **Match-up Game**

RICHARD BURKMAR

DAMIAN WATERS





NATALIE ROGERS

PHILIP PRECEY

DAVID HARGREAVES

JO MEAYS

JO MEAYS

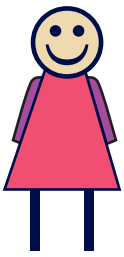
DAVID HARGREAVES

DAVID HARGREAVES

PHILIP PRECEY

PHILIP PRECEY

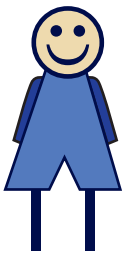
Master Copy: **Ourselves Quiz**

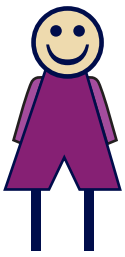


Question 1

Which of these things is not an animal?

A. A horse
B. A human
C. An umbrella

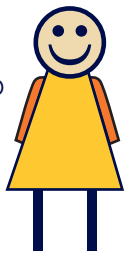


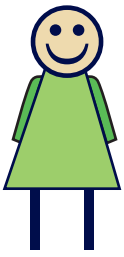


Question 5

Which part of your body do you use for seeing things?

A. Your eyes
B. Your ears
C. Your nose

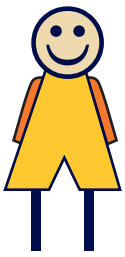




Question 2

Which of these animals cannot fly?

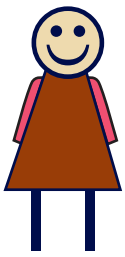
A. A snail
B. A bird
C. A dragonfly

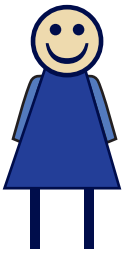


Question 6

A sheep, a fish and an ant all have…

A. Eyes
B. Legs
C. Fins

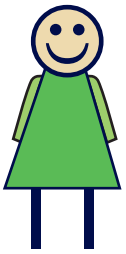




Question 3

Which of these grow into a cow?

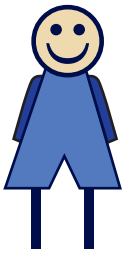
A. A lamb
B. A calf
C. A puppy

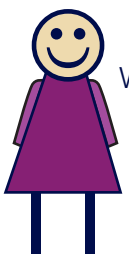


Question 7

Which of your senses do you use when you are on the telephone?

A. Sense of sight
B. Sense of hearing
C. Sense of taste

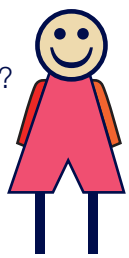


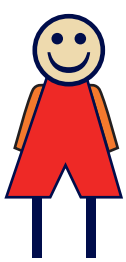


Question 4

Which of these things is true?

A. All humans have one ear
B. All humans start off as babies
C. All humans grow to the same size

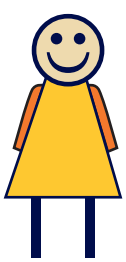




Question 8

Which of these has the most legs?

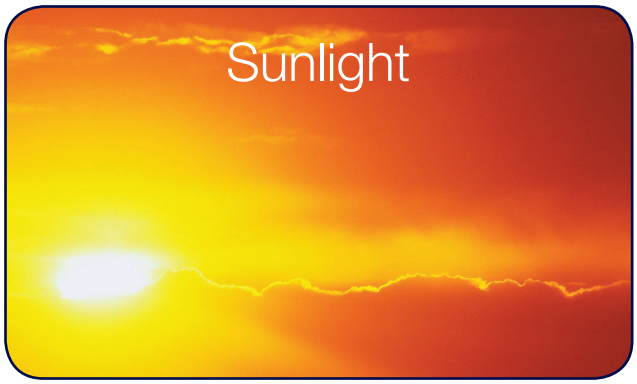
A. A bee
B. A horse
C. A human



Master Copy: **Bird Seed Game**

Seed bed

Seed graveyard

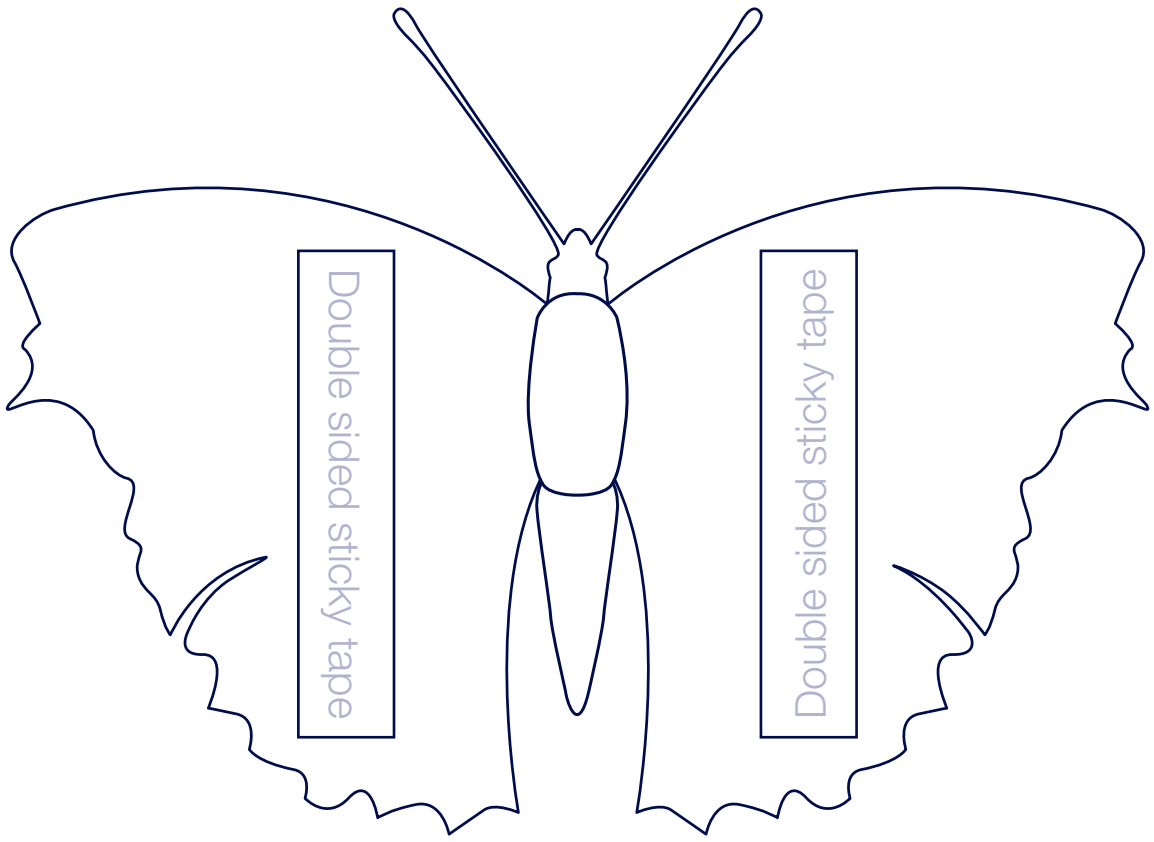


Master Copy: **Nature's Palette**

Bookmark Style

Double sided sticky tape

Butterfly Style



Master Copy: **Exploring Materials**

Wood	Metal	Plastic	Stone
			
			
			

JO MEAYS

Materials in the Natural Environment

Have fun looking for the different features listed below.

Can you workout which material they are made of and describe the properties of the material. One box has been left blank for you to find your own feature.

Feature	Material	Properties
		
		
		
		
		
		

Master Copy: **Sorting and Using Materials Quiz**

Question 1

Why are torches made from metal and rubber?

A. So that it will bounce if you drop the torch
B. So that you don't get a shock from the electricity
C. So that you can use it as a hammer

Question 2

What material would you choose to wear on a cold day?

A. Thick wool-because its fibres hold warm air
B. Thin wool-so that you can loose heat quickly
C. Thin cotton-because we've got central heating

Question 3

What does translucent mean?

A. It lets light through one way but not the other
B. It lets some light through, but not a picture
C. It lets you see a picture but doesn't let light through

Question 4

Why would you use paper towels to mop up spills?

A. They are very absorbent
B. They would move the spillage around the surface
C. They are blue

Question 5

Why is glass a suitable material for making windows?

A. It cuts easily
B. It comes in neat squares and rectangles
C. You can see through it

Question 6

Which material is waterproof?

A. Paper
B. Plastic
C. Cotton

Question 7

Where does cotton come from?

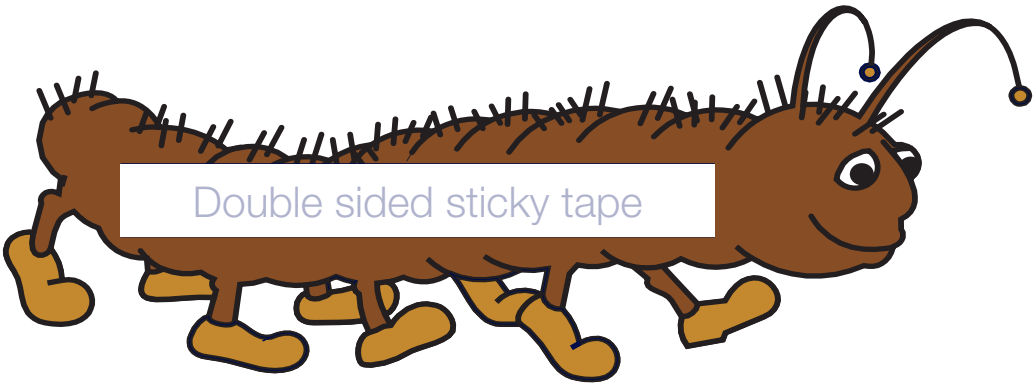
A. An animal
B. A plant
C. The ground

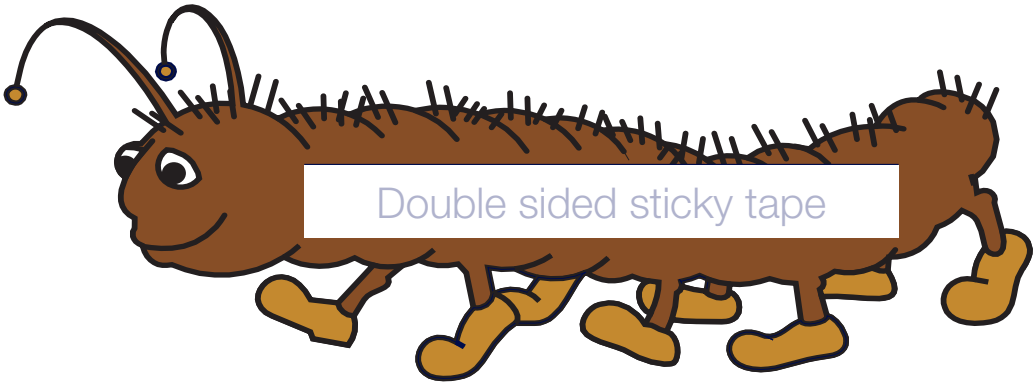
Question 8

What is special about transparent materials ?

A. You can see right through them
B. They block out the light
C. They let the light pass through them, but not a picture

Master Copy: **Woolly Caterpillars**

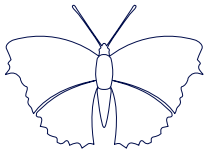




Minibeast Hunt Recordings

Have fun hunting in the different habitats looking for plants and animals.

Show what you find by completing the table below.

Plant or Animal	Draw a picture of a minibeast, or stick on a leaf from a plant to show what you have found	Type of Habitat (woodland, grassland or wetland)
Animal		*Grassland*

Master Copy: **Grouping Plants and Animals**


DEBBIE KING


IAN ROSE


NEIL ALDRIDGE


PHILIP PRECEY


RICHARD BURKMAR


PHILIP PRECEY


P. JENKINS


RICHARD BURKMAR


NATALIE ROGERS


RICHARD BURKMAR


JO MEAYS

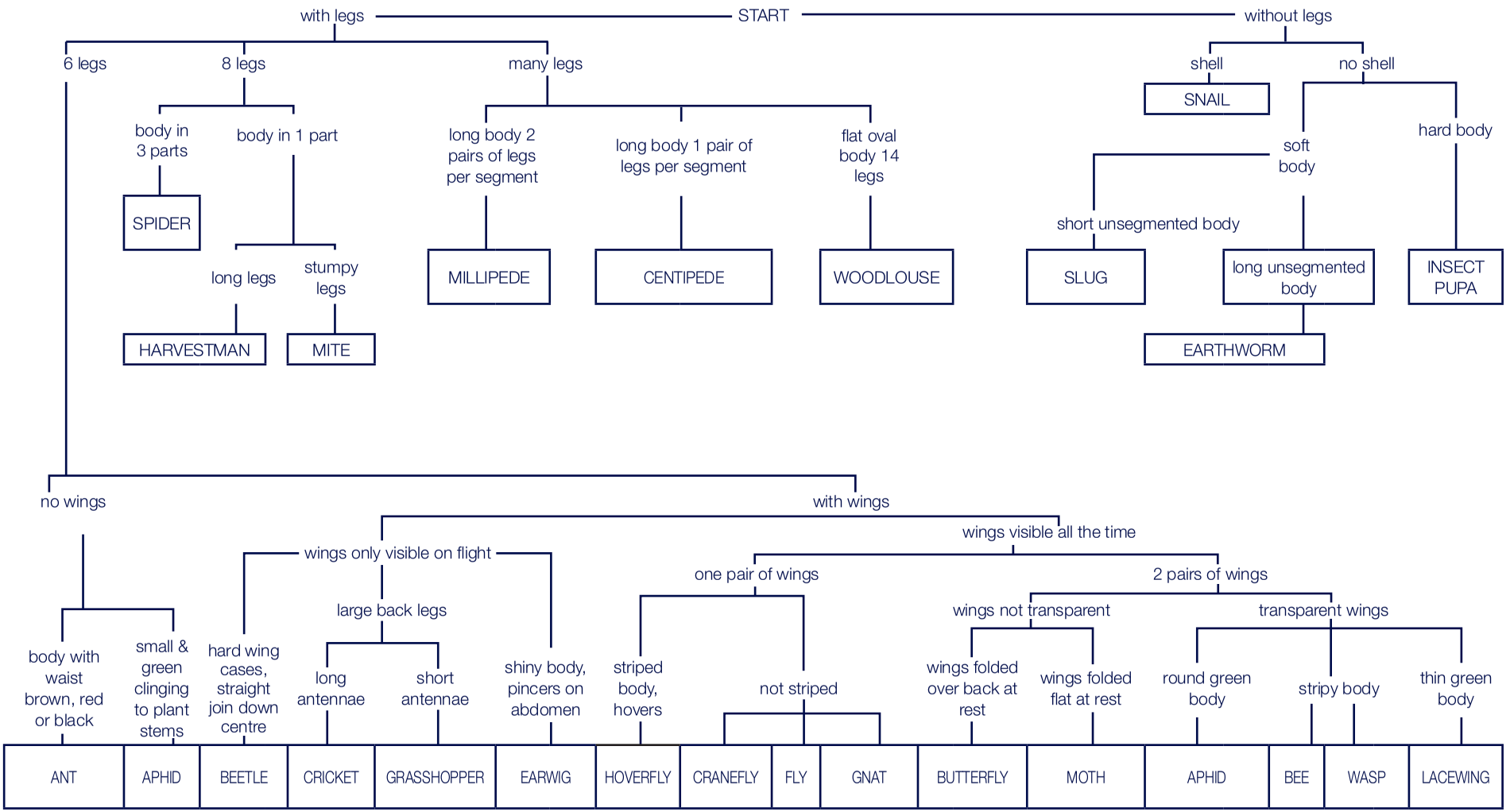

PHILIP PRECEY


PHILIP PRECEY


SUE TATMAN


JO MEAYS

Minibeast Key



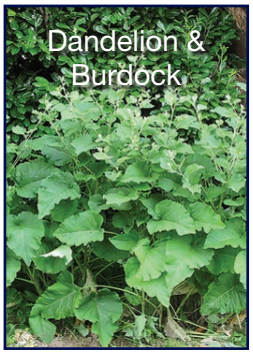
Plant Sorting

Have fun looking for different plants.
Write the name of, or draw a picture of the different plants that you observe and record their characteristics.

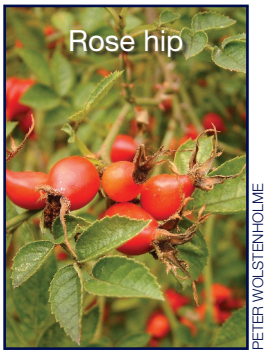
Plant	Height (cm's)	Colour	Number of Flowers	Number of Petals	Number of Leaves
Buttercup 	*23cm*	*Yellow*	*2*	*5*	*7*

Master Copy: **Food for Free**

JOAN MASDUE'S



PETER WOLSTENHOLME



PETER WOLSTENHOLME

Cep

The most excellent wild mushroom. Very tasty and expensive in restaurants.

5 points

Dandelion & Burdock

Burdock has a huge root than can be eaten. The whole of the dandelion can be eaten. Very tasty when eaten together.

4 points

Acorns

Must be washed and prepared thoroughly, and can then be used to make flour and bread.

4 points

Rose hips

Contain more vitamin C than oranges and are easy to find.

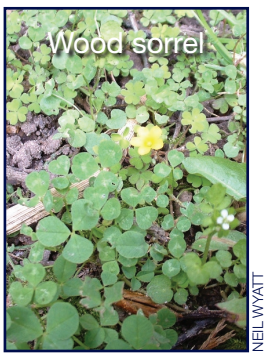
3 points

Jack by the hedge

Tastes similar to garlic, and can be found all year round.

3 points

STEFAAN CHRISTOPHERS



NEIL WYATT

SUE TATMAN

PHILIP PRECEY

Wild carrot

It is a relative of the domestic carrot, but much smaller and white in colour.

2 points

Wood sorrel

Tastes similar to apple peel, but has no nutritional value.

0 points

Guelder rose

Cannot eat any part of it. It would cause an upset tummy.

-2 points

Panther cap

Can be hallucinogenic if eaten even in small quantities. Can cause death if eaten in large quantities.

-4 points

Hemlock

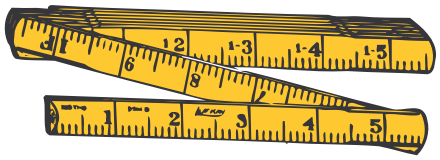
Years ago it was used as a poison. Looks similar to wild carrot, so be careful .

-5 points

Measuring Nature

Have fun measuring the trees and plants.

Record the measurements of your chosen trees and plants in the table below.



Tree/Plant	Height (cm/m)	Girth (cm)	Equipment used
Plant 1	36cm		Tape measure

Tree/Plant	Tallest (cm/m)	Shortest (mm/cm/m)	Fattest (cm)	Thinnest (mm)

Master Copy: **Helping Plants to Grow Well Quiz**

Question 1

What would you use to measure a plant?

A. Spirit level
B. Ruler
C. Thermometer

Question 2

Why do the leaves of a plant turn to the sun?

A. They shade the stem and roots from sunlight
B. The plant needs the heat of the sun to keep warm
C. They are factories using the Sun's light to make oxygen and food for the plant

Question 3

What is the function of a plants flower?

A. To transport water
B. To support the plant
C. To attract insects

Question 4

Can you give a pot plant too much water?

A. No. Some plants grow in water
B. Yes. If you over water a plant, it can rot and die
C. No. Plants can never get enough water

Question 5

If plants don't move around, how do they grow in new places?

A. They grow out under the ground and pop up somewhere new
B. By magic!
C. Their seeds are spread by the wind, by water and by animals

Question 6

What is the function of a plants roots?

A. To absorb water and nutrients
B. To attract insects
C. To turn sunlight into oxygen and food for the plant

Question 7

Can plants grow in the dark?

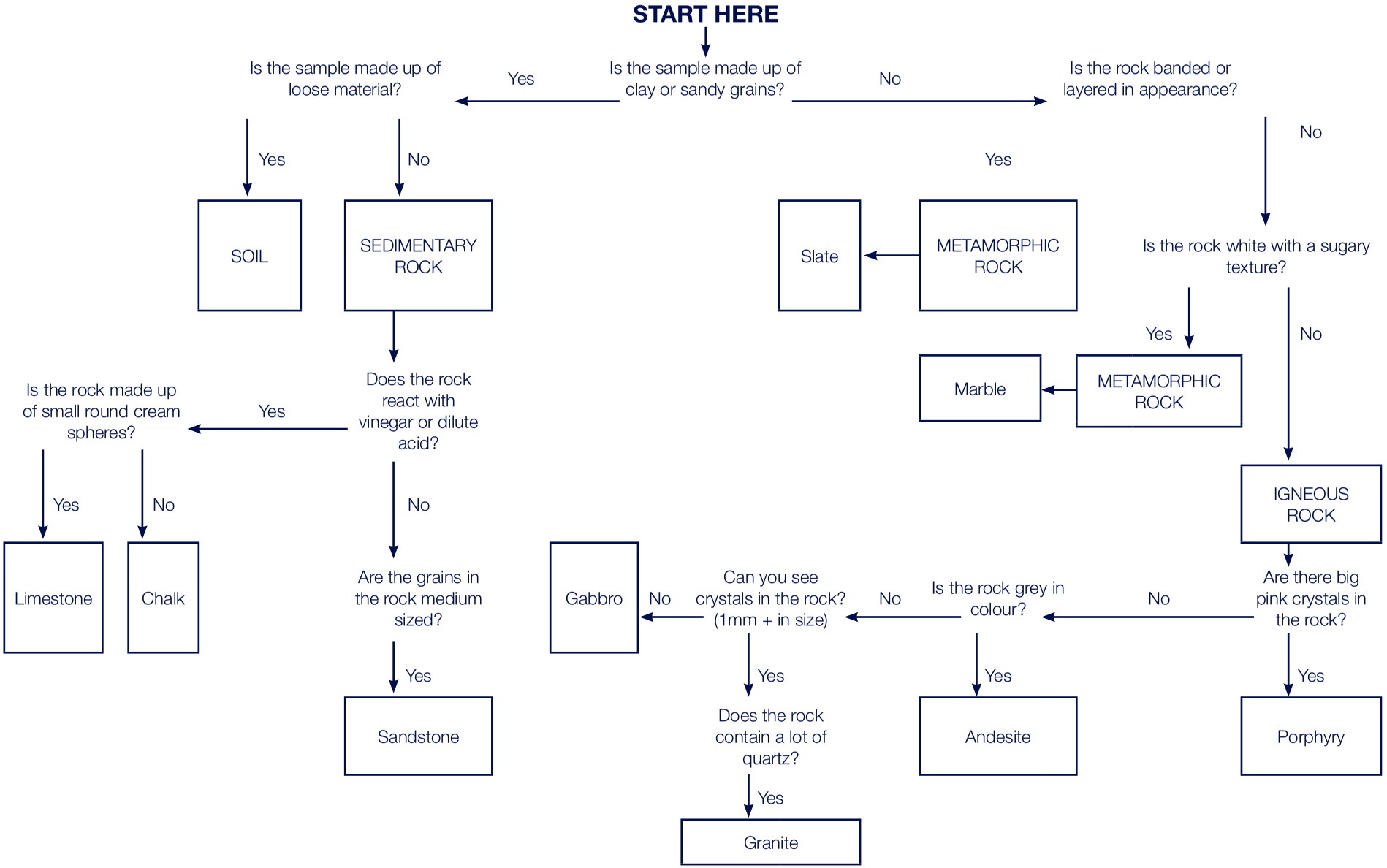
A. No. They shrivel up and die
B. Yes. They grow very fast, but are unhealthy
C. No. They stop growing at once

Question 8

What is the function of a plants stem?

A. To attract insects
B. To transport water
C. To turn sunlight into oxygen and food for the plant

Rock Key


START HERE
Is the sample made up of clay or sandy grains?
Yes
No
Is the sample made up of loose material?
Yes
No
SOIL
SEDIMENTARY ROCK
Is the rock made up of small round cream spheres?
Yes
No
Limestone
Chalk
Does the rock react with vinegar or dilute acid?
No
Are the grains in the rock medium sized?
Yes
Sandstone
Is the rock banded or layered in appearance?
Yes
Slate
METAMORPHIC ROCK
No
Is the rock white with a sugary texture?
Yes
Marble
METAMORPHIC ROCK
No
IGNEOUS ROCK
Are there big pink crystals in the rock?
Yes
Porphyry
No
Is the rock grey in colour?
Yes
Andesite
No
Can you see crystals in the rock? (1mm + in size)
Yes
Does the rock contain a lot of quartz?
Yes
Granite
No
Gabbro

Rocking Around...

Have fun identifying the different rocks.

Record their characteristics, and identify the type of rock and its group.





Sample No.	Type of Rock	Rock Group (igneous, metamorphic or sedimentary)	Characteristics
1			
2			
3			
4			
5			
6			

Master Copy: **Soil Guide**

Clay

Sticky, smooth and slimy.

Sand

Sandy, gritty and grainy to touch.

Chalky

Various sizes of white stones mixed in with the soil.

Loam

Soft and smooth with occasional hard angular grains mixed in. The perfect soil.

Silt

Soft and smooth but not sticky like clay.

Peat

Dark in colour with lots of plant and root materials.

Master Copy: **Rocks and Soil Quiz**

Question 1

Which of the following rocks is permeable?

A. Slate
B. Marble
C. Chalk

Question 2

Which rock splits easily into thin sheets?

A. Marble
B. Slate
C. Granite

Question 3

Which of the following is a type of rock?

A. Chalk
B. Silt
C. Clay

Question 4

Which rock is the solidified lava froth from a volcano?

A. Limestone
B. Sandstone
C. Pumice

Question 5

Marble is often used for statues or grand buildings because…

A. It has attractive textures and colours
B. It splits easily into thin sheets
C. It wears away easily

Question 6

Which of the following is not a component of soil?

A. Leaves
B. Animals
C. Glass

Question 7

Granite is often used for steps because…

A. It floats
B. It is permeable
C. It doesn't wear away easily

Question 8

Which is the only rock that floats?

A. Pumice
B. Slate
C. Granite

Master Copy: **Lights and Shadows Quiz**

Question 1

Why do shadows change during the day?

A. Because the sun appears to move in the sky and makes longer shadows in the early morning and at night
B. Because the sun is moving all of the time, changing the shadows
C. Because the shadows get tired and need a lie down

Question 2

Why does a translucent material cast a feint shadow?

A. Because it stops some of the light
B. Because it lets the light go round its edges
C. Because it isn't tough enough to cast a strong shadow

Question 3

Why is a shadow the same shape as the object?

A. Because its the object that stops the light, so the shadow is the same shape
B. It isn't always the same shape
C. It's a coincidence

Question 4

Why do some objects have a dark shadow with a light shadow round it?

A. This happens when the light source is bigger than the object
B. The light bends round the object and lightens the shadow at the edges
C. This happens when the light source is smaller than the object

Question 5

How are shadows formed?

A. Some objects give out a dark light
B. Shadows pop out of things when the light shines on them
C. Opaque objects stop the light going through them

Question 6

What is the biggest light source?

A. The sun
B. The moon
C. The Northern Star

Question 7

What colour shadow will a yellow duck have?

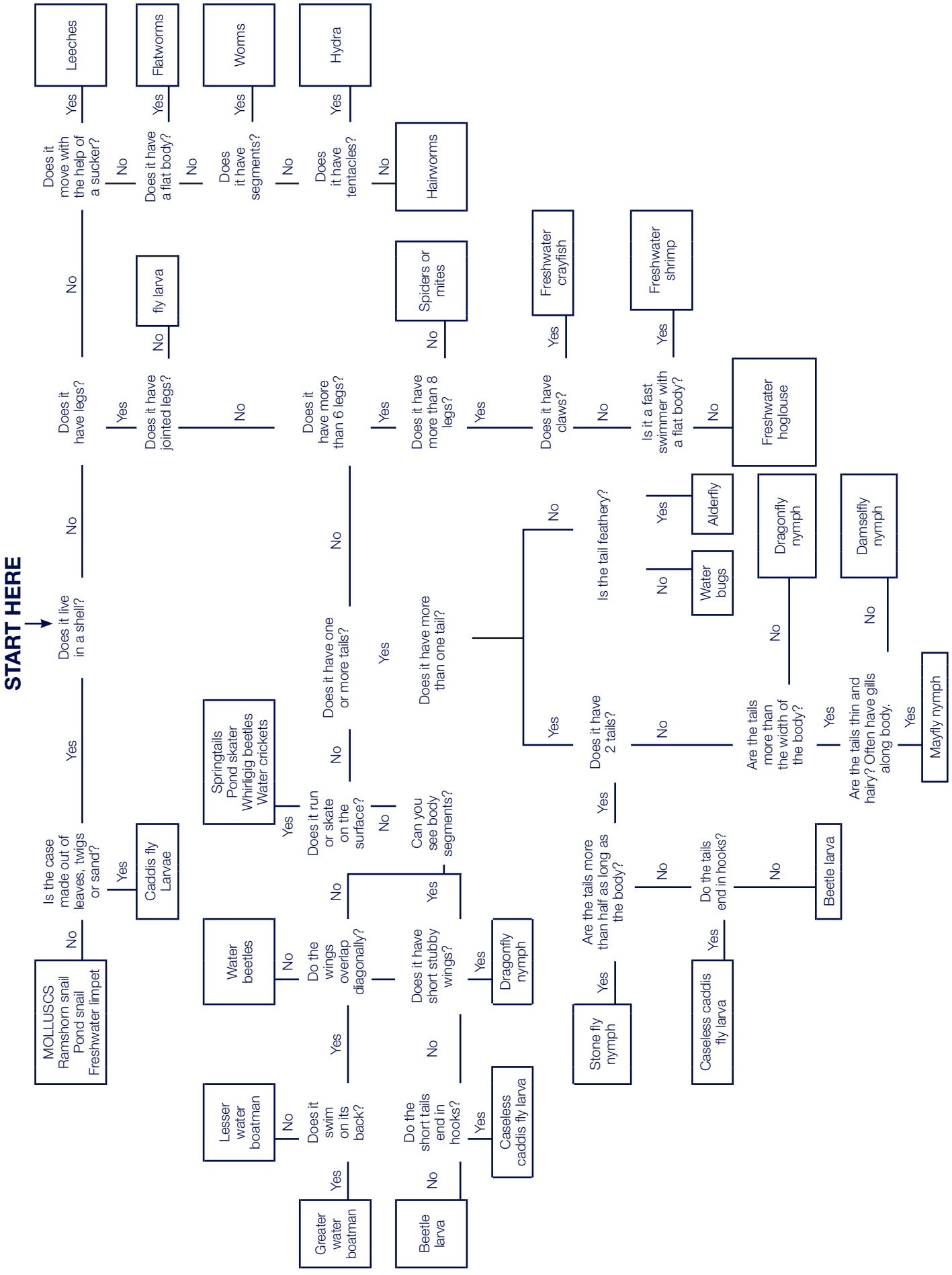
A. No shadow at all
B. Black, as long as the duck is opaque
C. Yellow

Question 8

What shape are shadows?

A. The same shape as the light source
B. The same shape as the object that is blocking the light source
C. The shape of the light source and the object blocking it combined

Freshwater Minibeast Key



Minibeast Passport

What do you need?

Food: Plants/Vegetation ☐

Animals/Meat ☐

Air: ☐

Water: ☐

Shelter: ☐

How do you plan to travel? _____

Personal Information

Name: _____

Address: _____

_____York, England_____

Age: _____

Job: _____

Your leaders
request and require
in the name of the mighty
minibeast all those who it may
concern to allow the bearer to
pass freely without hindrance, and
to provide such assistance and
protection as may
be necessary.

Stamp

I have completed my passport,
and am ready to go on my travels.

Picture of Passport Holder

Profile

How many legs do you have?_____

Can you fly?_____

What colour are you?_____

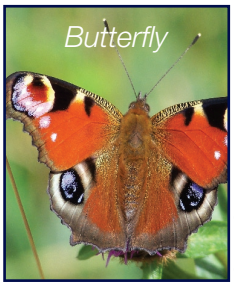
How many eyes do you have?_____

Can you swim?_____

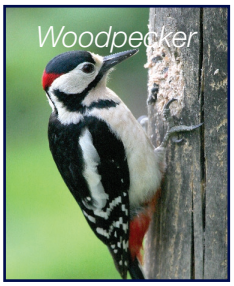
Do you have feelers?_____

Master Copy: **Picture the Scene**

JO MEAYS

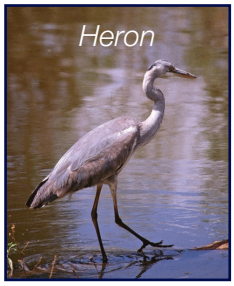


JO MEAYS



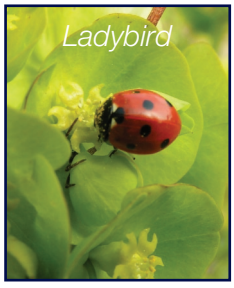
JO MEAYS

JO MEAYS

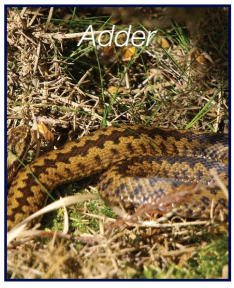


PHILIP PRECEY

JO MEAYS



RICHARD BURKMAR



P. JENKINS

RICHARD BURKMAR

Fruits and Seed Guide

Rose hip

Sycamore wing

PHILIP PRECEY

Dandelion clock

PETER WOLSTENHOLME

Acorn

PHILIP PRECEY

Blackberry

Beech mast

Hawthorn berry

PETER WOLSTENHOLME

Thistle

Horse Chestnut seed (Conker)

Holly

PHILIP PRECEY

Pine cone

Elder berry

PETER WOLSTENHOLME

Hazel nut

PETER WOLSTENHOLME

Master Copy: **Plant Life Cycles**

JOE CASHIN

Seed

Seeds are compact and are usually dark brown.

Germination

With water, the correct temperature, nutrients and air the seed begins to grow and make a new plant.

JO MEAYS

Stems and Roots

Stems grow up towards the light and leaves unfold to absorb more sunlight. Roots push down to anchor the new plants and take up nutrients and water from the soil.

RICHARD BURKMAR

Flowers

Many plants produce flowers.

Pollination

Flowers are pollinated in various ways-by bees, other animals and the wind. At the base of each flower, seeds are formed.

PETER WOLSTENHOLME

Dispersal

Dispersal Plants disperse their seeds to prevent overcrowding and competition for sunlight.

Master Copy: **Animal Adaptations**

Master Copy: **Food Chains**

JO MEAYS

PHILIP PRECEY

JO MEAYS

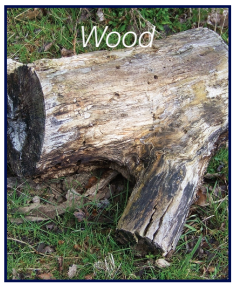
JO MEAYS

PHILIP PRECEY

RICHARD BURKMAR

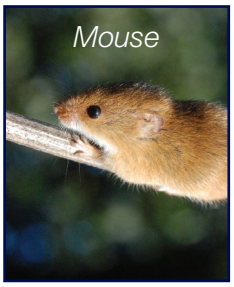
ELLIOT SMITH

JO MEAYS



JO MEAYS

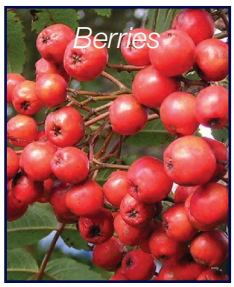
JO MEAYS



NATALIE ROGERS

ELLIOT SMITH

JO MEAYS



RICHARD BURKMAR

NATALIE ROGERS

NEIL ALDRIDGE

ELLIOT SMITH

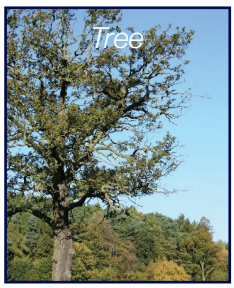
JO MEAYS

PHILIP PRECEY

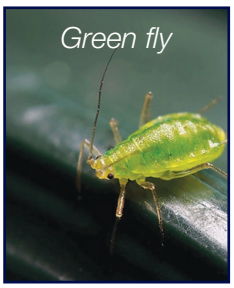
NEIL ALDRIDGE

JO MEAYS

JO MEAYS



PHILIP PRECEY



RICHARD BURKMAR

RICHARD BURKMAR

Measuring Forces

Have fun on your Scavenger Hunt,
looking for the objects listed below.

10 twigs
5 stones
Handful of leaves
A collection of seeds
1 rock
A big handful of soil
1 log
Something of your choice...

Record the weights of your items in the table below and then swap your items with another group.

Record their weights and see if you have the same answers.

Objects (1)	Weight (Newtons)	Objects (2)	Weight (Newtons)

appendix

Generic Risk Assessment

A generic risk assessment for the activities within this Education Pack

RISK ASSESSMENT DETAILS

DIRECTORATE	Yorkshire Wildlife Trust
TEAM	
RISK ASSESSMENT TITLE	Wild about York! Activities
RISK ASSESSMENT LOG REFERENCE	
DATE	19-02-2008
NAME OF ASSESSORS	Vicky Harland (YWT), Stephen Whittaker (CYC) & Sarah Emery (YWT)
MANAGER RESPONSIBLE	Julia Davis
LOCATION	All sites

DETAILS OF ACTIVITY
To cover all activities listed within the education pack.

Other assessments which might also be required, ☑ if needed

- Manual Handling ❑ REF
- COSHH ❑ REF
- Personal Protective Equipment (PPE) ❑ REF
- Noise ❑ REF
- Other ❑ REF

REVIEW DATES	
February 2009	

DEGREE OF RISK

	LIKELIHOOD (L)
5	Inevitable
4	Highly Likely
3	Possible
2	Unlikely
1	Remote Possibility

	SEVERITY (S)
5	Very High - Multiple Deaths
4	High – Death, serious injury, permanent disability
3	Moderate – RIDDOR over 3 days
2	Slight – First Aid treatment
1	Nil – very minor

RISK RATING MATRIX

LIKELIHOOD \ SEVERITY	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

PERSONS AT RISK

PERSONS AT RISK
Employees
Pupils
Customers
Contractors
Members of the public
Work Experience students
Other Persons

RISK RATING SCORE	ACTION
1-4	Broadly Acceptable – No action required
5-9	Moderate – Reduce risks if reasonably practicable
10-15	High Risk – Priority Action to be undertaken
16- 25	**Unacceptable – Action must be taken IMMEDIATELY**

A generic risk assessment for the activities within this Education Pack

HAZARD AND RELATED ACTIVITIES e.g. trip, falling objects, fire, explosion, noise, chemicals, violence etc.	PERSONS AT RISK e.g. Employees, pupils, customers, contractors, members of the public	POSSIBLE OUTCOME	RISK RATING BEFORE CONTROLS (Likelihood x Severity)	EXISTING CONTROLS e.g. Personal Protective Equipment (PPE), Guards, Safe Systems of Work, Training, Instruction, Authorised Users, Competent Persons	RISK RATING AFTER CURRENT CONTROLS (Likelihood x Severity)	FURTHER CONTROLS REQUIRED?	RISK RATING AFTER FURTHER CONTROLS (Likelihood x Severity)
Run-around games: Bumping heads, falling over, slips etc.	All persons participating in the activity	Minor injuries, possible fractures	4 x 2 = 8	Choose a location with open space, level ground and away from public walkways. Remove any trip hazards from the area prior to playing any games. Rules and boundaries to be laid out verbally and group leader to ensure they are followed. Practise increased vigilance after rain and cold temperatures as the ground may be more slippery or hard after a frost. Practise vigilance for any rough play which may lead to bumped heads.	3 x 2 = 6 Moderate	No	
Handling heavy or awkward materials: Handling large heavy objects, sharp or rough materials etc.	All persons participating in the activity	Minor injuries, sprains, pulled muscles, splinters, cuts, grazes	4 x 2 = 8	Try to use alternative and safer materials where possible. Give advice on how to handle materials safely i.e. two people to carry large objects, and provide gloves. Demonstrate how to lift heavy objects correctly i.e. bend at the knees not the back. Practise vigilance whilst children are handling all materials.	3 x 2 = 6 Moderate	No	
Exploring an area and collecting materials: Finding and handling litter (potentially needles). Coming into contact with dog faeces, which may lead to Toxocariasis	All persons participating in the activity	May develop illnesses related to coming into contact with litter and dog faeces	3 x 3 = 9	Conduct a pre-activity check of the area. Clear up dog faeces (remove in a bag or bury) using suitable protective equipment and a spade or trowel. Tell children not to place their hands in areas that they cannot see, for example, under bushes etc, and tell them not to touch any sharp objects.	2 x 3 = 6 Moderate	No	
Craft activity using scissors:	All persons participating in the activity	Minor cuts	3 x 2 = 6	Provide children with safety scissors suitable for their age. Tell children to handle and use the scissors correctly.	2 x 2 = 4 Broadly acceptable	No	
Using hand tools: Misuse of trowels, forks, spades etc.	All persons participating in the activity	Cuts and bruises	3 x 3 = 9	Follow guidelines laid out in the YWT/Council policies and procedures. Ensure adequate number of supervisors for the number of children using the hand tools. Demonstrate how to use all hand tools correctly. Practise vigilance whilst children are using tools.	2 x 3 = 6 Moderate	No	
Minibeast Hunt: Bees and wasp stings. Mosquito bites. Coming into contact with soil	All persons participating in the activity	Stings, bites and illnesses relating to coming into contact with soil borne diseases	4 x 3 = 12	Practise a higher level of vigilance in spring and summer when there will be a higher number of insects. Wear suitable clothing i.e. long trousers and sleeves. Check if children with allergies have an epi-pen or similar treatment. Wash hands or use anti-bacterial hand gel after coming into contact with soil.	3 x 3 = 9 Moderate	No	
Pond dipping: Water	All persons participating in the activity	Falling in water leading to Infection, hyperthermia	3 x 3 = 9	Practise vigilance whilst children are near any water. Use pre-constructed dipping platforms when available. Demonstrate how to pond dip safely, Always carry a throw-line when working near to deep water. Increase caution after rainfall as the banks may become more slippery; water levels may rise and after freezing temperatures ice may form on the surface of the water. Wash hands or use anti-bacterial hand gel after coming into contact with soil.	2 x 3 = 6 Moderate	No	
Exercise:	All persons participating in the activity	Over exercising may lead to hyper-ventilation	2 x 1 = 2	Practise vigilance for signs of distress and encourage children to rest if they start to feel tired. Check if children with asthma have an inhaler or similar treatment.	1 x 1 = 1 Broadly acceptable	No	
Walking to a green site: Traffic, strangers and dogs	All persons participating in the activity	Road traffic accident, interference from adults and dog bites	3 x 4 = 12	Ensure adequate supervision on route. Tell the children to stay with the group at all times and talk to them about the Green Cross Code i. e. stop, look and listen. Always use zebra/pelican crossings when possible. Increase caution in poor weather as visibility may be reduced for both pedestrians and rivers.	2 x 4 = 8 Moderate	No	
Playing on play equipment:	All persons participating in the activity	Falling off equipment may lead to bumps, bruises, grazes etc.	4 x 2 = 8	Conduct a pre-activity safety check of the play equipment prior to letting children play. Practise vigilance whilst children are playing. Increase caution after wet weather as equipment may become more slippery after rain.	3 x 2 = 6 Moderate	No	
Tug of War: Rope	All persons participating in the activity	Rope burns, falls, bumps, bruises etc.	4 x 2 = 8	Conduct a pre-activity check of the area, checking for dog faeces and sharp objects. Choose a location with open space, level ground and away from public walkways. Increase vigilance after wet weather as the ground may be more slippery after rain.	3 x 2 = 6 Moderate	No	
Lost children:	All persons participating in the activity	Lost child, injury	3 x 4 = 12	Conduct a register prior to activity commencing. Clear instructions given as to expectations of behaviour and responsibilities and what to do if they do become separated from the group. Periodic check of numbers.	2 x 4 = 8 Moderate	No	
Weather: Too hot, too cold, wet weather etc.	All persons participating in the activity	Heat stroke, dehydration, sun burn, chill, hyperthermia	3 x 3 = 9	Check weather forecast prior to an activity, and plan appropriately. Provide water. Advise parent/guardians to provide children with hats, sun cream, waterproofs, drinks etc.	2 x 3 = 6 Moderate	No	
Emergencies: Severe injury, death etc.	All persons participating in the activity	Severely injured child or leader leading to a loss of leader in emergency situation i. e. may need to take a child to hospital.	2 x 4 = 8	Emergency contact details obtained for each child present during the activity. Have access to a telephone and be prepared to dial 999. Ensure adequate number of supervisors, and make other adults aware of location in case back-up is required.	1 x 4 = 4 Broadly acceptable	No	

Note: This risk assessment is a guideline only, illustrating the risks that may occur when carrying out the activities set out within the Wild about York! Education Pack. Any users of the pack should visit the green site prior to a session and undertake their own risk assessment.