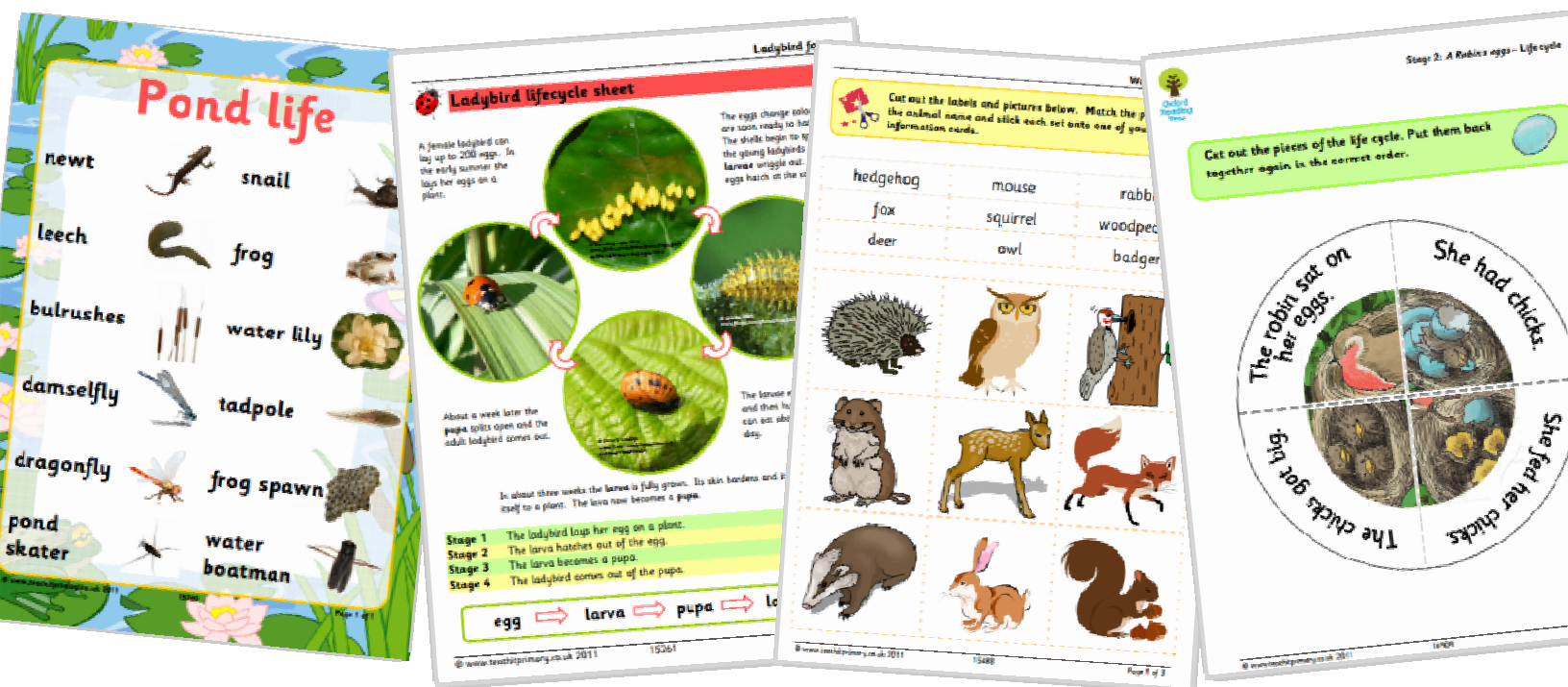


Outdoor learning project pack



If you go down to the woods today...

Literacy and Science based teaching ideas and resources



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Finding your way around the project pack

This project pack is a cross-curricular collection of creative teaching ideas and resources around the theme of *Outdoor learning*. Our aim is to bring together different resources from Teachit Primary into a cohesive whole, giving more support and structure than we can offer with stand-alone resources. The pack contains teaching activities linked to Forest Schools, Literacy, Science and other areas. Where appropriate, each subject has links to the new 2014 curriculum.

The pack lends itself to being used in different ways. It could form the basis of a whole week's project, or you could dip in and out of it over the course of a term, or even the whole school year.

The project is broken down into individual subject areas. Each section of the pack includes a set of teaching ideas, followed by accompanying resources. Wherever a teaching idea has a supporting resource we've indicated this and explained how the resource is relevant: for example, as a means to acquire background knowledge for the activity, to facilitate the recording or presentation of the activity or as an extension task related to the activity.

The ideas and activities in this pack are open and therefore accessible to a wide age range. The resources are all available in adaptable formats, making it easy to differentiate the tasks by ability.

We've included links to each separate resource included in this pack so that you can access the resources directly on www.teachitprimary.co.uk. We've also included the file number for each original resource – just pop this into Teachit Primary's search engine. Most of the resources in this pack are Word documents, but we've also included links to PowerPoints and interactive activities. Please log in first in order to access any of these resources on Teachit Primary.

We hope you enjoy using this pack. If you have any questions, please get in touch: email support@teachitprimary.co.uk or call us on 01225 788851. Alternatively, you might like to give some feedback for other Teachit Primary members – you can do this by adding a comment on the [Outdoor learning project pack](#) resource page on Teachit Primary (please log in to access this!).

Outdoor learning project pack – ideas and resources

Our EYFS colleagues are more than happy to take their young learners outside whatever the weather, so what are we waiting for?



Outdoor learning isn't just about exploring nature: it has a broader impact on aspects of learning such as concentration and listening and communication skills, as well as bringing many areas of the traditional curriculum to life.

With a set of ideas from a Forest School expert plus a bank of Teachit Primary resources to support your endeavours both outside the classroom and on your return, this project pack encourages you to throw caution to the wind and come outside!

Kick things off with an event!

It's great to get going with a WOW event; something the children will remember. How about a teddy bear's picnic or a re-enactment of 'We're Going on a Bear Hunt'? Looking for something for older learners? You could invite your local forest school in to get the party started.



Web links

To save you time exploring the web we've picked out a couple of our favourite sites. The [Natural History Museum](#) website has a brilliant explore mission where children travel, virtually of course, to the island of Regaloam to collect specimens. Perfect for a little more exotic bug hunt!

Identification of different species can be tricky if you're not an expert so try using The Wildlife Trusts [Species explorer](#).

Forest School

Establishing a forest school

The outdoors is a great learning resource which can be used to complement and extend the indoor curriculum. It is a flexible and useful resource particularly suited to active learners. The outdoors provides excellent opportunities for collaborative group work, learning through questioning, potential for authentic practical work and the perfect context for engaging cross-curricular projects. We start projects with fun activities using the senses to first inspire and engage the children, planning in opportunities for skills, knowledge and a creative element and finishing with open ended opportunities for children to extend their own learning and set their own challenges.

Planning through the seasons

An essential resource when planning for outdoor learning is the seasons. It provides an ever-changing context for a broad range of exciting hands-on experiences that can help children discover the world around them in the early years and for key stage 2 it provides the perfect context for inspiring cross-curricular projects. Here are some ideas to help you deliver the curriculum outside and engage children in their learning whatever the weather.

Spring

- Discovering new life – watching and measuring bulbs, growing seeds, planting fruit and vegetables
- Baby animals and their homes, birds beginning to nest, life cycles of butterflies and frogs
- Nature walks to discuss and record buds, blossom, the weather, seasonal changes, weather stations, recording temperature and rainfall
- Visit to farm to see lambs, ducklings, chicks
- Listening to bird song, making bird nests, feeding the birds

Summer

- Minibeast hunt – make mystical bugs and create an island world with food, water, habitat
- Bees and honey making – pollination
- Habitats - what do plants and animals need to survive
- Pond dipping
- Food chains
- Web of life – how we are all connected – biodiversity
- Journeys, exploring and map making, identifying geographical features in the local landscape
- Tree Project – identify and find out about trees
- Summer colours and landscapes in art
- Composting, looking at soil composition, wormeries

Autumn

- Exploring the colours of leaves – Scavenger hunts – making pictures with the natural materials
- Tasting different fruits – apples, plums, cooking, harvest time
- What is happening on the farm? Set up a Farmers' Market role play area
- Why do some trees lose their leaves? What is happening to them?
- Collecting seeds and start a tree nursery
- Observational drawing of seeds and fruit
- Fire and cooking – how we keep ourselves safe
- Singing around the campfire
- Celebrate Apple Day, Harvest festival
- Making bug houses, designing and testing waterproof dens, preparing for winter

Winter

- Hibernation and animal stories
- A day in the life of a hedgehog
- Making maps and trails – creating stories
- Memory games – hiding nuts, where did we hide them?
- Making natural Christmas decorations
- Recording and describing the weather, temperature, rain gauge
- Feeding the birds

Breaking down the barriers between indoor and outdoor learning

- Spend curriculum planning time building learning in the school grounds into your scheme of work for all subjects
- Provide training and support to staff
- Use the seasons to guide your planning
- Plan a school grounds improvement project and involve the children in its design and creation
- Create a rich outdoor learning environment with plenty of opportunity for real learning experiences and contact with the natural world
- Provide different learning environments and resources e.g. habitats for wildlife – a wild area, pond, a food garden – a vegetable and fruit growing area, a small orchard (remember fruit trees can be grown against a wall and offer a host of learning opportunities – highly recommended), a muddy digging area, a minibeast sanctuary, a den building/construction area, a sensory garden
- Ensure children and staff have appropriate clothing for the weather
- Have clear agreed expectations for behaviour when outside
- Use curriculum opportunities to involve children in projects to improve and protect the biodiversity within the school grounds
- If space is limited at school consider using a local park within walking distance

Literacy

Get inspired by the great outdoors

Where a story is set often dictates its events, so when children read 'We're Going on a Bear Hunt' they are able to predict the hazards that lay ahead. Take story mapping to another dimension by asking children to re-enact the family's journey! Alternatively, create a bear hunt set in a different environment, or explore other traditional tales set in woods and/or containing a big bad wolf.

Teaching ideas

- Go on a scavenger hunt around your school grounds collecting items for a seasons trail. Write descriptions of these objects as a starting point for some seasonal poetry. [Resource 10185: On the ground](#) will get this off to a flying start!
- Who can resist 'Owl Babies' by Martin Waddell? Whether you choose to act out the story using masks or just explore the words used to describe the story setting, it's a must and [Resource 8398: Owl Babies](#) might have been made for you!
- Just as in 'Owl Babies', sometimes the woods can be perceived as a frightening or dangerous place. Help children overcome possible fears or worries by talking about the positive aspects of this environment. Our familiar friend Floppy can help here and [Resource 15122: Frightened Floppy](#) is all ready for you to use.
- Taking a senses walk around any environment brings a new depth to descriptive writing- to actually be there rather than just to imagine it. [Resource 8189: Setting the scene](#) is a great starting point to help children describe what their senses pick up.
- Using stories with a very strong pattern makes them easy to adapt to create similar versions. So when the mouse takes a stroll in 'The Gruffalo', it's easy to adapt the story to your own similar setting, exploring who he may meet along the way. Who knows, maybe the Gruffalo will be replaced by the head

teacher! [Resource 10763: Gruffalo Choptalk](#) is a great activity to tie in with this.

- Take a walk around your school grounds to see what obstacles you might use to create your own version of 'We're going on a Bear Hunt'. [Resource 11454: We're going on a ... hunt](#) is a great resource for younger learners but could equally be used with older age groups writing for a younger audience.
- Even just a small wooded area gives enough of an impression to allow children to imagine what it would be like for characters living there. Just imagine you were Little Red Riding Hood lost in the woods. Or perhaps you are the poor hungry wolf? These three resources: [11460: The hungry wolf](#), [8823: Little Red Riding Hood – my version](#) and [15484: Postcard from a character – Little Red Riding Hood](#) all offer alternative ways to look at the story.
- What weird and wonderful creatures are lurking under rocks and hiding in tiny cracks? After a good old fashioned bug hunt ask children to report their discoveries in the form of a news article.
- The poem Trees by Harry Behn is a wonderful way to look at different aspects of wood. [Resource 15489: Activity Pack – Trees by Harry Behn](#) makes this easy for you and fun for the children.

Resources contained within the Literacy section of this project pack

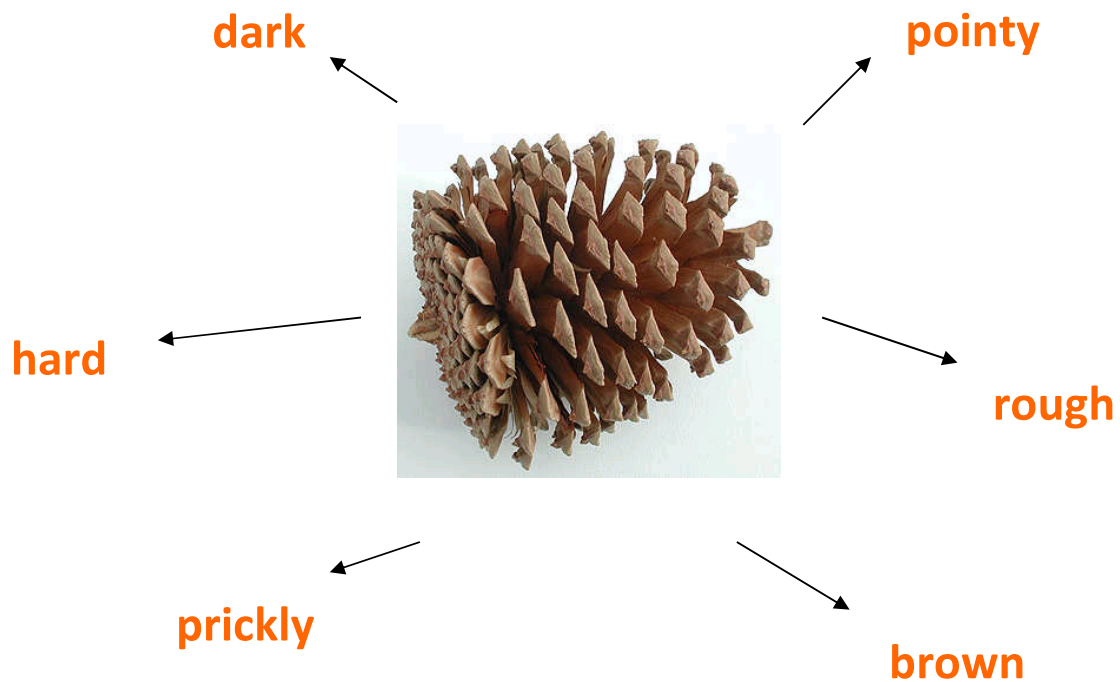
On the ground.....	7
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We're going on a ... hunt.....	16
The hungry wolf	19
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Activity pack – <i>Trees</i> by Harry Behn	26

Go for a walk outdoors and collect things found on the ground, e.g. leaves, stones, twigs, pine-cones etc.

Each group of pupils could look at what they have found.



For example:



Next use the words that the children have found to write their autumn poem!

Each verse has a simple structure, with repeated lines and places where pupils can choose their adjectives.

On the ground

Five **prickly** pine cones

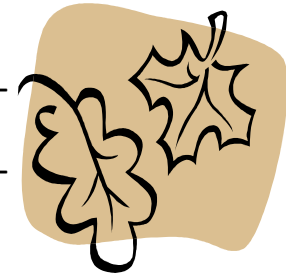
Hard and **pointy**

Autumn is here

On the ground

Four _____
_____ and _____

Autumn is here



On the ground

Three _____
_____ and _____

Autumn is here



On the ground

Two _____
_____ and _____

Autumn is here



On the ground

One _____
_____ and _____

Autumn is here



Name:

Date: LO:

Share the story of *Owl Babies* by Martin Waddell.

Read the questions below and write your answers in the boxes.



Opening

What happens at the beginning of the story?

Middle

What was the problem in the story?

What do they see?

Who do they meet?

Story writing

Use the words from the word bank to write your own version of the story.



dark	clammy
daunting	wet
scary	stale
damp	musty
creepy	mouldy
rustle	crackle
rough	crunch
coarse	jagged
tall	huge
fox	soft
wood	cold
trees	windy
shadows	grey
creatures	twinkling
insects	breeze
noises	shining
howling	blustery

Teaching notes



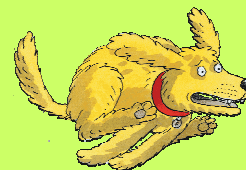
- Discuss the fact that the story takes place in different places. Ask the children to list the different settings: home, the wood and The Dragon Tree.
- Explain that they are going to explore how Floppy is feeling when he is in the woods. Look at the pictures on pages 8-9 and ask the children:
Why does Floppy look frightened?

What do you think he can hear, see, smell?

Discuss all the things that Floppy might be frightened of (the wood, the darkness, the owl, the goat, the fox, the cold, the noises in the wood etc.). Write the children's ideas on the board. They will need to refer back to these when they do their writing.

- Ask the children: If you were in the wood would you be frightened of anything? Are there some things you would not be frightened of? Note down their ideas.
- The children use their ideas to complete simple sentences on the pupil sheet. E.g. Floppy did not like the dark; Floppy did not like the owl etc. Remind the children to complete each sentence with a full stop.

Floppy did not like lots of things in the wood. Use your ideas to complete the sentences.



Floppy did not like the

Floppy did not like the

Floppy

Floppy

What would you not like in the wood?

I would not like

.....

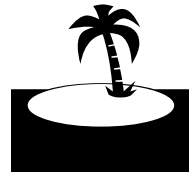
Name: Date:

Learning objective:

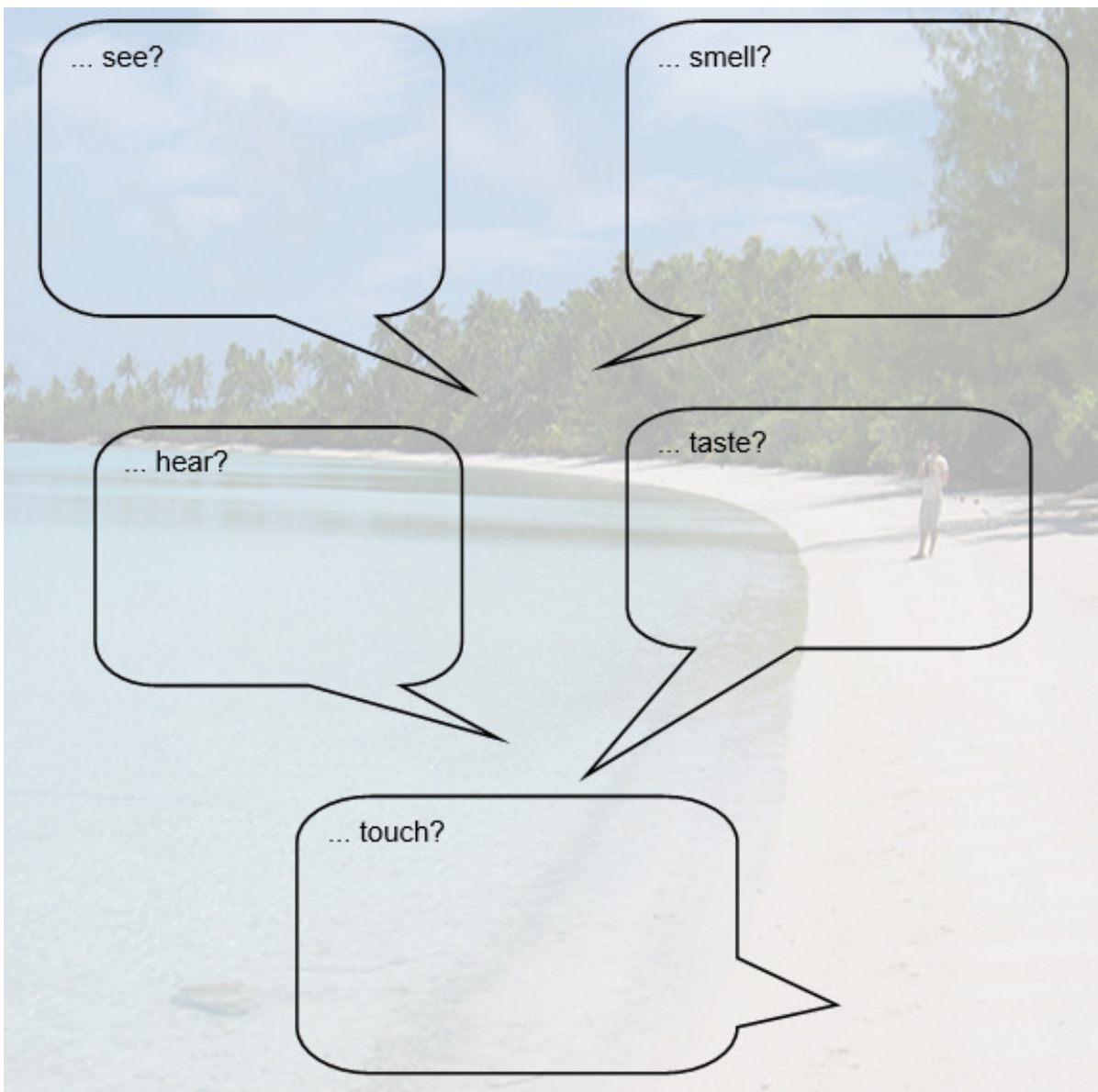
All stories need a setting – the location where the story takes place.

Use all of your **five senses** to help you create an effective scene.

Imagine that you are **on a beach**.



What can you...



Photograph by notacrime <http://www.flickr.com/photos/notacrime/62535160>

You can use **positional vocabulary** to help to create a sense of place.

Use your ideas about the beach to complete the following sentences:

The beach

Up above me

.....

Behind me

.....

Underneath me

.....

Next to

.....

A short distance in front of me

.....

The sound of

.....can be heard.

What other connecting phrases could you use?

Photograph by Mike Weston
<http://www.flickr.com/photos/mikeweston/326906653/>

Now think of a different setting and use all five positional sentences to create your description. Remember to include interesting adjectives to make your picture come to life.

Photograph by ishane
<http://www.flickr.com/photos/ishane/121089362/>

To access this resource please log in to the Teachit Primary website and type 10763 into the search bar.

Gruffalo - order the words to complete the text

deep dark

e mouse th

looked go

mouse and

od.

On went th

rough the

the mouse

wl saw the

wood. An o

We're going on a hunt!

Instructions

- Read *We're Going on a Bear Hunt* by Michael Rosen.
- Discuss the repetitive language used, prepositions and onomatopoeic words.
- Discuss the intended audience (e.g. age group) for this story.
- Explain to the children that their task is to write a story in the same style as *We're Going on a Bear Hunt*.
- Brainstorm what their story might be about, e.g. a ghost hunt, an alien hunt, a crocodile hunt.
- Discuss the style of writing they need to use.
- Use the writing frame on the following pages.

We're going on a hunt!

We're going on a _____ hunt.

We're going to catch a big one.

What a _____ day!

We're not scared!

Uh-oh!

A _____

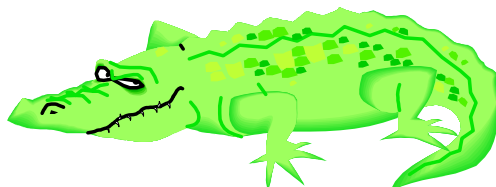
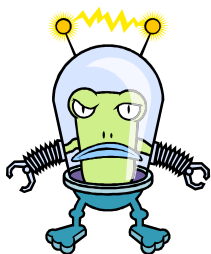
A _____

We can't go over it

We can't go under it

Oh no!

We've got to go _____ it!



Onomatopoeic words here!

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

We're not going on a _____ hunt
again!

By _____

Continue on paper.

Name: Date:

Learning objective: To write a story from an alternative point of view.

Read the story of Little Red Riding Hood. Now retell it from the point of view of the wolf. Write your new story and share it with a friend. Use the story plan below to help you.



How might the wolf feel when ...

... <i>he starts to get hungry and wants to find some food?</i>	
... he sees Little Red Riding Hood in the forest?	
... he sees Grandma's cottage?	
... he finds Grandma in the cottage and wants to eat her?	
... he eats Grandma and Little Red Riding Hood comes to the door?	
... Little Red Riding Hood starts asking difficult questions?	
... he still feels hungry and wants to eat Little Red Riding Hood?	
... the wolf sees the woodcutter coming through the door?	

Does he feel any guilt about eating Grandma?

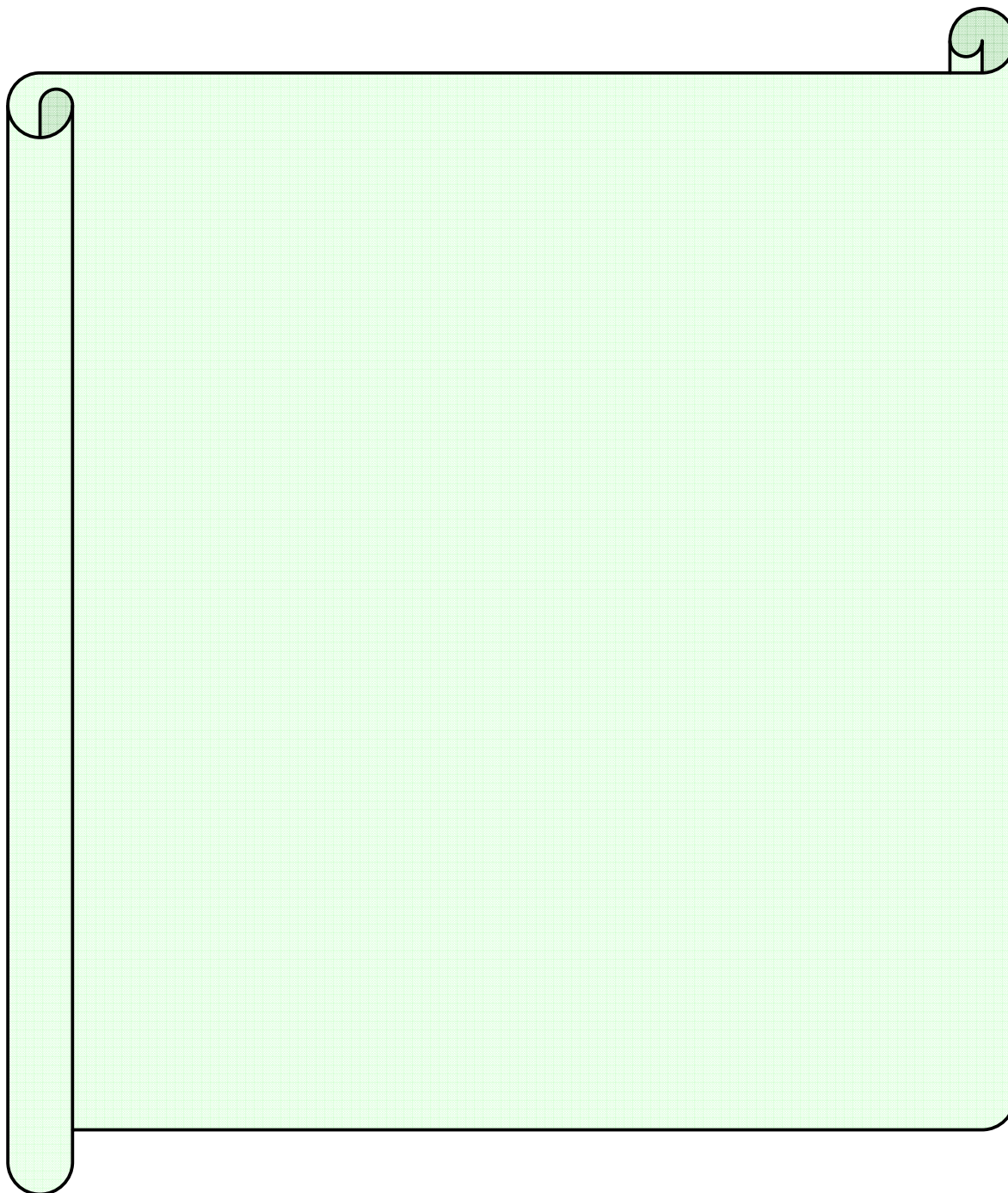
Write down some more ideas for your story.

Name: Date:

Read the original story of Little Red Riding Hood and the innovations listed below.

Your task is to invent a new story based around Little Red Riding Hood.

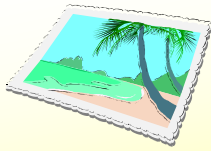
- ★ Fill in the blank boxes to create a new story.
- ★ Share with a friend to check that it makes sense.
- ★ Use this plan to write your new version of the story out in full.



The original story	Innovation	My version
Little Red Riding Hood is asked to take a basket of food to Grandma's house.	Little Red Riding Hood is given a task to do.	Little Red Riding Hood takes her _____ to Grandma's house.
Little Red Riding Hood sets off through the woods.	Little Red Riding Hood chooses her route.	
Little Red Riding Hood stops in the woods to pick flowers.	Little Red Riding Hood is distracted by something.	
The Wolf appears.	Something/one appears.	
The Wolf runs ahead to Grandma's.	It/they get to where Little Red Riding Hood is going before her.	
Little Red Riding Hood arrives at Grandma's and the Wolf is in bed dressed as Grandma.	Little Red Riding Hood arrives at her destination and something is not right.	
The Wolf attacks Little Red Riding Hood.	Something happens.	
Little Red Riding Hood and Grandma are rescued by the Woodcutter. The Wolf is dead.	The story ends happily.	

Postcard planner (example)

This planning sheet belongs to: _____



Send a postcard from one of the *Red Riding Hood* characters.

Use this sheet to plan what you will write when you send a postcard from your chosen character.

What is the name of your character? *The Wolf from Red Riding Hood*

Now write a few words in each box:

What can you see around you?	What can you hear?
<i>tall green trees</i> <i>lots of horrible flowers</i> <i>swaying trees</i> <i>sharp stones</i>	<i>the wind howling just like I do!</i> <i>someone singing and skipping</i> <i>my tummy rumbling</i> <i>snarling</i> <i>birds singing</i>
What can you smell?	What can you feel?
<i>ginger buns</i> <i>a tasty little girl</i> <i>blood</i>	<i>hunger</i> <i>chilly wind on my fur</i> <i>sharp stones on my paws</i> <i>twigs scratching my nose</i>
How do you feel?	Is there anything else you want to write?
<i>hungry</i> <i>angry</i> <i>impatient</i>	<i>I am so looking forward to my next meal!</i>

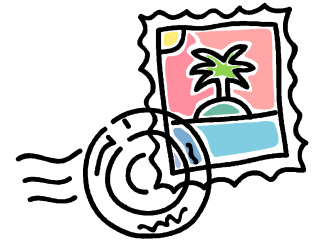
Who could you send your postcard to?

Granny

Dear Granny,

It's fun here in the woods. I am surrounded by tall trees, lots of horrible flowers and some lovely nettles. I am hiding behind a big green bush, waiting for your delicious granddaughter, Little Red Riding Hood. I can smell the ginger buns she is bringing you. It's making my tummy rumble! I can't decide what to eat first – her or the buns! I'll be calling to see you soon, then I can eat you AND Little Red Riding Hood and have the buns for pudding!
Hahahahaha!

Love from The Wolf.



July 10th 2011

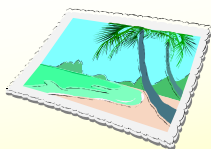
The Wolf House

Howling Road

Pawtown

Postcard planner (example)

This planning sheet belongs to: _____



Send a postcard from one of the *Red Riding Hood* characters.

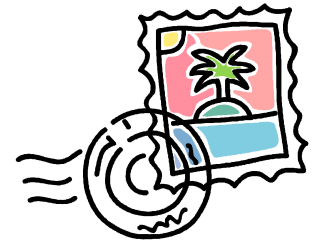
Use this sheet to plan what you will write when you send a postcard from your character.

What is the name of your character? _____

Now write a few words in each box:

What can you see around you?	What can you hear?
What can you smell?	What can you feel?
How do you feel?	Is there anything else you want to write?

Who could you send your postcard to? (Think of other characters in the story.)



Dear

.....

.....

.....

.....

.....

From

Name: Date:

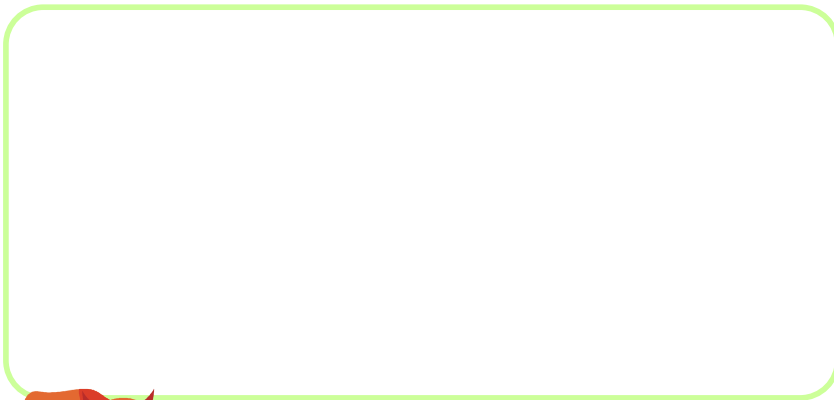


Read the poem *Trees* by Harry Behn. Identify the ways that trees are used throughout the poem.

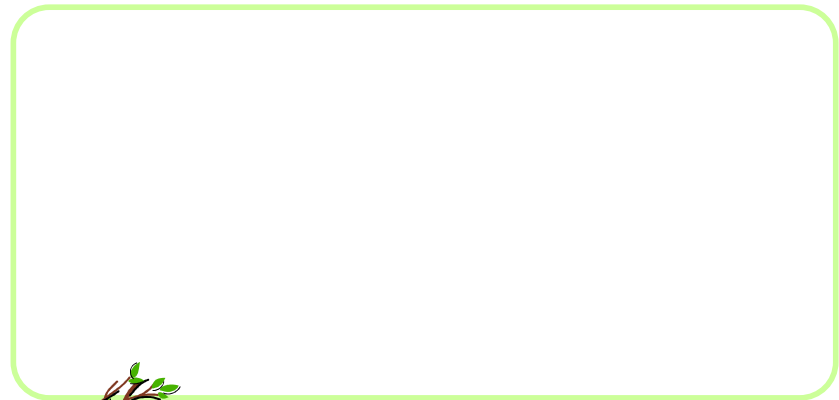


Can you think of any other uses for trees? Think about how they help humans, animals and the environment.

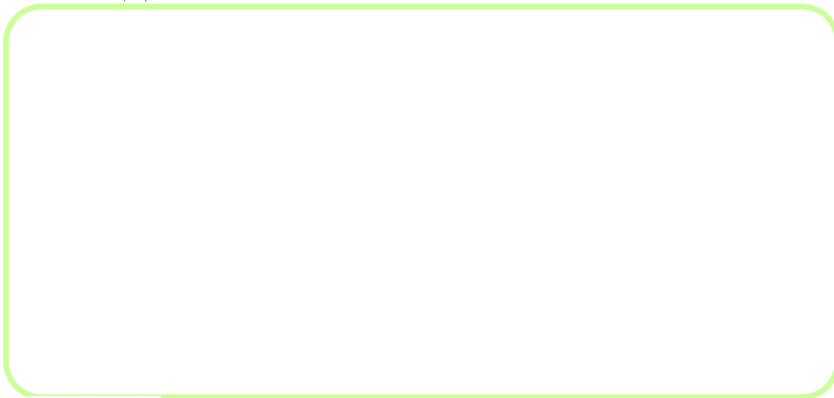
The poem creates some beautiful images by using figurative language - it paints images in our minds! Taking the following lines from the poem draw and colour the images it has created in your mind's eye.



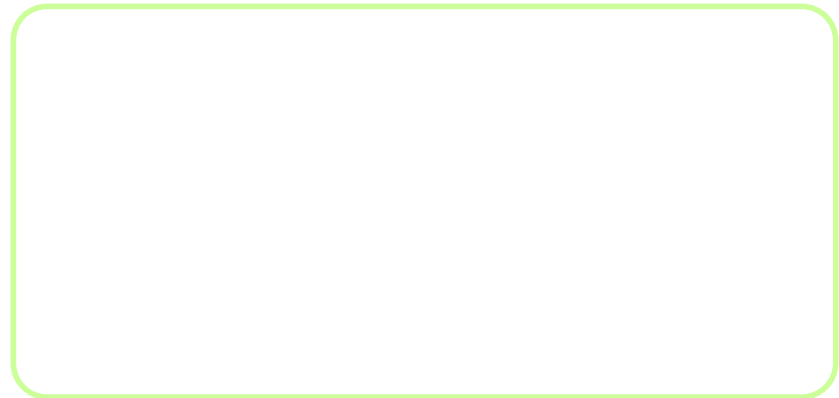
And spread a shade for sleepy cows



They give us fruit in leaves above



They are the first when day's begun
To touch the beams of morning sun



Now choose your own line from the poem to illustrate.

Name: Date:




Here are some tree words! Cut them out and sort them using the following headings:

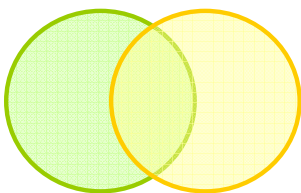
Lives in a tree

Grows on a tree

Type of tree




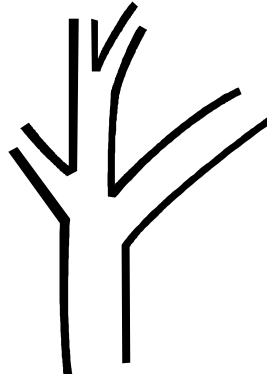
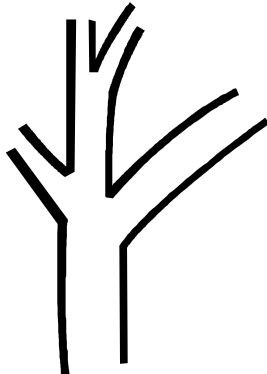
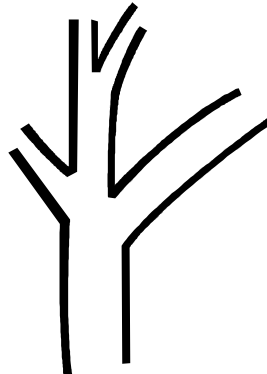
oak	twig	blossom	elm	butterfly
cedar	nest	trunk	shade	stem
forest	woods	leaf	bird	seeds
poplar	boughs	berries	spider	fruit
bark	owl	branch	hollow	roots
squirrel	insect	bud	birch	sycamore

**Challenge:**

Did you manage to use all of the words? Try creating your own table with different headings – how many words you are left with this time? How about drawing a Venn diagram and try sorting the words again!

Name: Date:

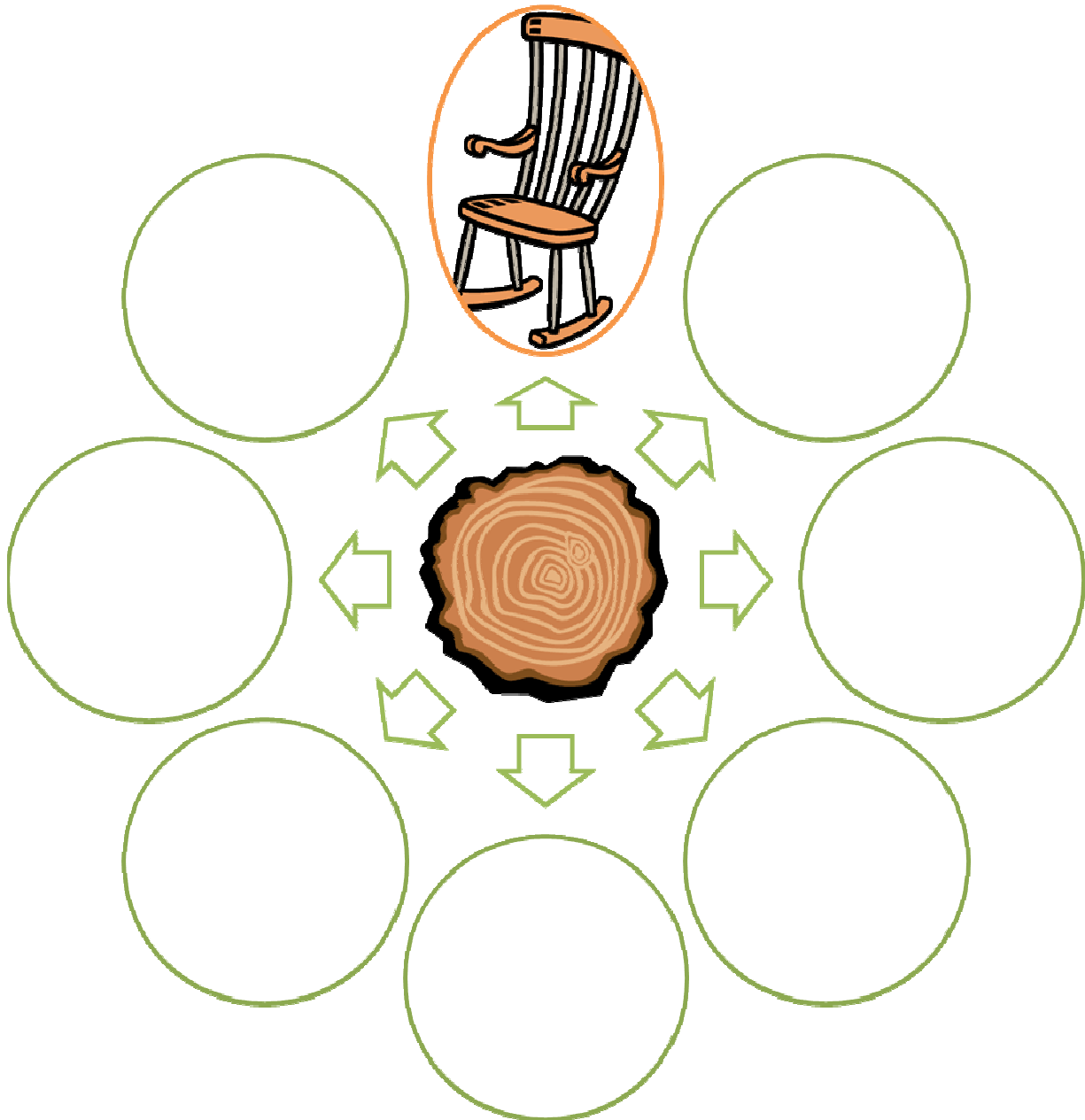
As the seasons change so does the appearance of some trees. Draw a series of trees to illustrate the four seasons.

Summer	Autumn
	
Winter	Spring
	

Which type of tree does **not** change with the seasons? Can you name an example of one?

Name: Date:

The wood we get from trees is very useful. Think about all the things that are made from wood: in the classroom, outside and at home.



Think about it! What problems would we create if we cut down all the trees to use the wood for our own needs?

Science

Creepy crawlies alert!

Science is all about understanding the world in action so what better place to get to grips with the wonders of the world than in the great outdoors? Rather than just reading about it children discover it for themselves through observations and investigations. Not just limited to exploring life processes, the playground is the perfect place for messy experiments – after all, who wants to create a volcano in their classroom?!



2014 curriculum links:

Science aims met within this project pack

- Develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology.
- Develop understanding of the **nature, processes and methods of science** through different types of science enquiries that help them to answer scientific questions about the world around them.

Science KS1 subject content covered within this project pack

- Observing closely, using simple equipment.
- Identifying and classifying.
- Gathering and recording data to help in answering questions.
- Identify and name a variety of common wild and garden plants, including deciduous trees.

- Identify and name a variety of common animals.
- Observe changes across the four seasons.
- Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.
- Identify and name a variety of plants and animals in their habitats, including micro-habitats.
- Observe and describe how seeds and bulbs grow into mature plants.
- Notice that animals, including humans, have offspring which grow into adults.

Science KS2 subject content covered within this project pack

- Setting up simple practical enquiries, comparative and fair tests.
- Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units.
- Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.
- Identifying differences, similarities or changes related to simple scientific ideas and processes.
- Using straightforward scientific evidence to answer questions or to support their findings.
- Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.
- Recognise that living things can be grouped in a variety of ways.
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.
- Construct and interpret a variety of food chains, identifying producers, predators and prey.
- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences.
- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Teaching ideas

- Observing life cycles in action is the best way of understanding these processes in different animals. Create a simple pond by sinking an old washing up bowl into the ground and then explore the life cycle of frogs at close quarters. [Resource 15261: Ladybird facts](#) would be a great starting point. [Resource 14909: A Robin's Eggs - Life Cycle](#) could be used as an extension activity to support this.
- We all love a good bug hunt, whether it's part of a national scheme to identify the prevalence of native species or simply a school based activity. It's great to find out a little more detail about each insect found and to produce fact sheets or even Bug Top Trumps! [Resource 15731: Minibeast key](#) is a simple way to show the principles of key classification. [Resource 15732: Differences in minibeasts](#) provides a handy template to record observations.
- Where and how animals live is linked to the special adaptations they have to suit their environment. Looking closely at how even the humble ant is so well suited to its environment can be a source of amazement. Taking this a step further, children could design their own 'super' animal especially suited to your local environment. [Resource 15531: Design your own animal](#) is a PowerPoint activity that will help children look at adaptation. [Resource 15224: Habitats and adaptation](#) will develop children's understanding of the huge variety of habitats in which animals survive.
- British wildlife is so varied but how much do children know about these creatures that are living on their door step? A research activity can work both as perfect preparation for a forest school visit or as a follow up on return to the classroom. [Resource 15493: Squirrel research pack](#) and [Resource 15505: Fox research pack](#) are handy collations of child friendly information that might be used to get the research up and running. [Resource 8094: Spidery Persuasion](#) is a PowerPoint presentation supporting the study of spiders. [Resource 15488: Woodland animals](#) is a brilliant way to get started on the creating fact (or Top Trumps) cards and develop children's own collections.
- 'If you don't like the weather wait five minutes' someone once said... its ever changing nature makes it a good data collection subject and [Resource 20642: Keeping a weather record](#) is a useful record sheet. Dressing appropriately for

the weather is not always easy and [Resource 20641: How would you dress for the weather?](#) makes a good follow up activity.

- The beauty and variety of leaves that grow around us is an endless source for scientific as well as artistic observation. [Resource 15736: Trees and leaves, spotter's guide](#) provides a useful reference tool to help name the varieties you may find. Patterns can be made using leaves and leaf rubbings and you could dissect leaves and analyse the function of the parts.
- If you have access to apples or other fruit growing nearby, [Resource 18972: What's inside a fruit?](#) is a handy way to look at the structure. Then why not take the opportunity to do some nice messy fruit and vegetable printing?
- Growing things is so rewarding! Ask your class to consider the class vessels available for planting (go wild, old wellington boots work well!) and talk about what conditions work best. [Resource 17716: Practical plant growing - a salad in a jar](#) is a delightful resource to guide children through the process. [Resource 14081: Helping plants grow well](#) is a fantastic follow up to finding out about the conditions in which plants thrive.
- Decay is a vital part of the cycle of life. During your outdoor explorations, ask the children to spot signs of decay and observe how different materials weather. You could make a compost heap or wormery and take photographs or film at agreed intervals to form a record.

Resources contained within the Science section of this project pack

Ladybird facts.....	36
A robin's egg – life cycle	42
Minibeast key.....	43
Differences in minibeasts	45
Design your own animal.....	46
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Ladybird factsheet

Beetles belong to the insect family.

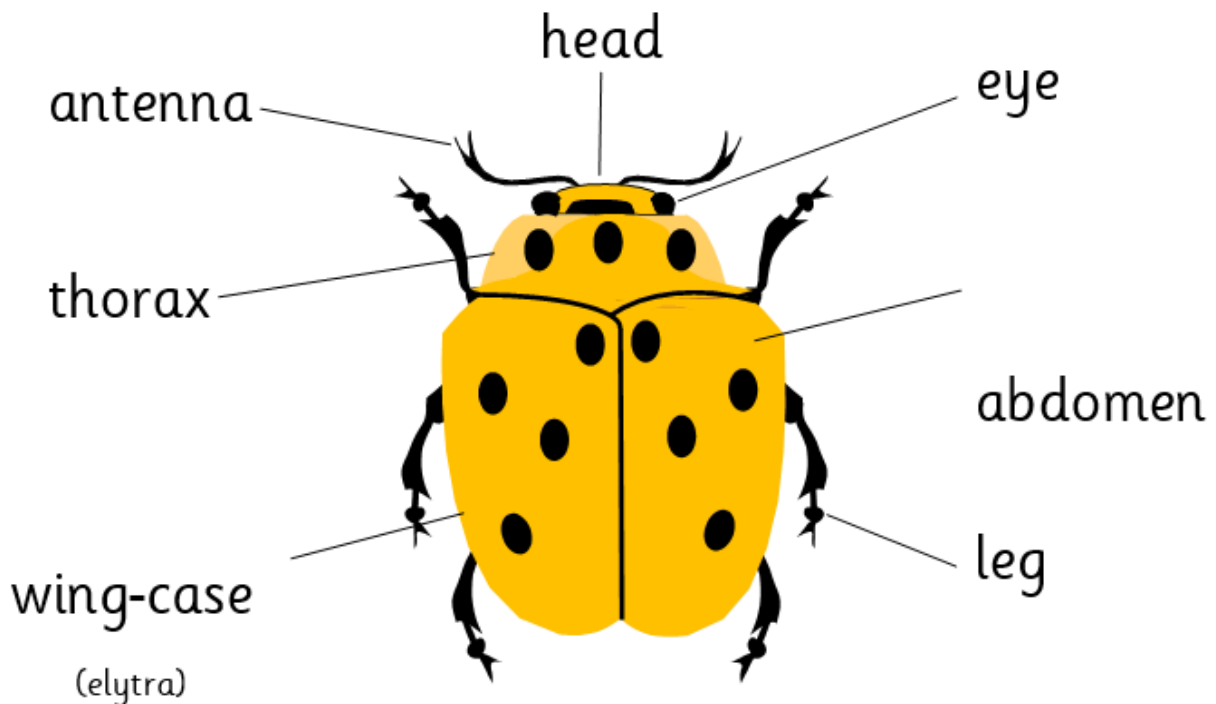
Ladybirds are small beetles.

Ladybirds can have up to 22 spots.

Ladybirds can be red or yellow or even brown.

Ladybirds can have different coloured spots.

Their spots fade with age.





Ladybird lifecycle sheet

A female ladybird can lay up to 200 eggs. In the early summer she lays her eggs on a plant.



The eggs change colour and are soon ready to hatch. The shells begin to split and the young ladybirds or **larvae** wriggle out. All the eggs hatch at the same time.



About a week later the **pupa** splits open and the adult ladybird comes out.

The larvae eat their own shells and then hunt for food. They can eat about 30 **aphids** each day.

In about three weeks the **larva** is fully grown. Its skin hardens and it glues itself to a plant. The larva now becomes a **pupa**.

Stage 1 The ladybird lays her egg on a plant.

Stage 2 The larva hatches out of the egg.

Stage 3 The larva becomes a pupa.

Stage 4 The ladybird comes out of the pupa.

egg → larva → pupa → ladybird



Amazing ladybird facts

- There are more than five thousand kinds of ladybird!
- The red colour of the ladybird and its spots are a warning to other animals that they are poisonous to eat.
- Ladybirds can 'play dead'! They roll onto their backs and squirt a yellow liquid onto their attacker!
- Americans call ladybirds 'ladybugs'.
- To stay warm in the winter, ladybirds pile on top of each other in a huddle.
- Ladybirds have a special chemical that stops them from freezing and dying in the cold.
- Gardeners like ladybirds because they get rid of pests.
- In the past some people believe that ladybirds could cure toothache!



Name: Date:.....



What have you learnt about ladybirds?

Use the fact sheets to help you answer the questions.

Can you name the four stages of the life cycle of a ladybird?	
What is the American name for a ladybird?	
How many different types of ladybirds are there thought to be?	
How do ladybirds protect themselves against predators?	
How many spots do ladybirds have?	
How do ladybirds stay warm in winter?	
What do some people believe that ladybirds can cure?	

Name: Date:.....



Use what you have learnt about ladybirds to help match the sentences to a picture. Cut out the sentences and pictures and then stick them into your book.



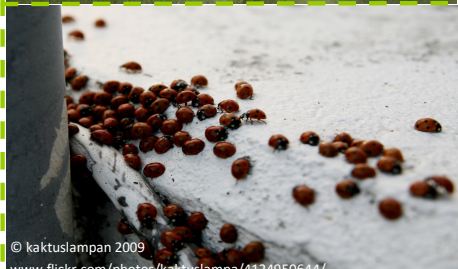
Ladybirds huddle together to keep warm.

A chemical in their bodies stops them from freezing in the cold.



Tiny larvae wriggle out of the eggs.

Their first meal is their shells!



After a week the eggs change colour and begin to hatch.



The ladybird lays her eggs on a plant.



Ladybirds can be different colours with different coloured spots.

Name: Date:.....



Draw and label your own ladybird. Can you include all the words from the word bank?

leg

abdomen

wing-case

eye

antenna

head

thorax

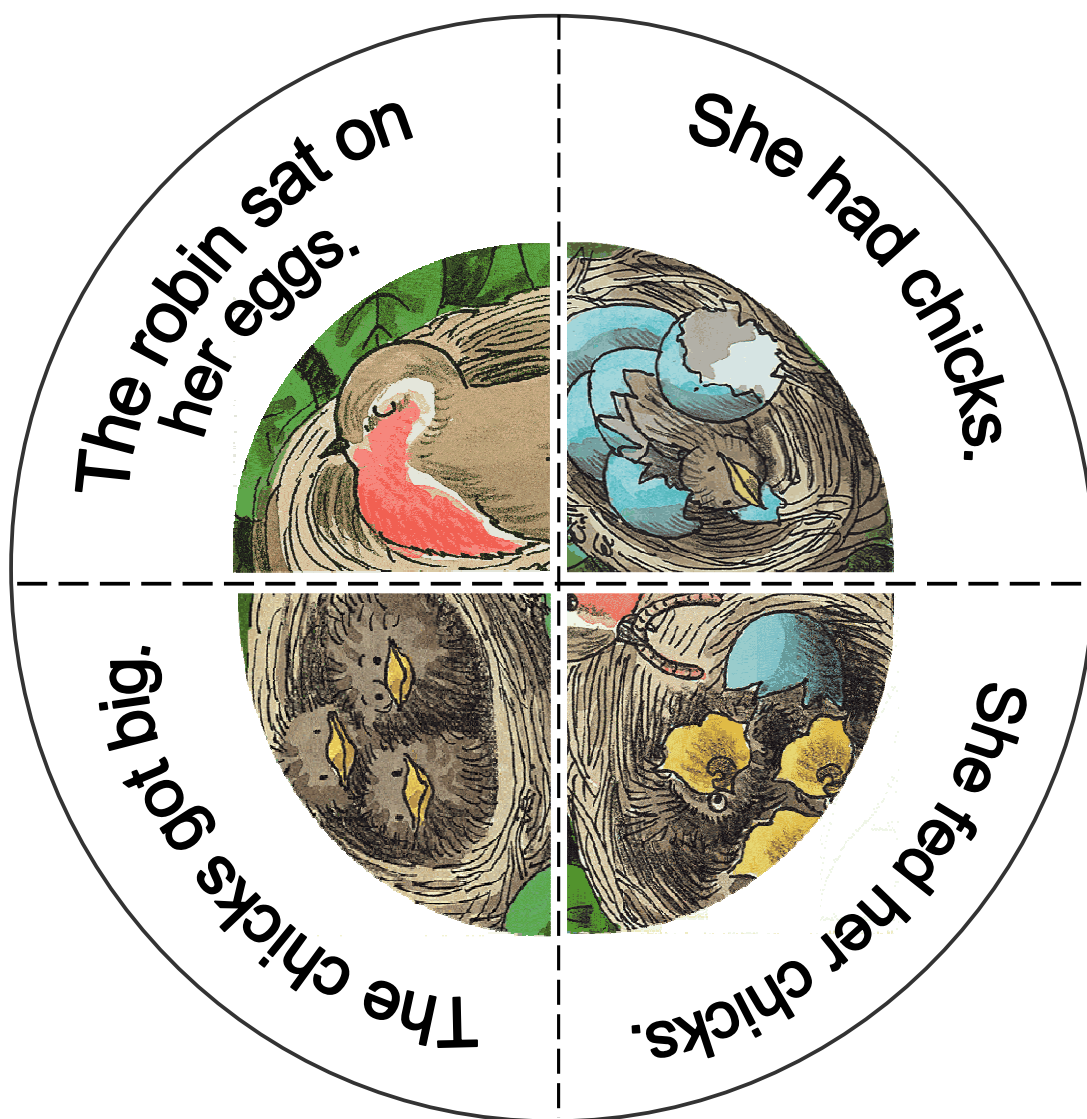
spots

wing

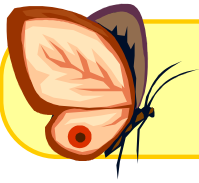


A Robin's eggs – life cycle

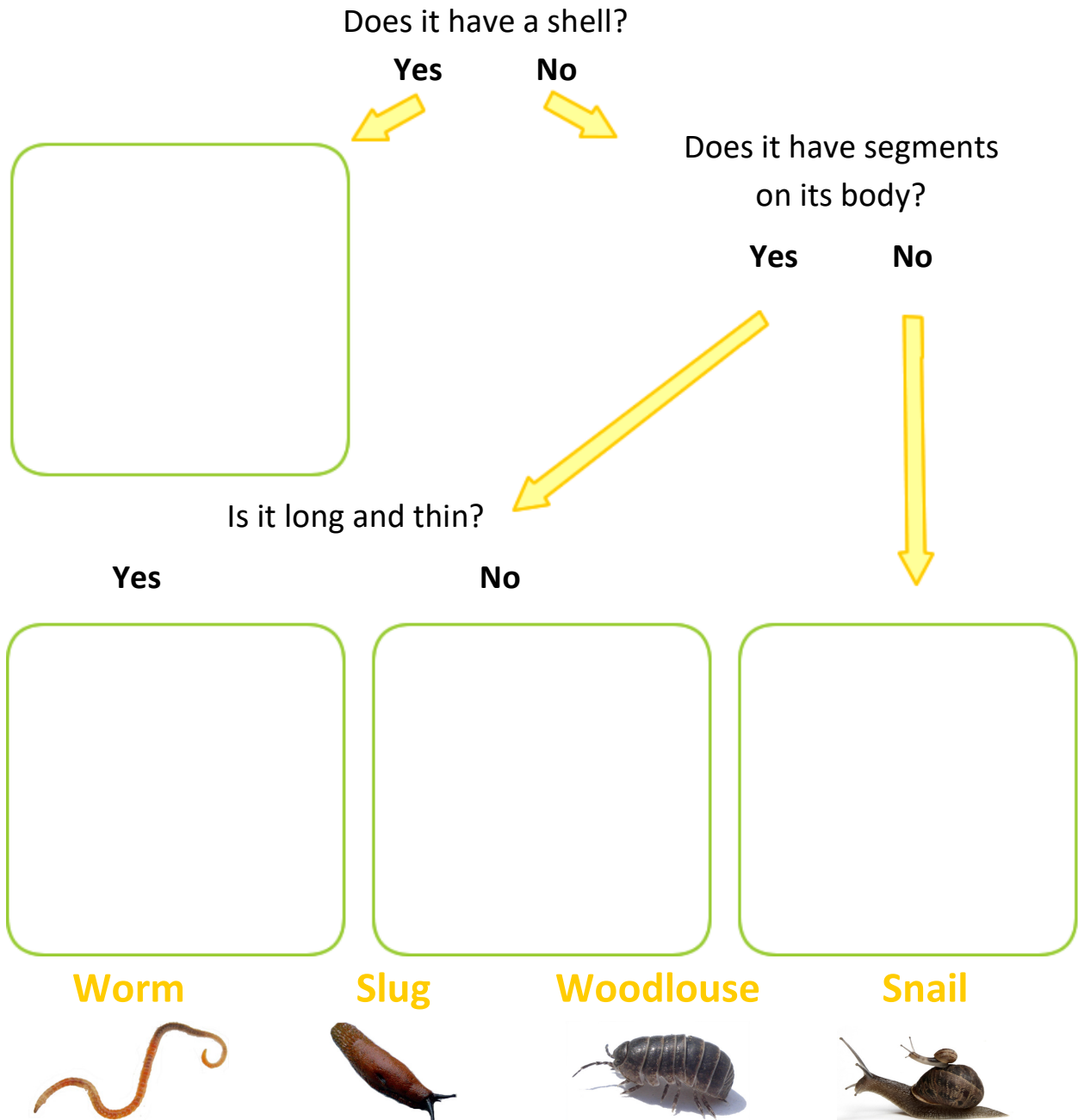
Cut out the pieces of the life cycle. Put them back together again in the correct order.



Name: Date:



Most minibeasts that you might find can be easily identified using a key. You simply answer the questions until your minibeast is identified. Complete the key below by drawing the four minibeasts in the correct place.



Can you sort the minibeasts using a different key?

Create your own key for the minibeasts that you have found on your bug hunt.

Photo credits

Worm

© alaskanent 2010 www.flickr.com/photos/alaskaent/5524813057/

Slug

© Pitel 2008 www.flickr.com/photos/pitel/2775136288/

Woodlouse

© Mick E. Talbot 2009 www.flickr.com/photos/25258702@N04/3491450227/



Not all minibeasts are the same; if you look closely you can see lots of differences between them. Spiders, snails and butterflies are minibeasts which are easy to find in the garden or school grounds.

On your bug hunt take photographs or make sketches of the animals you find. Now have a go at completing the table below by looking closely at each bug!



Minibeast	How many legs?	Does it have antennae?	How many parts to the body?	What else does it have?

Design the perfect animal!

Not as easy as it sounds.

Think about all the amazing animals that already exist - how could we improve on them?

What makes the perfect animal? After all, they are all so different!

Let's begin by thinking of all the animals that we already know.

List all the animals you know from A to Z ... on your marks, get set, go!



Click on the animal tracks to move on

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15531

1

Choose ten animals from your list.

- For each animal choose the most efficient part and explain why.
For example:

The legs of a ...



2

spider?



3

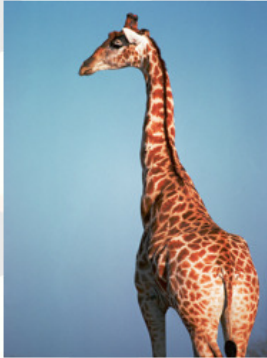
Because they are good for:

- a) climbing
- b) weaving webs.

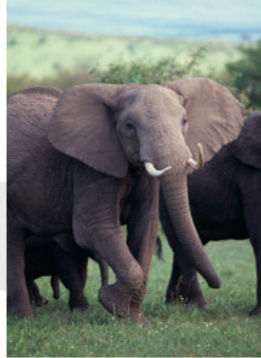


4

Think about these animals and their special attributes and why they are important to the animal and how it lives.



The neck of a giraffe?



The trunk of an elephant?



The pads of a frog?



5



The mouth of a lion?



The eyes of an eagle?



The skin of a chameleon?



6

Set up your ideas in your Super dooper animals chart.



Super dooper animals

What is it about each animal that makes them so special? How are they adapted to suite their environment?

Animal	Part	Reason



7

Now you are going to design the MOST PERFECT creature on the planet!



Your aim is to take the most efficient parts of the animals you looked at and produce a brand new animal that you think is perfect in every way.

Look back at your Super dooper animals chart to help you.

You will need to design a head, body and legs for your animal. We'll look at each part in turn.



8

Start with ... the head

Think about the different parts of your animal's head:

Ears, eyes, mouth (tongue and teeth too), skin (fur or scales for example), nose ... in turn

For each section choose an attribute that you think is perfect! For example the eyes of an eagle for great sight and the ears of a rabbit for amazing hearing.

Don't forget to give a reason for each of your choices!



9

Do the same for the other body parts ...

The body

Think about the neck, back, skin, fur, etc ...

The legs

Think about the feet, claws, etc ...

Complete the My perfect animal sheet listing all the details and reasons for your choices.

My perfect animal design sheet		
Part	Notes	Draw your animal here
Head Ears, eyes, mouth (tongue and teeth too), skin (fur or scales for example), nose etc.		
Body Neck, back, skin, fur, etc.		
Legs		



10

**Now it's time to give your animal a name
and to think about how it lives!**

You will need to also think about its:

- Habitat – where it lives
- Life expectancy – how long it lives for
- Diet – what it eats
- Behaviour – what it likes to do and not do
- Predators – what likes to eat it!

Complete the details on your Meet my animal chart!

**Congratulations you have just created the perfect
animal! – or have you?!**

11



Complete the A to Z of animals.

A		N	
B		O	
C		P	
D		Q	
E		R	
F		S	
G		T	
H		U	
I		V	
J		W	
K		X	
L		Y	
M		Z	



Here are a few to get you started or to use as prompts if you get stuck!

Anaconda	Frog	Ox	Tree frog
Ant	Giraffe	Oyster	Trout
Antelope	Goat	Panda	Turtle
Baboon	Gold fish	Panther	Wasp
Bear	Goose	Parrot	Whale
Beaver	Gorilla	Pelican	Wild pig
Bee	Guinea pig	Penguin	Wolf
Beetle	Hamster	Pig	Zebra
Bird	Hawk	Piranha	
Boa constrictor	Hedgehog	Platypus	
Buffalo	Hippo	Polar bear	
Bull	Horse	Possum	
Camel	Iguana	Puma	
Cat	Jaguar	Python	
Cat fish	Jelly fish	Rabbit	
Caterpillar	Kangaroo	Raccoon	
Chameleon	Koala	Red handed monkey	
Cheetah	Ladybird	Reindeer	
Chicken	Lamb	Rhino	
Chimpanzee	Lemur	Salmon	
Cockroach	Leopard	Scorpion	
Cow	Lynx	Seal	
Crab	Lion	Sharks	
Crocodile	Lizard	Sheep	
Deer	Lobster	Shrimp	
Dog	Mammoth	Skunk	
Dolphin	Mole	Snail	
Donkey	Monkey	Snake	
Dragonfly	Moose	Spider	
Duck	Mosquito	Squirrel	
Eagle	Mouse	Starfish	
Eel	Newt	Sting ray	
Elephant	Octopus	Tiger	
Fish	Orang-utang	Toad	
Flamingo	Ostrich	Tortoise	
Fly	Otter	Toucan	
Fox	Owl		


Super dooper animals

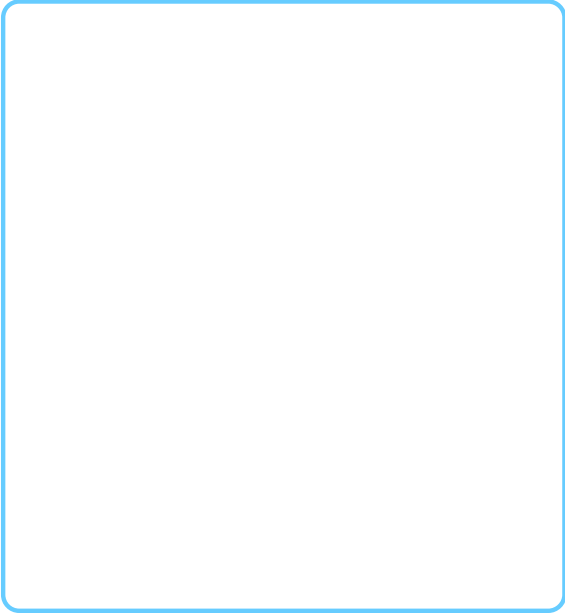

What is it about each animal that makes them so special? How are they adapted to suit their environment?

Animal	Part	Reason



My perfect animal design sheet

Part	Notes	Draw your animal here
Head Ears, eyes, mouth (tongue and teeth too), skin (fur or scales for example), nose etc.		
Body Neck, back, skin, fur, etc....		
Legs Feet, claws, etc....		

 <p>Meet the _____</p>	 <p>Predators: what eats it</p>
<p>Habitat: where it lives</p> <p>Diet: what it eats</p>	<p>Life expectancy: how long it lives for</p> <p>Behaviour: what it does and doesn't like to do</p>

To access this resource please log in to the Teachit Primary website and type 15531 into the search bar.



Drag the tiles to rank the animal features in order of importance.

ability to swim

ability to fly

strength

ability to communicate with others

capacity to have live young

speed

ability to use camouflage

large teeth

height



agility

Learning Outcomes:


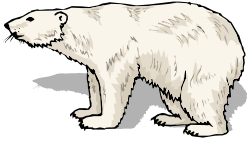








- I know about the different plants and animals found in different habitats.
- I can describe how animals and plants in different habitats are suited to their environment.

Research

Use the internet and research books to find and list examples of plants and animals that live in each environment.

	Arctic		Rainforest		Meadow
	Mountain		Desert		Woodland
	Ocean		Pond		Swamp

Pick one animal from each habitat and describe the features it has which help it to survive there. An example has been done for you.

 <p>Arctic</p> <p><i>A polar bear lives in the Arctic. It is white as this makes it easy to camouflage it and hide from predators. It has thick fur all over its body to insulate it from the cold.</i></p> 	 <p>Rainforest</p>	 <p>Meadow</p>
 <p>Mountain</p>	 <p>Desert</p>	 <p>Woodland</p>
 <p>Ocean</p>	 <p>Pond</p>	 <p>Swamp</p>

Test your knowledge!

Complete the passage below by filling in the gaps.

environment	omnivores	prey	carnivores	adapt	habitat
-------------	-----------	------	------------	-------	---------

All plants and animals live in a The word habitat describes their local Some animals are others are predators. Animals that eat only meat are called Animals that eat both plants and animals are Sometimes plants and animals have to, or change in order to survive.

Quick Quiz

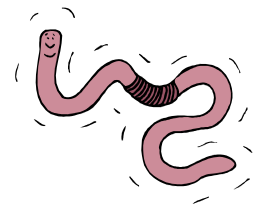
1. Why do some animals camouflage themselves?

- A. To hide from predators
- B. To look pretty
- C. To keep warm



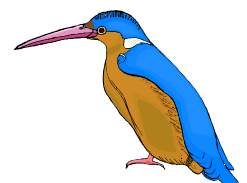
2. Where would you expect to find a worm?

- A. In a hot, dry place
- B. In a dark, damp place
- C. In a dark, dry place



3. Which habitat do kingfishers live in?

- A. Rainforest
- B. Meadow
- C. River



Get ready to become a 'squirrel expert!' Read the following information carefully - you need to answer questions at the end to prove your squirrel expert credentials.



The Squirrel

The squirrel is one of the best known animals in Britain. It is a small **mammal** that can be found in trees and woodlands. Some squirrels live in cities, parks and gardens where there are plenty of places to hide and climb.

Squirrels are characterized by their bushy tails and great agility; they can leap from tree to tree and run along narrow branches. Squirrels can even run head first down a tree trunk leaping up to six metres and still land safely. Squirrels use their tails to help them to balance and their claws to grip the bark.

Squirrels are mainly plant eaters. They eat fruits, nuts, acorns and seeds but are also known to eat tree bark, buds, flowers, birds' eggs and even chicks! Squirrels have a strong sense of smell; they smell their food before eating it to make sure it is good. There are two different species of squirrel living in Britain; these are red squirrels and grey squirrels.

Enemies

In the woodland, squirrels have many predators including buzzards, pine martens and foxes. In the cities, squirrels are more likely to be caught by cats and dogs.

The main enemies of the grey squirrel are humans. Foresters trap and shoot them in order to protect the trees from damage caused by their gnawing.

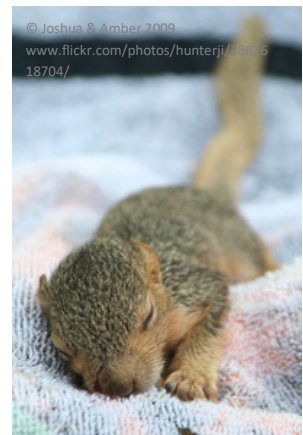
Reproduction

A female squirrel is pregnant for about six weeks. She gives birth up in a tree, in her nest called a drey. Young squirrels are called kittens and they feed off their mother's milk. A squirrel litter can contain between three and nine kittens.

Kittens are born deaf, blind and have no teeth or hair. They are completely dependent on their mother when they are born. The male squirrel does not help to rear the kittens.

Kittens stay in the drey for seven weeks. By this time, they have teeth and are ready to eat some solid food.

At four months old, the young squirrels are ready to leave their mother. They will go on to build their own dens or dreys. Sadly, up to 75% of kittens will not reach their first birthday. Some die from disease and others are killed by predators.



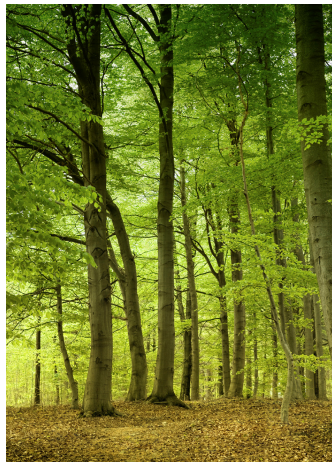
Grey squirrels



The grey squirrel was introduced into Britain about 130 years ago from North America. Nowadays, there are more grey squirrels than red squirrels across Britain. The grey squirrel outnumbers the red squirrel by 16 to 1!

Grey squirrels prefer to live closely together in deciduous woodland with oak and beech trees.

The grey squirrel has a bushier tail than the red squirrel and weighs more. Grey squirrels are mostly grey haired, but some are half red and half grey and some are even black!



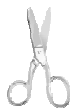
Red squirrels



The red squirrel has lived in Britain for thousands of years. Red squirrels are found in Scotland, Wales and some parts of England.

Red squirrels like to live in coniferous forests of spruce and pine trees. Red squirrels like to spread out in the woodland, unlike the grey squirrels.

The red squirrel is smaller than the grey squirrel with a smaller tail. It has reddish-brown hair.



Name: Date:.....



Now you are a 'squirrel expert' try answering the following questions. Refer back to the information and give as much detail as you can.

1) What are the two different species of squirrel?

.....

.....

2) Squirrels can use their bushy tails to keep warm and what else?

.....

.....

3) What is another name for a squirrel's den?

.....

.....

4) What evidence can you find to suggest that squirrels are agile?

.....

.....

5) When was the grey squirrel introduced into Britain?

.....

.....

6) What kind of woodland do grey squirrels prefer to live in?

.....

.....

7) Which of the squirrels is larger, the red or the grey?

.....

.....

8) Describe the appearance of a baby squirrel.

.....

.....

9) How long do the young stay in the drey for?

.....

.....

10) What part do the males play in rearing the young?

.....

.....

11) How many kittens are estimated to reach their first birthday?

.....

.....

12) What enemies do squirrels have? Who is their worst threat?

.....

.....

13) What do squirrels like to eat?

.....

.....

Create a glossary of the following words from the information pack.

drey		forester	
mammal		species	
coniferous		kitten	
predator		gnawing	



Squirrels form part of a complex food web for woodland creatures. Draw a simple food chain for the squirrel including a single producer and predator

Draw images of your choices	Producer: what does a squirrel eat?	Consumer: in this chain is the squirrel	Predator: what eats squirrels?
	Name of producer:	Grey or red squirrel?	Name of predator:

Draw images of your choices	Producer: what does a squirrel eat?	Consumer: in this chain is the squirrel	Predator: what eats squirrels?
	Name of producer:	Grey or red squirrel?	Name of predator:

Get out and about! Have a work around your local area and see if you can find the trees which match these leaves. Draw a sketch of the tree or even better take a photograph and then stick them in!



Oak

A large, empty rounded rectangular box with a green border, intended for a child to draw a sketch of an oak tree or stick a photograph of one.

Spruce

A large, empty rounded rectangular box with a green border, intended for a child to draw a sketch of a spruce tree or stick a photograph of one.

Beech

A large, empty rounded rectangular box with a green border, intended for a child to draw a sketch of a beech tree or stick a photograph of one.

Pine

A large, empty rounded rectangular box with a green border, intended for a child to draw a sketch of a pine tree or stick a photograph of one.



Get ready to become a 'fox expert!' Read the following information carefully - you need to answer questions at the end to prove your fox expert credentials.

Fox facts

The fox is a sort of **wild dog**. It is related to domestic dogs, coyotes and wolves.

The fox found in Britain is the **red fox**. The fox can be found in many places including woodlands, farmland and in the countryside. Some foxes live in cities, parks and gardens where they are often seen roaming around at night.



Appearance

Red foxes are characterised by their orange-red or rusty-red fur. The fur on their belly is usually white.

Foxes have bushy tails and blackish legs. They have large pointed ears and a long **muzzle**.

However, not all red foxes are the same. Some have almost black fur and others have silvery grey fur.

Diet

Foxes are **omnivores** which means that they eat both plants and animals. What they actually eat is often determined by their **habitat**. Town foxes eat scraps such as old meat bones and those living near water eat dead sea birds. Foxes generally eat animals such as mice, birds, rabbits and beetles. Foxes also like to eat plant roots and black berries. Foxes are known as **predators** because they hunt and kill other animals.

Much of a fox's day is spent **scavenging** for food.

Did you know?

Foxes are known as **nocturnal** because they usually come out at night.



Did you know?

Foxes have a very good sense of hearing and smell.

Enemies

The fox is not generally preyed upon by other animals and is said to be at the top of the **food chain**.

The main enemies of the red fox are humans. Farmers trap, hunt and shoot them in order to protect their livestock such as hens and young lambs.

Many foxes are killed on the roads at night. Foxes also have a tendency to suffer from a skin disease known as the **mange**. This disease can kill thousands of foxes every year.



Did you know?

Foxes like to hunt alone.

Reproduction

The male fox is called the **dog** and the female is known as the **vixen**. The young foxes are **cubs**. Foxes mate in or around January or February time.

The female is only pregnant for two months, in which time she prepares a warm, dry nest in the ground. The nest is called an **earth**. A litter of cubs is usually four or five and they are born in the spring. Newborn cubs rely entirely on their mother for warmth and milk.

They are born blind and deaf.

The role of the male fox is to bring food for the mother. Around May, the cubs begin to venture out of the earth with their mother and by October they are ready to leave home and fend for themselves.

Did you know?

Foxes are mammals.

Now you are a 'fox expert' try answering the following questions. Refer back to the information and give as much detail as you can.



1. What are the different habitats of a fox?

2. Which fox is found in Britain?



3. Describe the red fox.

4. What is another name for a fox's nest?

5. When do foxes prefer to hunt?



6. Why are foxes known as nocturnal animals?

7. Why are foxes disliked by farmers?

8. How do foxes prefer to hunt?



9. What are baby foxes called?

10. Describe an infant fox.

11. For how long do the young stay in their nest?

12. What part do the males play in rearing the young?



13. How many cubs are usually in a litter?

14. What enemies do foxes have? Who or what is their worst threat?

15. What do foxes like to eat?

16. What colours can red foxes also be?



Create a glossary of the following words from the information pack.

mammal

earth

scavenger

nocturnal

habitat

omnivore

vixen

dog

food chain

cub

muzzle

predator

Draw or insert a picture of these fox habitats.

A large, empty rectangular box with rounded corners and a green border, intended for drawing or inserting a picture of a woodland habitat.

woodland

A large, empty rectangular box with rounded corners and a green border, intended for drawing or inserting a picture of a countryside habitat.

countryside

A large, empty rectangular box with rounded corners and a green border, intended for drawing or inserting a picture of an estuaries habitat.

estuaries

A large, empty rectangular box with rounded corners and a green border, intended for drawing or inserting a picture of a city or town habitat.

city or town

A large, empty rectangular box with rounded corners and a green border, intended for drawing or inserting a picture of a parkland habitat.

parkland

A large, empty rectangular box with rounded corners and a green border, intended for drawing or inserting a picture of a gardens habitat.

gardens

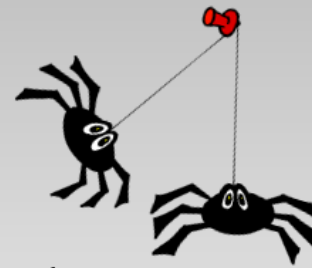
Spiders

Love them or hate them?

Everyone's sure to have an opinion on them!

Your mission is to turn a spider hater into a spider fan.

Click on the webs to lead you through the steps to success.



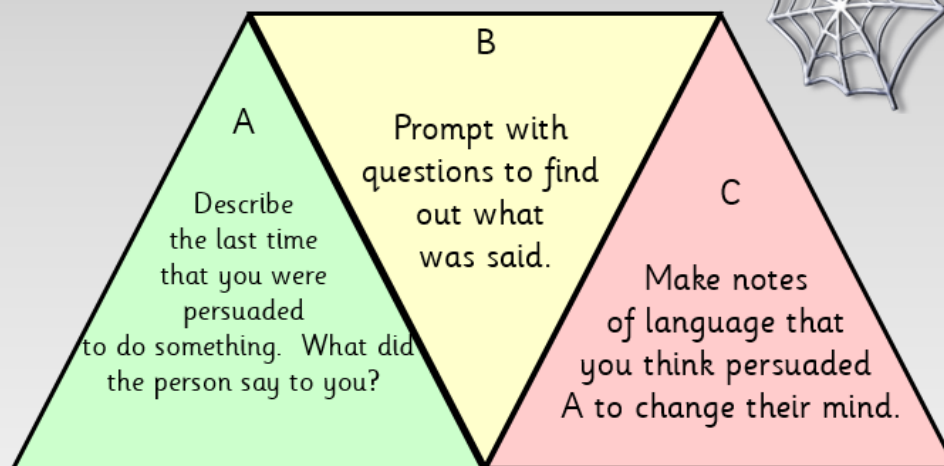
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8094

1

How easily are you persuaded?

Talk triangles:



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2

What language could we use?



Adjectives – beautiful, amazing, fantastic

Emotive words – mind-blowing, best in the world

Strong verbs – swoops, storms, sweeps

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8094

...

3

Some useful spider facts to back up your arguments



Spiders are born with an instinct for weaving webs.

Spiders eat insects which are known to harm plants.

Spiders found in the United Kingdom are harmless.

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...

4

Persuasive writing



Mr Jones is terrified of spiders and wants to have all spiders exterminated!

How can we use the facts to create an argument to persuade him not to do this?

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8094

5

Developing your point



Fact:

Spiders are born with an instinct for weaving webs.

We need to develop this fact into a paragraph to persuade Mr Jones that this is a good thing.

What words can we add?



Two minutes – develop with your partner.

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6

Developing your point: try inserting some persuasive language



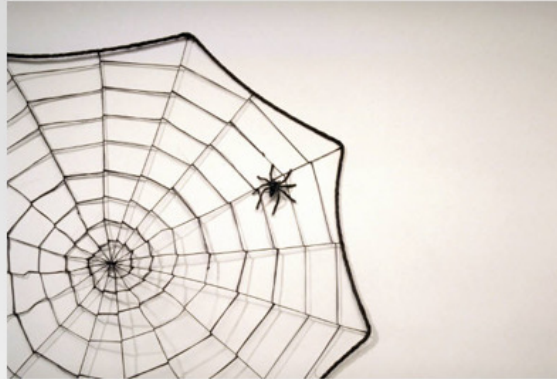
Spiders are the most . They are born with a for weaving the most and webs, which can be admired in most gardens. In particular, they look in the winter time, when the frost highlights their and causes the webs to glisten and sparkle. They should be examined and by any human being.

Developing your point: here are some suggestions



Spiders are the most amazing creatures. They are born with a superb instinct for weaving the most delicate and intricate webs, which can be admired in most gardens. In particular, they look stunning in the winter time, when the frost highlights their beautiful, diamond structure and causes the webs to glisten and sparkle. They should be examined and admired by any human being.

Now write a letter to Mr Jones to persuade him to change his opinion about our eight legged friends!





Cut out the labels and pictures below. Match the picture to the animal name and stick each set onto one of your animal information cards.

hedgehog

mouse

rabbit

fox

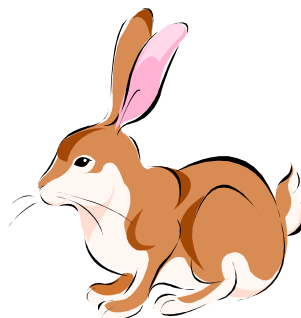
squirrel

woodpecker

deer

owl

badger





Stick the animal names and pictures on to the information cards. Use the internet and/or animal information books to help you to complete each card for each animal.

Animal information card

Stick animal name here

Stick animal picture here

This animal lives

It likes to eat

In the winter

This is something else I discovered about this animal:

.....
.....

Animal information card

Stick animal name here

Stick animal picture here

This animal lives

It likes to eat

In the winter

This is something else I discovered about this animal:

.....
.....





Match the riddle to the animal. Stick the riddle onto the back of the information card for the correct animal.

My group name is a drey or a scurry. I have four front teeth that never stop growing.

What am I?

I look a little bit like a dog. I have a reddish brown coat with a white tipped bushy tail.

What am I?

I have large ears and strong hind feet. You may recognise me from my fluffy tail.

What am I?

I like to nest in the hollow of tree. I sleep by day and hunt small animals by night.

What am I?

I am covered in spines. When I am frightened I roll up into a ball. I like to eat insects.

What am I?

I only come out at night. I live in a burrow called a sett with my family.

What am I?

I am a doe and my partner is a stag. Our baby is called a fawn or a yearling.

What am I?

My babies are called pinkies or kittens. I am very small and weigh only a few grams.

What am I?

I use my beak to remove bark from trees to find tasty insects.

What am I?



Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday



What's the weather?

cold

hot

raining

sunny

misty

snowing

cloudy

windy

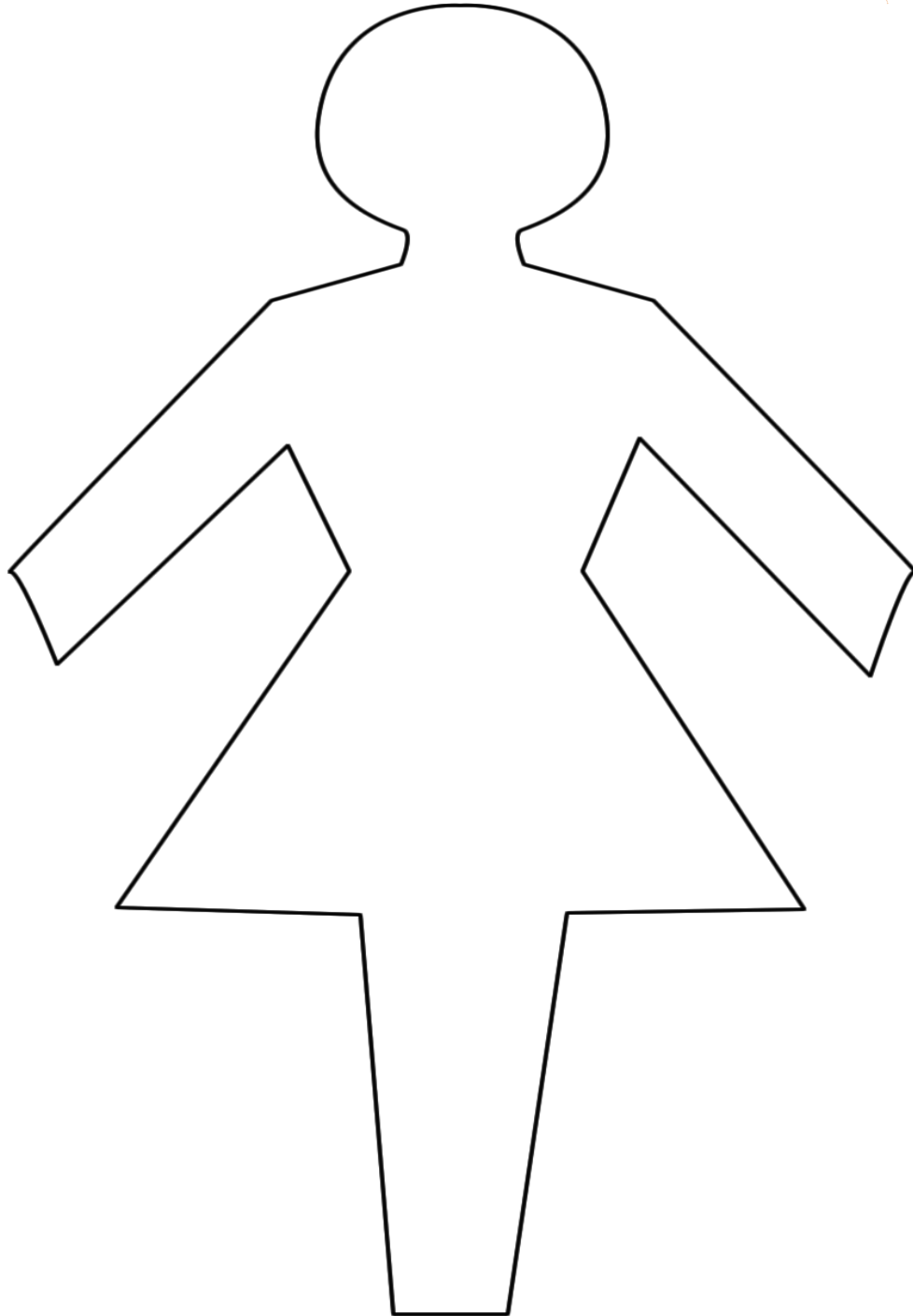
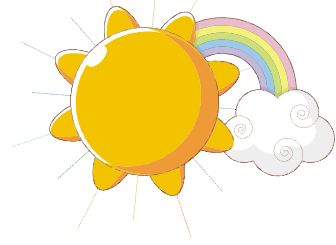
frosty

icy

What day is it?	What is the weather like?
Today is .	Today it is .
Today is .	Today it is .
Today is .	Today it is .
Today is .	Today it is .
Today is .	Today it is .
Today is .	Today it is .
Today is .	Today it is .

What's the weather like today?

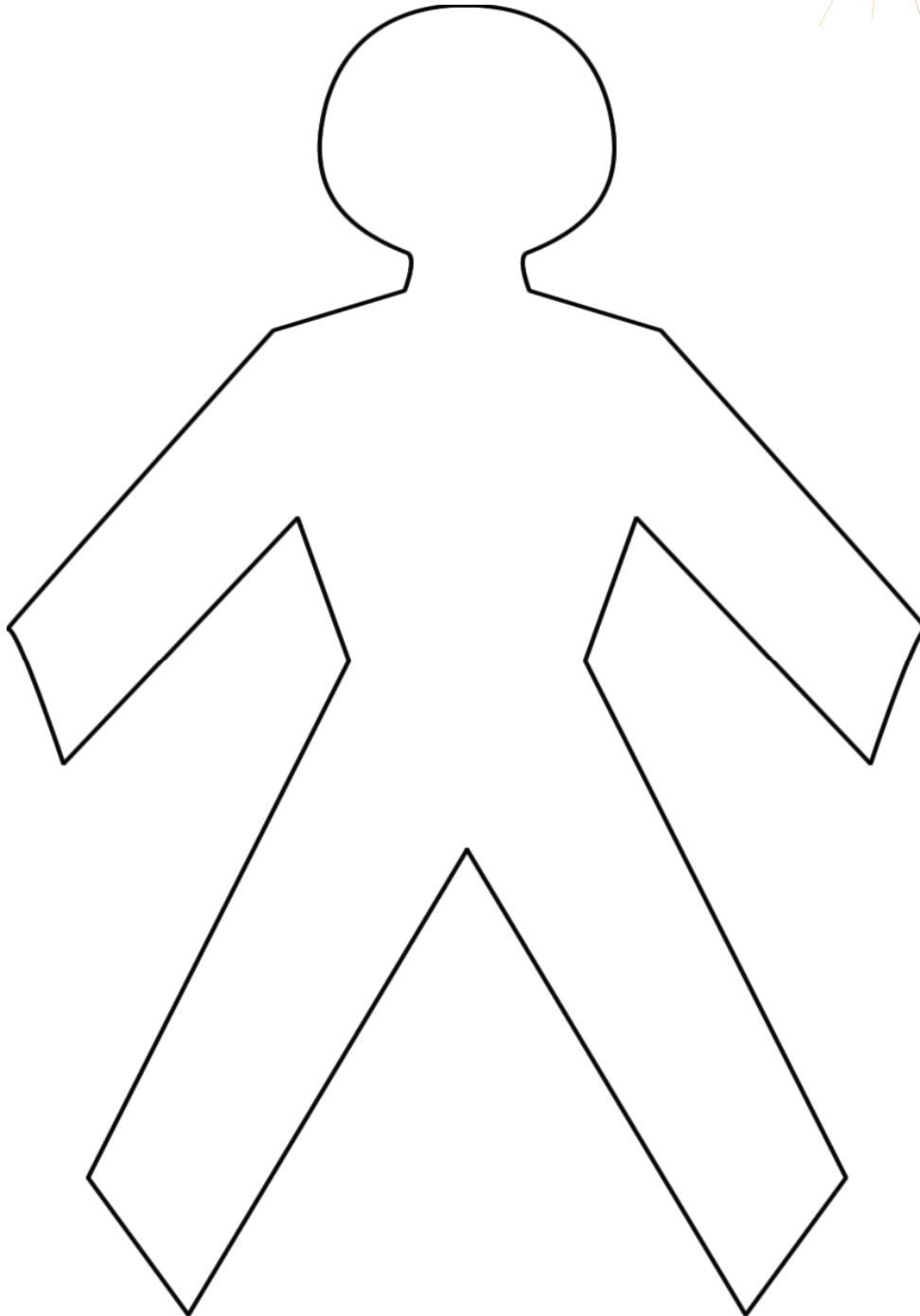
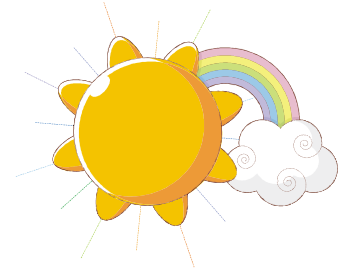
Dress the person so they are ready for today's weather!



Today it is

What's the weather like today?

Dress the person so they are ready for today's weather!



Today it is



How many different types of tree can you find?

Tree

Find and stick a leaf here:



Silver birch



Oak



Sycamore



Ash



Horse
chestnut



Elm



Willow



Beech



Cedar



Redwood



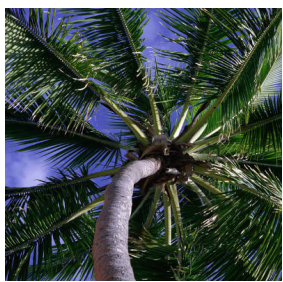
Monkey
puzzle



Crab apple



Spruce



Palm

Photo credits

Silver birch

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Oak

© hathome 2005 www.flickr.com/photos/hathome/37740495/

Sycamore

© garryknight 2011 www.flickr.com/photos/garryknight/5631867602/

Ash

© Matt Lavin 2008 www.flickr.com/photos/plant_diversity/5108083418/

Horse chestnut

© wallygrom (very busy at work) 2010 www.flickr.com/photos/33037982@N04/4602575942/

Elm

© Jason Sturner 72 2005 www.flickr.com/photos/50352333@N06/4645909547/

Willow

© Public Domain Photos 2010 www.flickr.com/photos/free-stock/4904582345/

Beech

© themajesticfool 2009 www.flickr.com/photos/the-majestic-fool/3593494620/

Cedar

© hern42 2010 www.flickr.com/photos/hern42/5132918920/

Monkey puzzle

© wlcutler 2010 www.flickr.com/photos/wlcutler/4972822962/

Crab apple

© bobosh_t 2010 www.flickr.com/photos/frted/4520243670/

Spruce

© olibac 2008 www.flickr.com/photos/olibac/2290880716/

Name:

Date:



Read the passage below. Which words would you use to complete it?
Insert words from the box below to help you fill in the gaps.

skin	flesh	stalk	grow	seeds
dispersal	flower	through	leaves	

Inside fruit you will find These can into new plants.

Around the seeds is the of the fruit. Both the flesh and the seeds are protected by the fruit's If you look carefully, you can find clues that show that the fruit was once a At one end will be a that was one the flower's stem. At the other end you will sometimes find small, dead (called sepals) that were once part of the flower.

The flesh is full of sugar and is an important source of energy. Many animals will eat the fruit and the seeds along with it. In the end, the seeds pass the animal and begin to grow where it lands. This is called *animal / seed*



Name:

Date:



Take four different fruits and cut them in half. Draw what you see and label the following parts: seeds, stalk, flesh, skin







Name of fruit: _____	Name of fruit: _____
Name of fruit: _____	Name of fruit: _____



A salad in a jar

To create a 'salad in a jar' follow these simple instructions. Record the growth of the plants by drawing a picture of the bean at each stage in the spaces provided.

You will need:

					
an empty jam jar	a hankie	a large spoon	mung or adzuki beans	a cup of water	an elastic band

1 Put two spoonfuls of beans into the jam jar.

2 Pour some water over the beans so that the beans are covered.

3 Place the hankie over the top of the jar and put the elastic band round the top. Leave the beans to soak in a cupboard for 12 hours.

4 Pour the water out through the hankie.

5 Empty the water every day and add fresh water to the beans.

6 How long did the beans take to grow?
 _____ Draw a picture of the sprouts.



Photo by C. Liggett 2012, with permission

A garden in a jar

Here are some instructions for growing your own garden in a jar. Write the instructions in the correct order below.

You will need:

an large empty jam jar	small stones	compost	a fork	a cork	small plants

Keep the compost damp.

Use the fork to make holes in the compost.

Cover the stones with the compost.

Put the stones in the bottom of the jar.

Put the plants in the holes.

Gently press the compost round the roots with the cork.

The instructions above have been jumbled up! Write them in the correct order here.

1.
2.
3.
4.
5.
6.

Teaching notes

Salad in a jar

The children can read the instructions and draw a picture in each box in order to record how they have made the salad in a jar.

The beans take about a week to grow and they are safe to eat.

A garden in a jar

Talk about why we put the stones at the bottom and the risk of water clogging.

Here are the instructions in the correct order:

1. Put the stones in the bottom of the jar.
2. Cover the stones with compost.
3. Use the fork to make holes in the compost.
4. Put the plants in the holes.
5. Gently press the roots with the cork.
6. Keep the compost damp.

Name: **Date:**

Learning objective: To understand what plants need to grow well.

Look closely at the plant your teacher has brought in for you to study. Draw a detailed picture of it and include labels for the stem, root and leaves. Label any other interesting things you can see.

Think of all the things a plant needs to help it grow. Show this in the table below.

A picture of a plant that will grow well	A picture of a plant that will not grow well

Use this vocabulary to write some sentences to explain what plants need to grow well.

stem roots leaves soil water sun materials

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

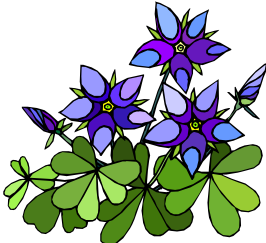
.....

.....

.....

.....

.....



Name: Date:

Learning objective: To investigate using a fair test.

Investigation

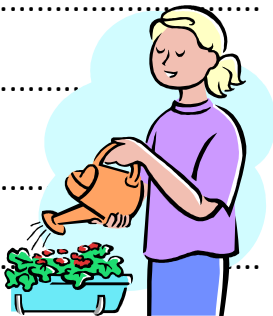
Aim: To investigate how much water plants need to help them grow.

Equipment:
.....
.....
.....

Method:
.....
.....
.....
.....
.....

What we will keep the same:
.....
.....

What we will change:
.....
.....



Results:	Plant 1 no water	Plant 2 5ml water	Plant 3 20ml water	Plant 4 50ml water
Description of plant on day 1				
Description of plant on day 3				
Description of plant on day 5				
Description of plant on day 7				

Our conclusions:

Name: Date:

Learning objective:

- To name and label the parts of a plant.
- To state their properties and functions.

Draw a plant in this box. Use labels to show what the different parts are called.
Can you add any other information about your plant?

Can you match each part of a plant to its job?

root	The stalk that supports the flower, leaf or fruit. It carries water to the leaves and flowers.
flower	The part of a plant that usually grows down in the soil.
stem	Green, flat foliage supported by the stem. It makes food for the plant.
bud	A small leaf and/or flower ready to grow.
leaf	The blossom of a plant. Their smell and colour attract insects.

What do the different parts do?

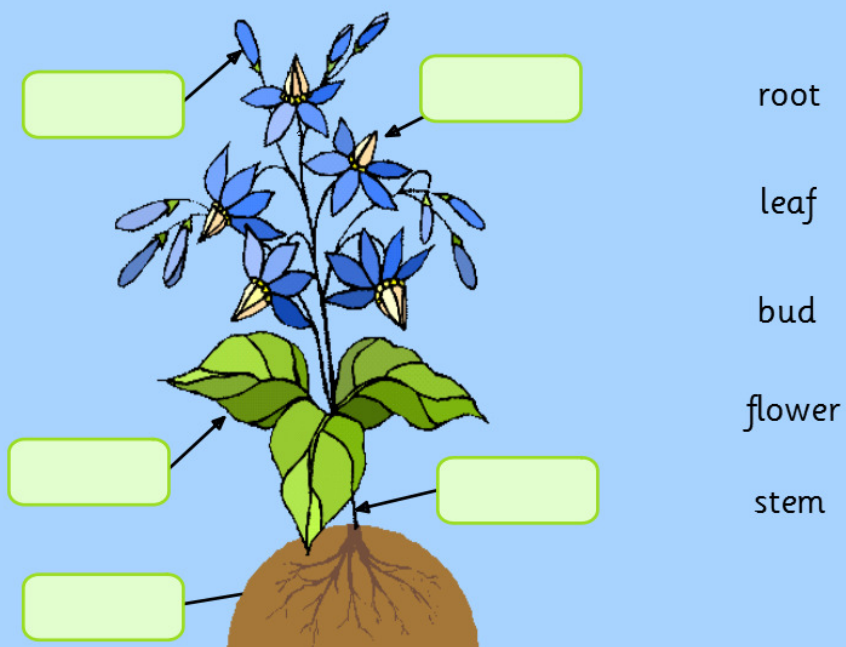
Fill in the gaps using the words below.

food growth flower stem minerals
ground stable leaves pollination

Water and minerals are carried around the plant by the _____ . It is the roots that take up _____ and water from the _____. The roots are also very important as they hold the plant in the ground, keeping it _____. The bud is the new _____ on a plant. The bright colours of the _____ attract bees which is important for _____. The _____ use the sunlight, carbon dioxide and water to make _____ for the plant.



Can you label the parts of the plant correctly?

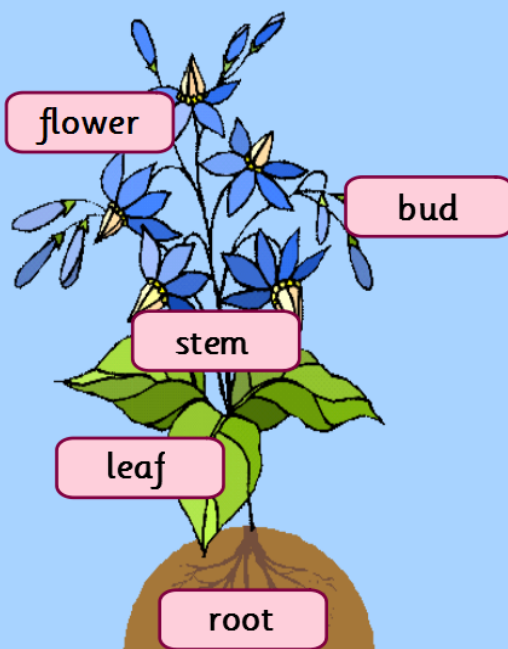


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14081

Page 1 of 3

What does each part of a plant do?



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14081

Page 2 of 3

Do you know what each part of a plant does?

root

The stalk that supports the flower, leaf or fruit. It carries water to the leaves and flowers.

flower

The part of a plant that usually grows down in the soil.

stem

Green, flat foliage supported by the stem. It makes food for the plant.

bud

A small leaf and/or flower ready to grow.

leaf

The blossom of a plant. Their smell and colour attract insects.



Other curriculum areas

Where to begin, or rather where to stop?! Be it Maths – creating scale plans for garden designs or calculating costs for your outdoor projects – or Art, using viewfinders to identify that perfect focal point or looking at how nature has influenced the work of artists such as Andy Goldsworthy (a favourite of mine and most other Primary teachers I'm sure). Considering our own environment, how to improve it and maintain it and then comparing it with other locations is just what Geography is all about! Of course the Design technology model of developing ideas, planning, production and evaluation can be applied to a whole host of outdoor projects from building bird boxes or bug homes to creating dens. The list goes on and on ...

2014 curriculum links:

Other area aims met within this project pack

- (KS1 Design Technology) Build structures, exploring how they can be made stronger, stiffer and more stable.
- (KS1 Geography) Identify seasonal and daily weather patterns in the United Kingdom
- (KS1 Geography) Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs
- (KS1 Art and design) Be taught about the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work.
- (KS2 Science) Recognise that environments can change and that this can sometimes pose dangers to living things.

Teaching ideas

- Looking for ways to improve the local environment is a key aspect of outdoor learning; after all if you're going to be spending more time there you want it to be pleasant! Taking a critical walk around the school grounds allows children to identify issues but also to come up with their own solutions. [Resource 14084: School Improvements](#) and [Resource 15723: Design sheets – local area](#) are a brilliant starting point for these ideas and then [Resource 14085: Consider this](#) puts forward the dilemmas of building developments. [Resource 8286: Environment detective](#) is a good way for children to analyse the features of their own local park.
- From Lowry to Turner the world around us provides countless vistas to inspire our young artists, either looking out on a wide landscape or focusing in with a view finder to find that perfect picture. [Resource 14609: Portraits and landscapes](#) explores and presents ideas about art to children in a vivid and useful way.
- Using the environment itself as a medium, as with the work of Andy Goldsworthy, to create natural sculptures is great fun. If you live close enough a trip to the Yorkshire Sculpture Park at West Bretton would be a fantastic treat. If you are further afield a quick Internet search provides lots of images of his work.
- Establishing links with a school in a contrasting setting to your own is a great way of giving children a different perspective. You can exchange videos, letters, and photographs to build up a picture of another place. It doesn't have to be miles away so visits could also be on the cards.
- Everyone enjoys building dens but the challenge is; is it fit for purpose? Get children to consider the different criteria a den would need to meet if it were for a fictional character – Stig of Dump or one of the Three Little Pigs, for example – and then of course they will need to start construction. [Resource 9719: Build the Three Little Pigs' house](#) enables this, possibly followed by [Resource 15537: Tree-mendous tree houses](#) which is a great way to inspire children to imagine and plan their own space.

Resources contained within the Other Ideas section of this project pack

School improvements	104
Design sheets – local area	106
Consider this	108
Environment detective	111
Portraits and landscapes	114
Build the Three Little Pigs' house	115
Tree-mendous tree houses	117

Name: Date:

Learning objectives:

- To identify positive and negative aspects of a locality.
- To suggest a variety of ways in which a particular environment could be improved.



Think carefully about four different areas of your school. What aspects do you like and dislike about it? Use the table below to record your thoughts about the four locations.

Location	Two positive things about the location	Two negative things about the location	Ideas for improving the location	Who would manage the work? How long would it take?

Select one area of your school. Carefully consider which aspects need improving and how you would do this. Include a detailed diagram of your design. Remember to include labels and information as to how it will be improved.

The area of school I want to improve is:

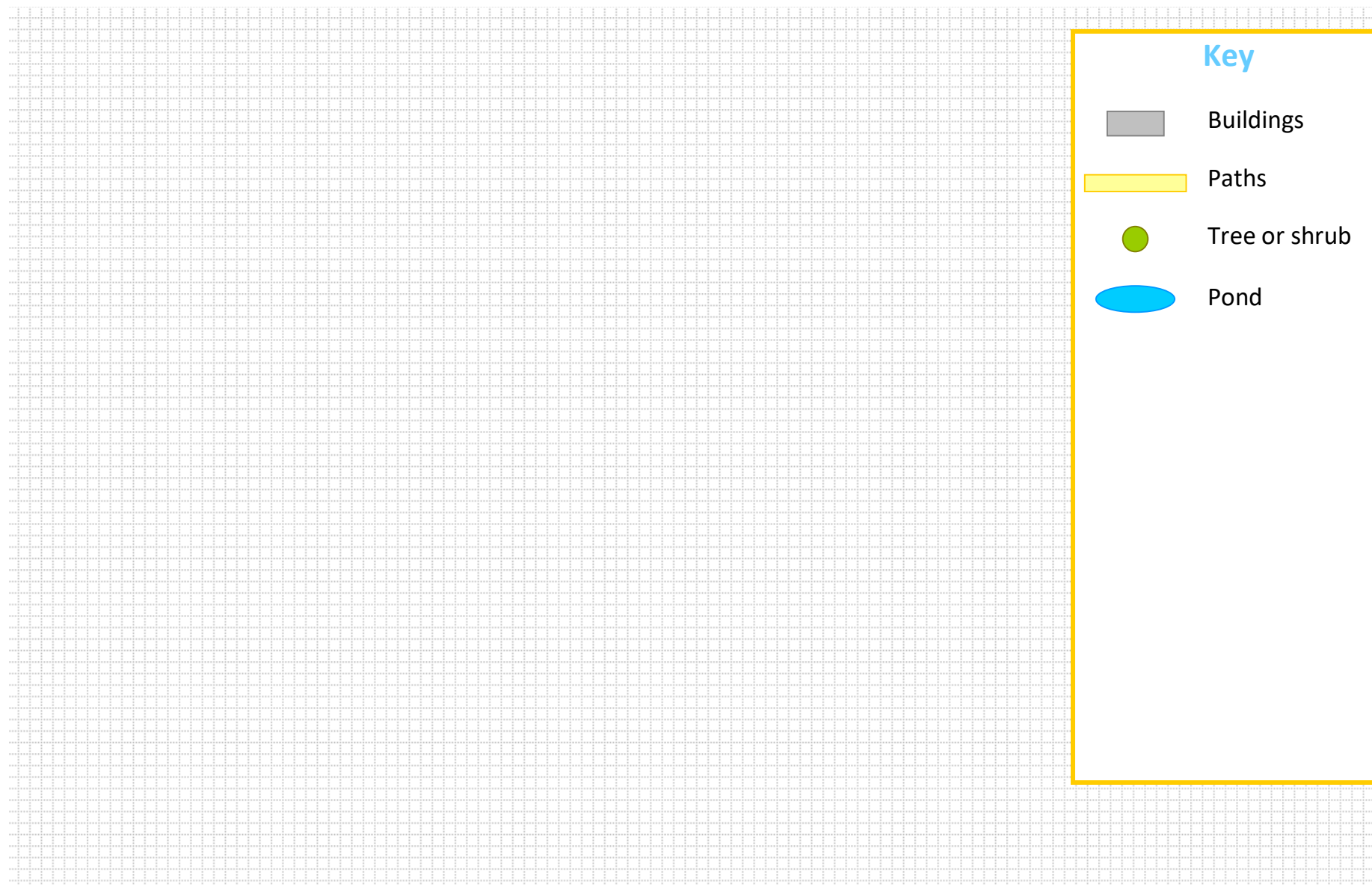
.....

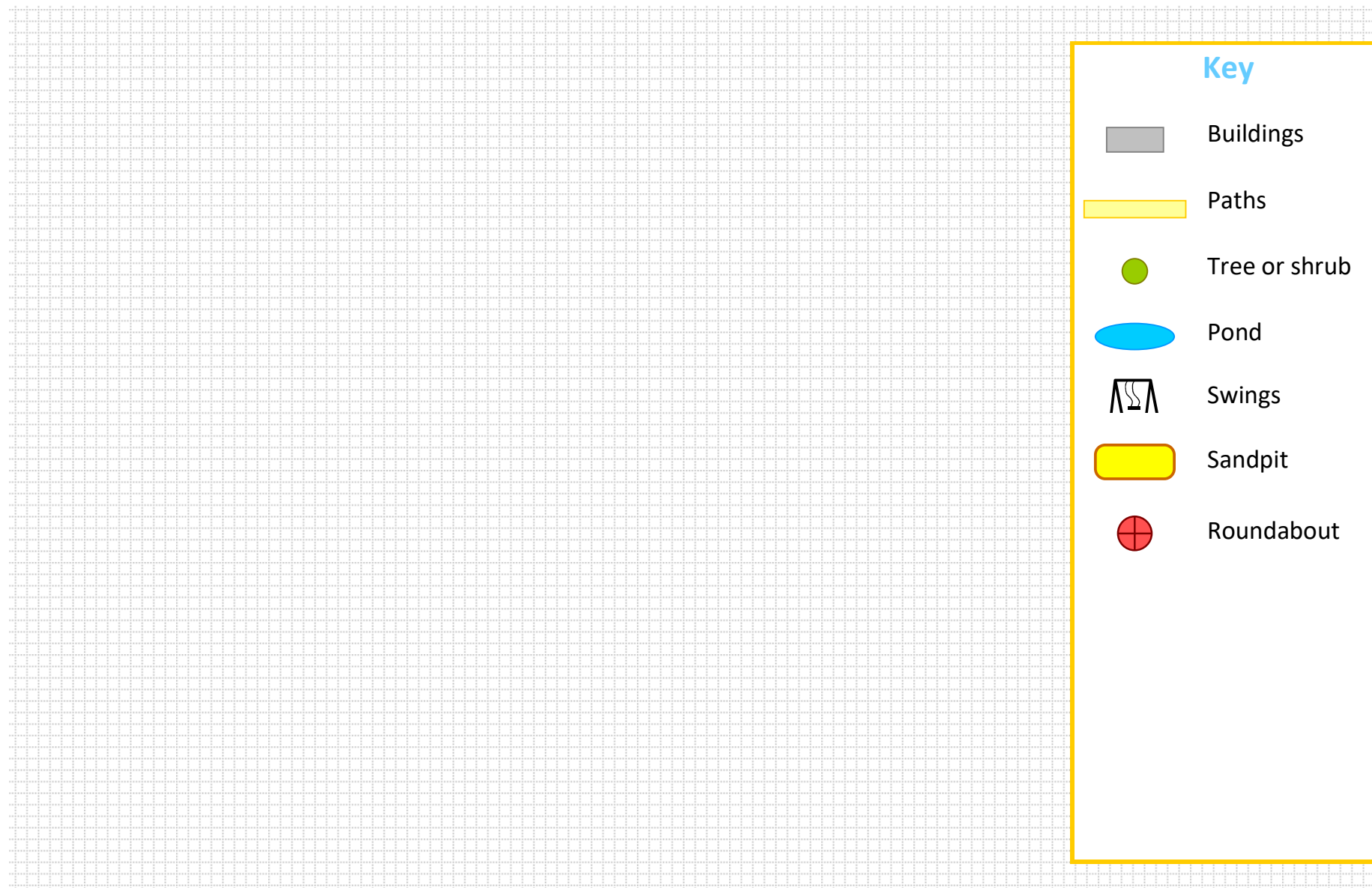
The main issues for improvement are:

(e.g. pollution, litter, general untidiness, not eco-friendly)

-
-
-
-

My design for the area

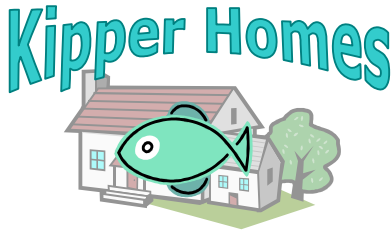




Name: Date:

Learning objective: To identify different facilities within the locality and understand their use and how they could be improved.

Imagine this letter has been sent to one of the people who own the land around your school. If you owned the land, what would you do? Write a list of the good and bad points about selling the land.



Customer Relations
Green View Place
Old Street
Everytown
ET1 1LM

1st June 2009

Dear Mr Head

I am writing to offer you a considerable sum of money for your strip of land next to the primary school. The offer would be one lump sum of £1.2 million on acceptance (subject to planning permission).

We propose to build 100 new homes on the land, as well as a shopping block with room for four shops/units for business. There has already been interest in these units from newsagents, pizza companies, cycle shops and hairdressers looking to expand their businesses.

We foresee no problems acquiring planning permission and should therefore be able to have completed the deal by the end of next year.

In anticipation of your acceptance of this offer, we thank you and look forward to speaking to you in the near future.

Yours sincerely,

Mr S. Kipper

Location Manager

Now imagine you are the headteacher. What do you think will be on their list of good and bad points about the plan?

Take a look at the locality around your school and fill in the table below.

[illegible]

Possible locations for our development:

Traffic/road safety measures identified:

New build challenge!

Your challenge is to develop a new road with accommodation for families and single occupants, to be built in the locality. There should be at least 50 dwellings, and the development needs to have a road name and car parking. There will need to be at least four useful facilities (consider some you have seen within the existing locality), and some road safety measures. It will also need a facility of your choice to improve the quality of life for all the residents of the new road.

Your project will need to include the following:

- ✓ A clear map indicating the chosen site, including reasons for choice
- ✓ A 3D model of the road
- ✓ A 2D bird's eye view plan of your road with a key
- ✓ An A4 information leaflet about the road, with specific information about the new facility that will improve the quality of life for residents of the road.
- ✓ A report outlining safety considerations for your road.

At the end of the project you will be asked to take on the role of an estate agent and persuade other members of the class why your road should be where they buy their first home.

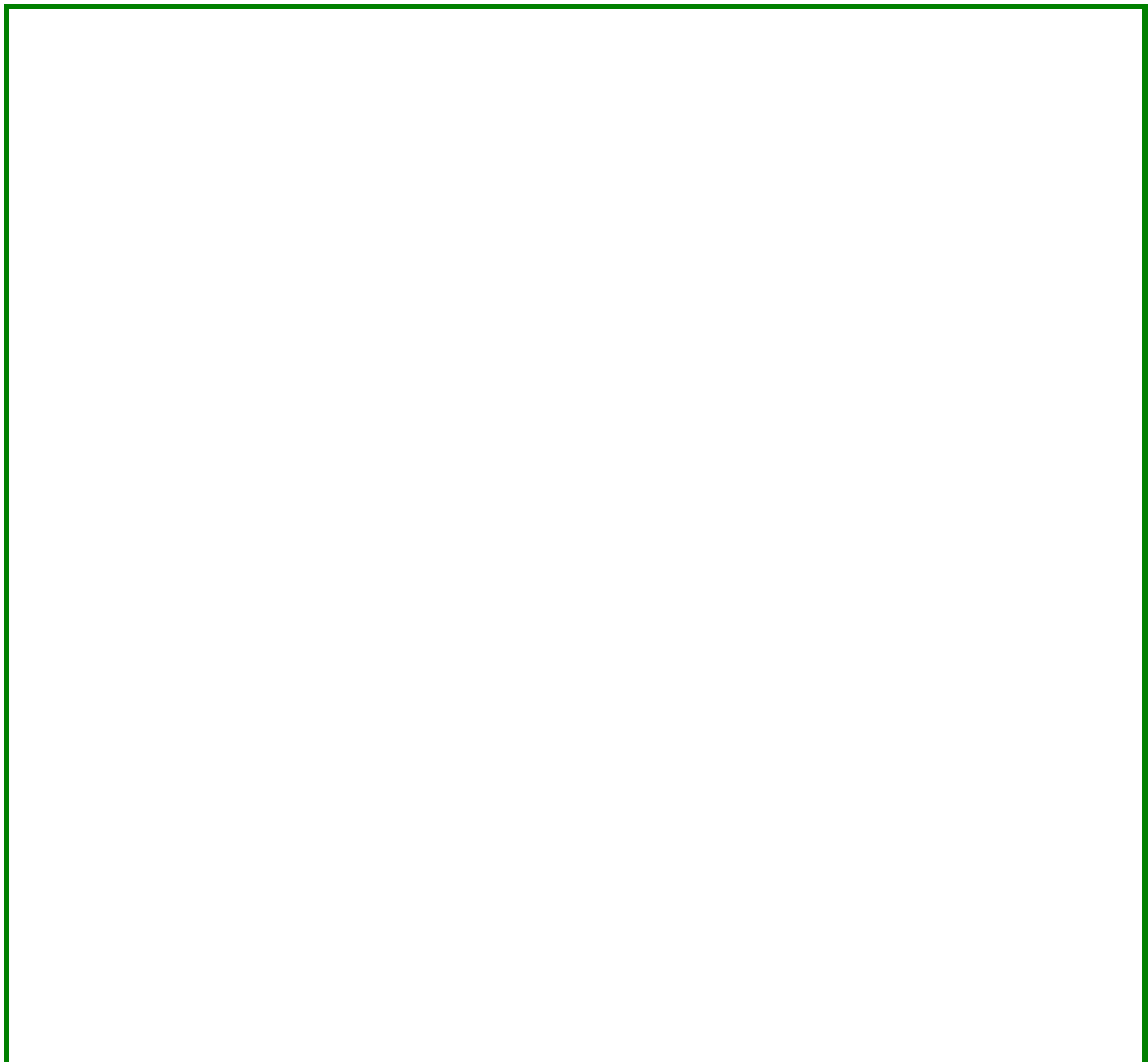


Help! It's a constant battle to keep our environment in good shape, and it's not only the big picture we need to think about, but the smaller one too.

Key word:
environment =
the thing(s) which
surround us.

- Think about what your local park looks like/contains and draw a rough plan of it in the box below...

My local park



- Now look at the grid below. Tick whether your park has the **factors** on the list and decide whether each thing is good or bad. Then give each factor a number from 1 to 5 (1= good and 5 = bad).

Factor to consider	1 = Good 😊	2	3	4	5 = Bad ☹️
Litter					
Graffiti					
Signs					
Seating					
Plants					
Refreshments					
Paths and walkways					
Play facilities					
Lake					
Disabled facilities					
OVERALL					

- Share your findings with a partner then listen to their views.
- Now think about your school environment. Do you think it's a good or bad environment?
- Could it be improved? If so, how?
- Now write a letter to your teacher explaining (politely) your thoughts on the school environment. Outline how you think it could be improved and who would benefit from your suggested changes.
- You could start:

Dear.....,

Thank you for taking the time to read my letter about our school environment...

To access this resource please log in to the Teachit Primary website and type 15531 into the search bar.

What would you like in your local park? Drag the tiles to rank the features in order of importance. ✕

- Seating
- Disabled facilities
- Litter
- Lake
- Refreshments
- Play equipment
- Plants
- Signs
- Paths and walkways
- Graffiti



A **portrait** can be in the form of a photograph, a sculpture, a painting or other representations of a person's face and expressions.

The subject of a portrait is generally in a still position and looking towards the artist or photographer.

A self-portrait is when the artist creates a portrait of him or herself. Here is an example of a self-portrait by Vincent Van Gogh, 1889. This is a painting using oil on canvas.



Task one: Create a portrait of a friend using pencils or another medium of your choice.

Task two: Create a self-portrait of yourself. You can look in a mirror or you may base your representation on a photograph.



A **landscape** is a work of art which generally depicts an area of land. It can include features such as mountains, deserts, forests or river.

A landscape is sometimes thought of as a backdrop to people's lives and there is often a human presence or some evidence of human life.



A **seascape** can be a painting, drawing, photograph or other work of art which represents the sea. Both landscapes and seascapes can depict the weather.



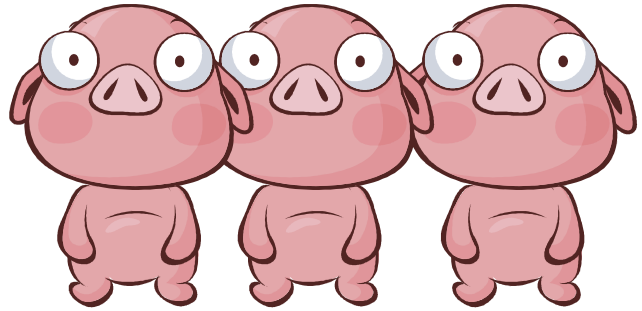
Task one: Create a landscape using pencils or another medium of your choice.

Task two: Create your own depiction of the sea in the form of a seascape.

Instructions

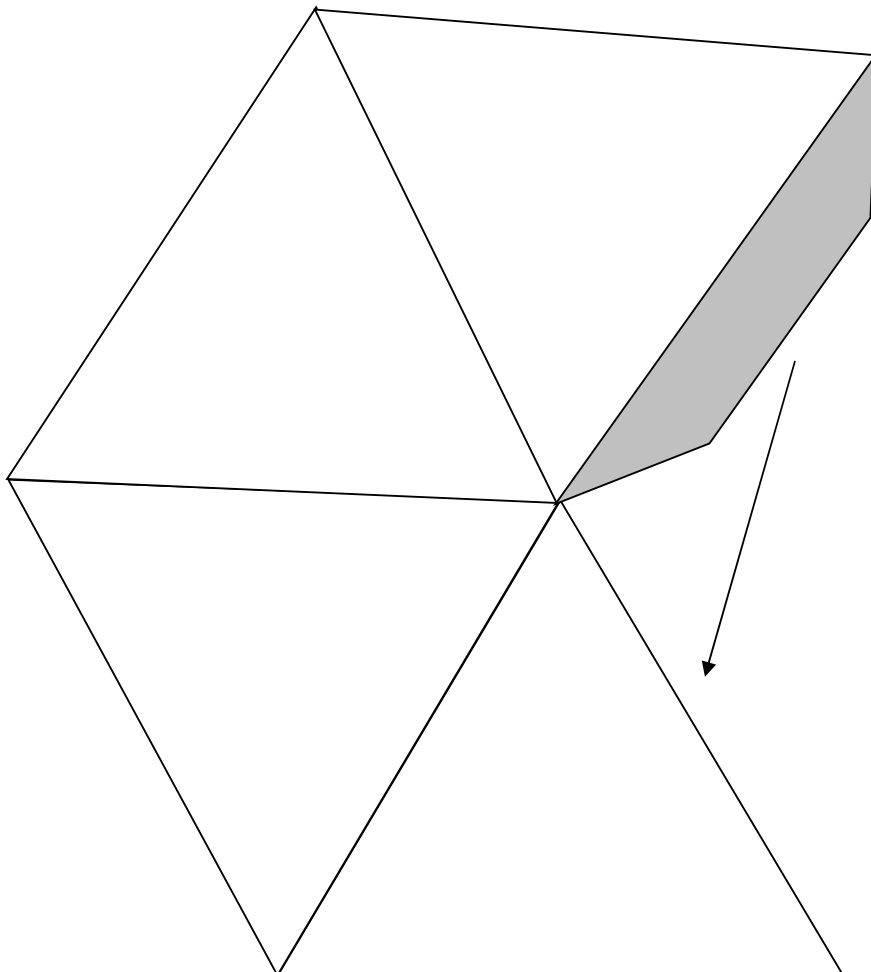
You will need:

- the house and roof templates
- scissors
- glue or double-sided tape
- coloured pencils.

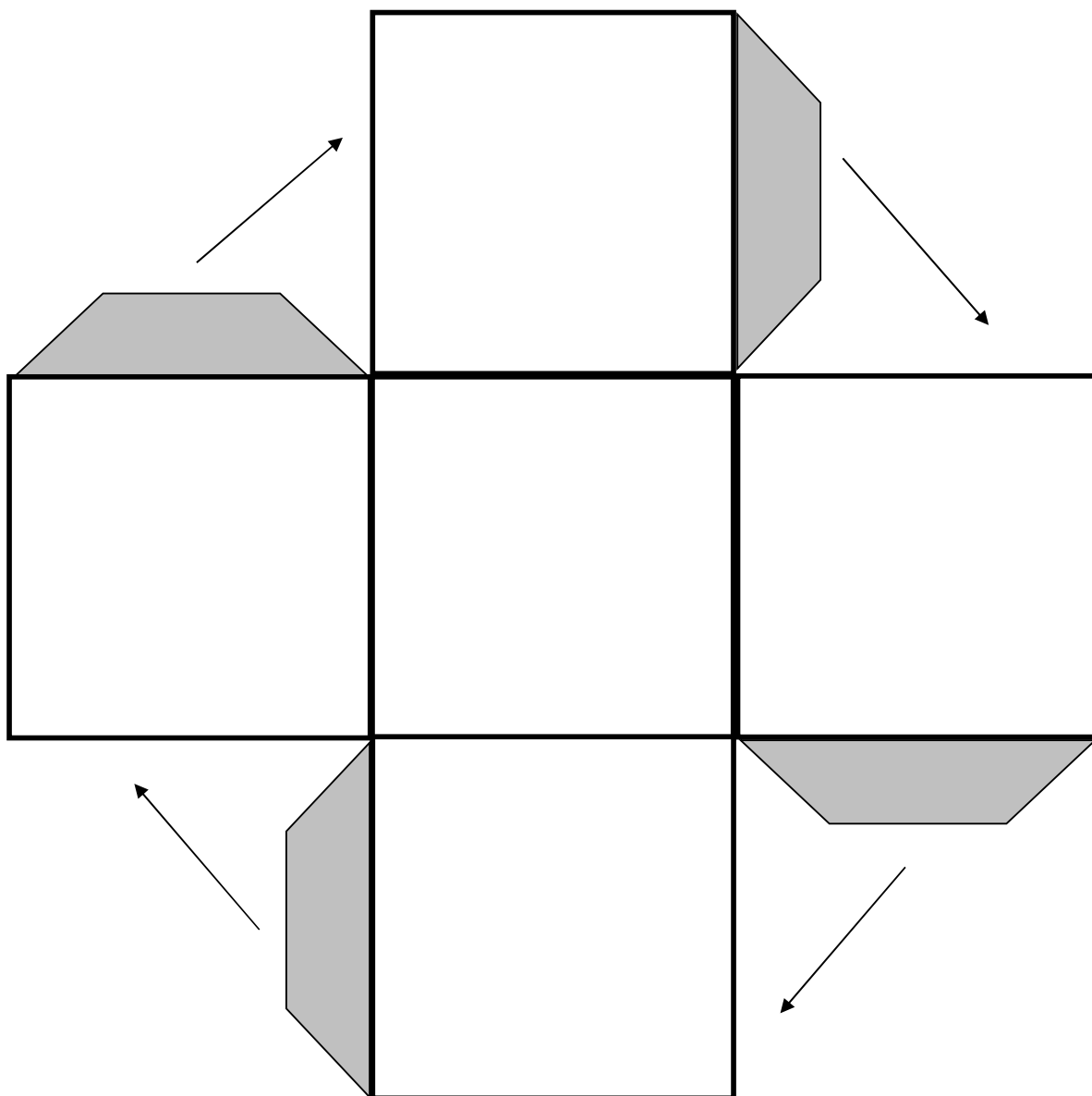


1. Carefully, cut out the house and roof templates.
2. Fold along the lines.
3. Now draw a door, windows and decoration for your roof and house. Remember to plan where to put your doors and windows otherwise they might end up upside down!
4. Stick the shaded tabs to where the arrows are pointing on the roof and house.
5. Place the roof on the house. See if you can blow it off (you might need to hold on to the house at the same time)!

Roof template



House template








Tree house examples






First impressions

<p>How did it make you feel when you first saw it?</p>	<div style="display: flex; justify-content: space-around; align-items: center;">  <div style="text-align: center;"> <h3>My tree house</h3> </div>  </div>	<p>What do you think it would be like to live inside it?</p>
	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Stick your tree house here.</p> </div> </div>	
<p>What materials do you think were used to build it?</p>		

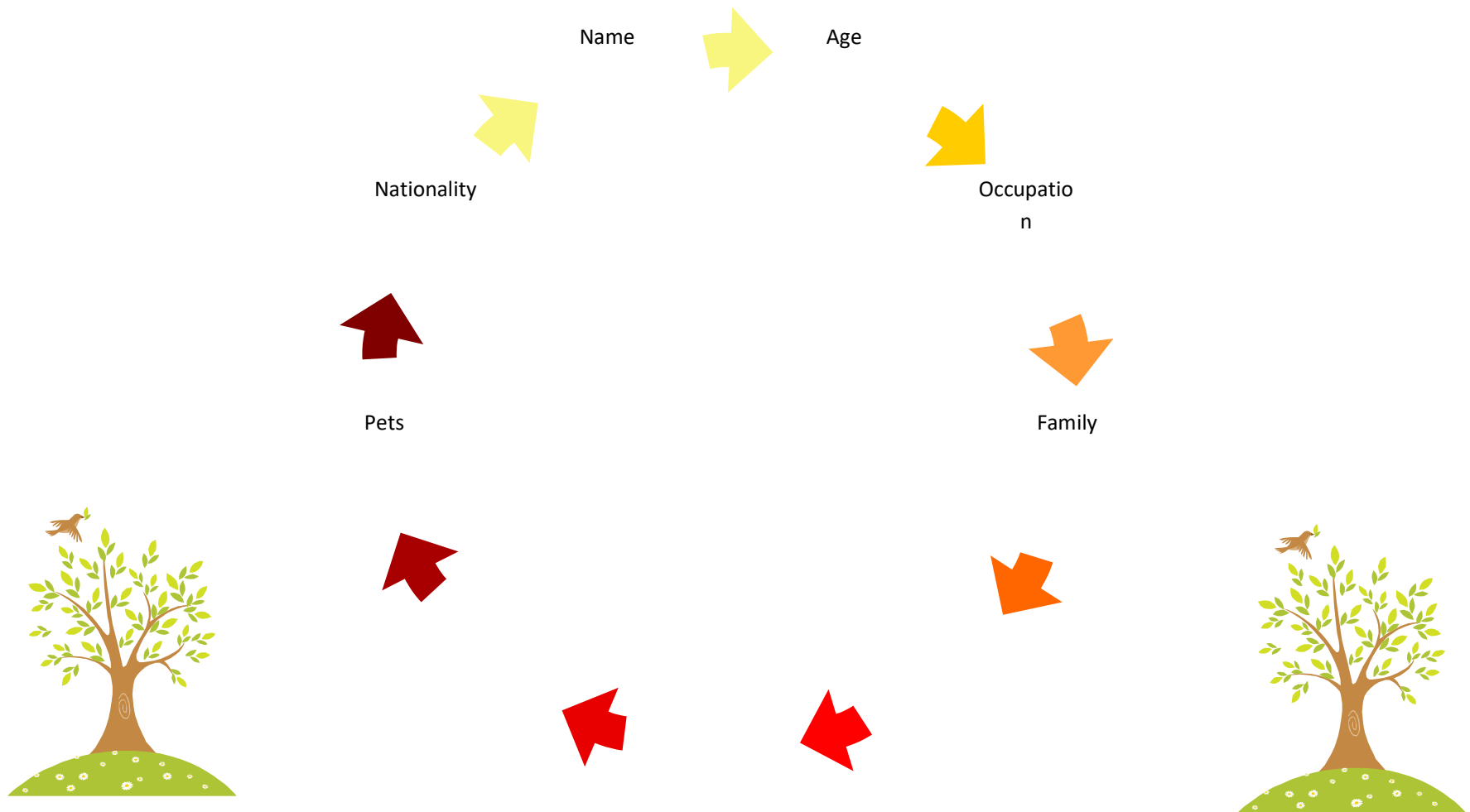


Looking for clues

<p>Why was the tree house built?</p>		
<p>When was the tree house built?</p>	<p> Stick your tree house here.</p>	<p>Where is the tree house?</p>
<p>Who owns the tree house?</p>		<p>What do they do in it?</p>



So who lives in a tree house like this?



Taking a step indoors

Draw your interior design here. Think about the outline shape of your tree house to begin.



Key

Materials used

Photo credits

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Tree-mendous tree houses

Have you ever built a tree house?

Have you ever been inside a tree house?

Well you are about to take a tour around some amazing tree houses.

On the way you will be asked to think about:

Who built them

Why they built them

How they were built

Then you going to think about designing your own.



Click on the bird to move on

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First impressions count!

Take a look at these tree houses.

- How do they make you feel?
- What would it be like to be inside each of them?
- Would you be comfortable?



First impressions count!



First impressions count!



Looking for clues

Look at your tree house example closely to see if you can spot any clues to help you answer the following questions.

Why do you think the tree house was built? As a home? Or just for fun perhaps?

When do you think it was built? Has it been there a long time or is it brand spanking new?

Where do you think the tree house is? In this country or further afield?

Who do you think owns it?

What do they do in it? Play, work etc...

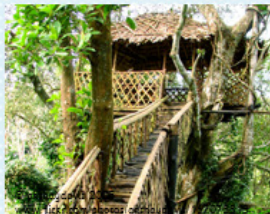


So who does live in your tree house?

You are going to create a character that lives in your tree house.

You will need to consider all of the following to create as detailed a description as you can:

Name
Age
Nationally
Occupation
Family
Pets
Hobbies
Dislikes



Take a step indoors

So what does your tree house look like on the inside?

How many rooms does it have?

What furniture is there? And what is it made from?

Is there running water?

What about electricity?

Is it decorated? What does it look like?

Are there any home comforts?

What about personal belongings?



Draw out an internal plan of your tree house. Remember to include a key and to provide notes on colours and materials used.