

# Explorers

project pack



We're heading off on an adventure!

Science and Geography based teaching ideas and resources



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## Finding your way around the project pack

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This project pack is a cross-curricular collection of creative teaching ideas and resources around the theme of *Explorers*. 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 Geography, Science, Design, and Famous Explorers through history. 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 the [www.teachitprimary.co.uk](http://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](mailto: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 [Explorers Project Pack](#) page on Teachit Primary (please log in to access this!).

## Explorers project pack – Science and Geography based teaching ideas and resources

### *We're heading off on an adventure!*

Finding out about the world we live in need not mean going far afield – even exploring our own backyard often reveals amazing wonders we never knew were there.

Obviously a trip to the Arctic is out of the question, so take a virtual tour around the world with us instead – together we can find out about the people who've seen it, done it! What made them head out into the unknown? What did they discover whilst they were there? All great questions just waiting to be explored.

And why limit ourselves to this world when we have the technology to go beyond into outer space? Discover facts about the planets and those people brave enough to explore the unknown.

Fasten your seat belts – we're heading off on an adventure!



### *Kick things off with an event!*

Begin your adventures by looking at an environment close to home – the school grounds. Create a series of close-up photographs taken around the school and use them as clues for an orienteering event. Puzzling out just where they were taken can prove trickier than it sounds! For older children you could reverse the challenge and ask them to create the photographic clues.



### *Web links*

So that you don't get lost exploring the great expanse of the world-wide web, here are a few sites to help support this project pack:

[Ordnance survey](#) has created this fantastic bank of interactive resources at [Mapzone](#) – a fun way into mapping skills.

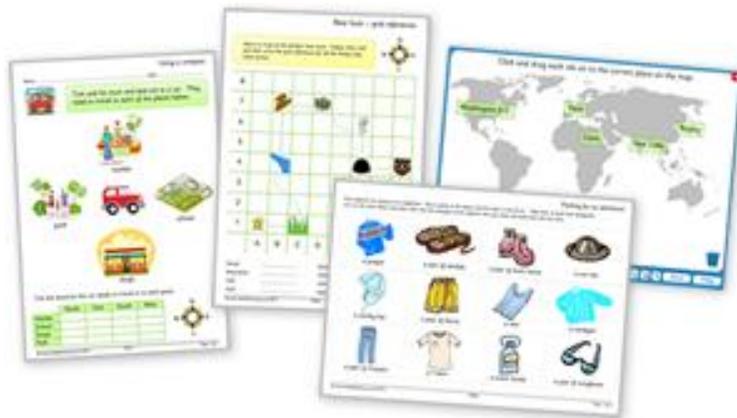
[All about explorers](#) has some great differentiated webquests which promise to deliver everything you ever wanted to know about every explorer who ever lived ... and more!



## Geography

### Heading out into the big wide world

Whether we're heading out on a bona fide expedition or just taking an 'armchair' trip, it's essential not to get lost! As the world is such a big place, it's best to break it down into more manageable pieces. Planning for such expeditions is vital – we need to research as much as we can about our destination before setting out so that we know what to expect when we get there.



### 2014 curriculum links:

#### Geography aims met within this project pack

- Develop contextual knowledge of the location of globally significant places – both terrestrial and marine – including their defining physical and human characteristics and how these provide a geographical context for understanding the actions of processes.
- Children are competent in the geographical skills needed to interpret a range of sources of geographical information, including maps.

## **Key stage 1 subject content covered within this pack**

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### ***Locational knowledge***

- Name and locate the world's seven continents and five oceans.
- Name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas.

### ***Human and physical geography***

- Identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles.
- Use basic geographical vocabulary to refer to:
  - ✓ key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather.
  - ✓ key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop.

### ***Geographical skills and fieldwork***

- Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage.
- Use simple compass directions (North, South, East and West) and locational and directional language [for example, near and far; left and right], to describe the location of features and routes on a map.

## **Key stage 2 subject content covered within this pack**

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### ***Locational knowledge***

- Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities name and locate counties and cities of the United Kingdom.

### ***Geographical skills and fieldwork***

- Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.
- Use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world.

## Teaching ideas

- Introduce the idea of simple route maps as a way of recording a journey from a story, try using well-known stories such as *The Gruffalo* or *We're going on a bear hunt*. Ask children to draw the route the main characters take and the key places they pass on their way. Build on this to create route maps for local journeys that the children are familiar with – even trips around the school can be used as an opportunity to introduce directional language. [Resource 17987: 'Gruffalo grid references'](#) and [resource 17847 'Bear grid references'](#) help demonstrate how to record simple co-ordinates, [Resource 17951 'Follow the route'](#) works well as an introduction to planning and recording children's own routes around the local area.
- Make use of your local area as a teaching resource – the park, the woods, or even a zoo if you're lucky enough to have one close by – as an opportunity to create interactive maps. Take photos, collect objects and record sounds as you go. Using a large bed sheet and plenty of fabric pens, ask the children to draw simple maps to represent your area. Add the laminated photographs and place the objects into feely bags. Then play your sound clips to complete the experience. [Resource 17971 'Using a compass'](#) works well as a simple introduction to compass directions. [Resource 15549 'Barnaby bear in the woods'](#) and [resource 15550 'Exploring the park with Barnaby bear'](#) both provide descriptions of familiar locations for children to create maps from if it's not possible to go out exploring.
- Getting a sense of where we are in the world is tricky – after all it is a vast and diverse place. Dust off your globes and atlases and start to build up the big picture. Start simply by challenging the children to find a selection of symbols used in the atlases and then produce some of their own. [Resource 17994 'Map symbol cards'](#) provides a place to record children's knowledge of different map symbols.
- Plot on a large map places the children have visited on holidays or trips out. If you're lucky enough to have an international link school or pen-pals, plot their locations too. Then add in landmarks, man-made or natural. You could even plot major news events as and when they happen. [Resource 17989 'Exploring the World – cities, natural and man-made landmarks'](#), [resource 17917 'Exploring the world – oceans, continents and countries'](#) and resource [17912 'Exploring Europe – countries, cities and sites!'](#) all help to provide background geographical knowledge to help locate major landmarks, countries and cities.
- Where in the world would you like to go? A great question for gaining an idea of the children's knowledge of the world – will they base their answers on holiday experiences or

will they have been inspired by intrepid Blue Peter explorers to go further afield?

Challenge the children to gather information about their ideal destination to present to the rest of the class. Hold a simple vote to decide on a class destination for the best ever class trip – then all they have to do is to plan the trip! [Resource 10528: 'Super school trips'](#) provides writing tips and prompts to focus ideas for writing about their imaginary trips.

- Packing for any journey is important and a suitcase can reveal a lot about where a person is heading. Pack a couple of suitcases with items which give clues to the traveller's destination – a mosquito net or a pair of thermal gloves give a pretty clear hint! Resource [17806: 'Packing for an adventure'](#) helps children to consider two very different locations prior to packing for their own adventures.
- Animals are adapted to live in their environment whereas explorers have to be equipped to deal with the environment they travel to. Choose an environment and ask the children to create safety rules for prospective explorers to follow. Ask them to include things travellers would need to take with them as well as how they would need to behave whilst there. [Resource: 17970: 'Desert explorers – safety rules'](#) is an ideal introduction activity where children are asked to rank the importance of items an explorer may take with them.
- Turn your classroom into a rainforest, desert or underwater habitat. Ask the children to 'provide' the animals – most have a collection of suitable toys at home. Download sounds to match your environment or record the children creating music to fit the habitat. Then bring out the junk modelling to add the finishing touches. Have an explorers' day where the children come dressed for your chosen destination – a great conclusion to the project.

**Resources to support geography teaching ideas**

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Gruffalo grid references..... 7

Bear grid references..... 9

Follow the route..... 11

Using a compass..... 13

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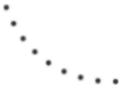
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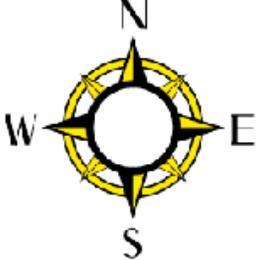
Follow the mouse's trail on the map, then write the grid references for each character and feature.



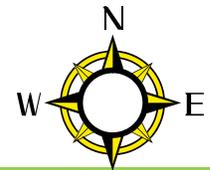
8								Keep out - Gruffalo!
7			.....	.....	.....	.....	.....	
6								
5								
4								
3								
2								
1								
	A	B	C	D	E	F	G	H

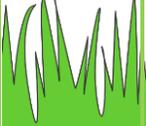
character/feature	letter	number

character/feature	letter	number

8								Keep out - Gruffalo!	 
7									
6									
5									
4									
3									
2									
1									
	A	B	C	D	E	F	G	H	

Here is a map of the family's bear hunt. Follow their trail and then write the grid references for all the things they come across.



8								
7			.....					
6		.....			.....			
5		.....				.....		
4							.....	
3		.....						
2			.....					
1		.....						
	A	B	C	D	E	F	G	H

house .....

long grass .....

river .....

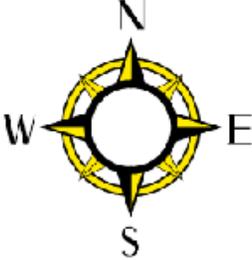
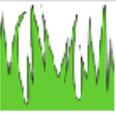
mud .....

forest .....

snowstorm .....

cave .....

bear .....

8									 
7									
6									
5									
4									
3									
2									
1									
	A	B	C	D	E	F	G	H	

Follow the directions to see where they lead you.  
Remember to use the key and the compass to help you.

- 1. Start at the house and head north.  
Go east at the school.  
At the junction, go straight on.  
Head north at the hospital.  
Head west at the post office.  
Head north at the rail station.



I am at the .....

- 2. Start at the wind farm and head south.  
Turn left at the first road.  
Go straight on at the crossroads.  
Turn right at the post office.  
Carry straight on until you see the building on your right.

I am at the .....



- 3. Write directions to help someone go from the museum to the house.



.....

.....

.....

.....



- 4. Write directions to help someone from the school to the picnic area.

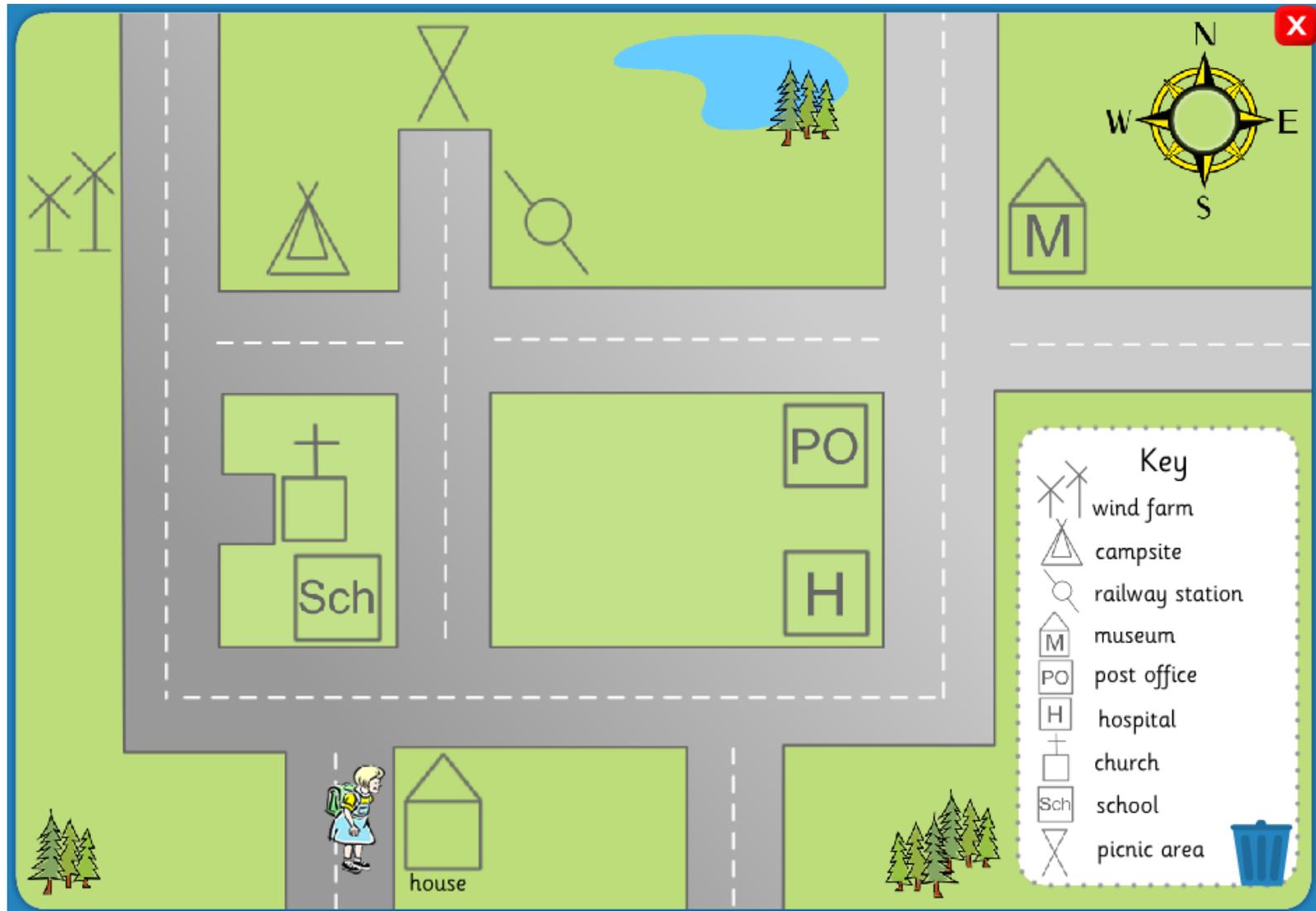


.....

.....

.....

.....



Name: .....

Date: .....



Tom and his mum and dad are in a car. They need to travel to each of the places below.



market



park



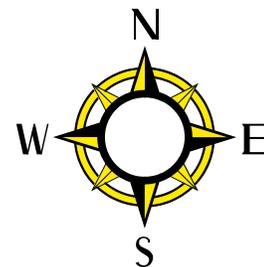
school



shops

Tick the direction the car needs to travel in to get to each place.

	North	East	South	West
Market				
School				
Shops				
Park				





## *Barnaby Bear in the woods*

Barnaby bear decided to visit his cousin in Manchester. His cousin is called Kim.

Kim had a great idea. 'Let's go to the woods!' she said. Barnaby loved the woods and couldn't wait to go.

'I know,' said Barnaby, 'while we are there we could play a game of I spy'.

'That sounds good,' said Kim, 'let's spy things beginning with B!'

So, Kim and Barnaby set off for the woods. They took a camera and a packed lunch.

The first thing they came across was a bed of bluebells. Barnaby took a photograph for his album.

Next Kim noticed a bench. 'We can sit on the bench and have our packed lunch', she said.



But first, she took a photograph of the bench for Barnaby's album.

After lunch, Kim and Barnaby took a walk around the lake. They saw lots of birds. Barnaby took these pictures.



Kim and Barnaby looked around for something else beginning with **B** in the woods. There were lots of bugs. There were bees and ladybirds, ants and a butterfly. Barnaby took some snaps.



Next, Barnaby noticed a wall. 'I think that wall is made of brick,' said Barnaby, 'I'll take a picture of it.'

'That's not a very exciting picture!' said Kim. Kim thought she saw a buttercup, 'That will make a better picture,' she said.

Barnaby was tired of this game but he wanted to take one more picture. 'I will just take a photo of those beech trees,' he told Kim, 'then I think we need to go home!'

Barnaby and Kim decided to go to bed for a nap when they got home. They both agreed that it had been a great day in the woods!





Barnaby Bear was visiting his cousin. His cousin is called Kim.

Kim had a great idea. 'Let's go to the park!' she said.

Barnaby loved the park and couldn't wait to go.

'I know,' said Barnaby, 'while we are there, we could take some photographs for my album.'

'That sounds great,' said Kim, 'let's look for things that *move* in the park.' So, Kim and Barnaby set off for the park.

They took the camera and two cans of cola in case they got thirsty. Kim had some money for ice creams.

Kim saw a roundabout. 'That moves,' she cried, 'it goes round and round. First they had a ride and then Barnaby took a photograph for his album.'



Kim spotted some swings. 'Will you push me Barnaby?' she asked. Barnaby agreed. They took turns on the swing.

'Swings go up and down!' said Kim. 'Take a picture Barnaby.'

Barnaby took a picture for his album.



Kim and Barnaby drank their cola. Then they looked for more rides in the park.

Barnaby saw some children playing on a seesaw. He took a picture for his album.



'That goes up and down too!' said Kim.

Kim and Barnaby looked around for something else in the park that moved. There were lots of children running around and a dog chasing a ball. Barnaby took some snaps.



Next, Barnaby and Kim noticed a boy riding a bike. ‘That boy is making the bike move,’ said Kim, ‘he is using the pedals.’

‘That will make a super picture.’ said Barnaby. ‘The pedals go round and round, just like the roundabout.’



Barnaby and Kim decided to have an ice cream. ‘That will make a lovely picture,’ said Barnaby. Kim wanted to know if an ice cream moved. ‘It will melt if you don’t eat it,’ said Barnaby, ‘and then it will drip!’

It was time to go home. Barnaby and Kim were tired. Barnaby and Kim decided to watch T.V in Kim’s room. They had seen lots of things that move.

They remembered the swings, the bike, the seesaw and the dog chasing the ball. Oh and the dripping ice cream!

They both agreed that it had been a great day at the park!

Name: .....

Date: .....



See if you can solve the clues to list the things that Barnaby saw moving at the park.

Barnaby saw something going round and round.

It was the .....

Barnaby saw something going up and down.

It was the .....

Barnaby saw something else going round and round.

It was the .....

Barnaby saw someone running.

It was .....

Barnaby saw something chasing.

It was .....

Barnaby saw someone riding a .....

Name: .....

Date: .....

Draw a map of the park using the symbols to help you.

		Key
		Roundabout
		Swings
		See-saw

Think about the other equipment you may see at a park. Add your ideas to the map. Don't forget to draw in the symbols to your key.

Use an Ordnance Survey map to find out what the symbols are for these features and buildings. Draw them on to the symbol cards.

motorway

footpath

cycle trail

parking

information centre

telephone

cliff

bus station

castle

Create your own symbols to use for features you may find in and around your school. Draw them on to the symbol cards.

toilets	library	classroom
playground	school office	hall
quiet area	sports field	computer suite



Label the landmarks with the name of the country in which they are found. Draw an arrow to show each location on the map.

Niagara Falls

.....

Uluru

.....

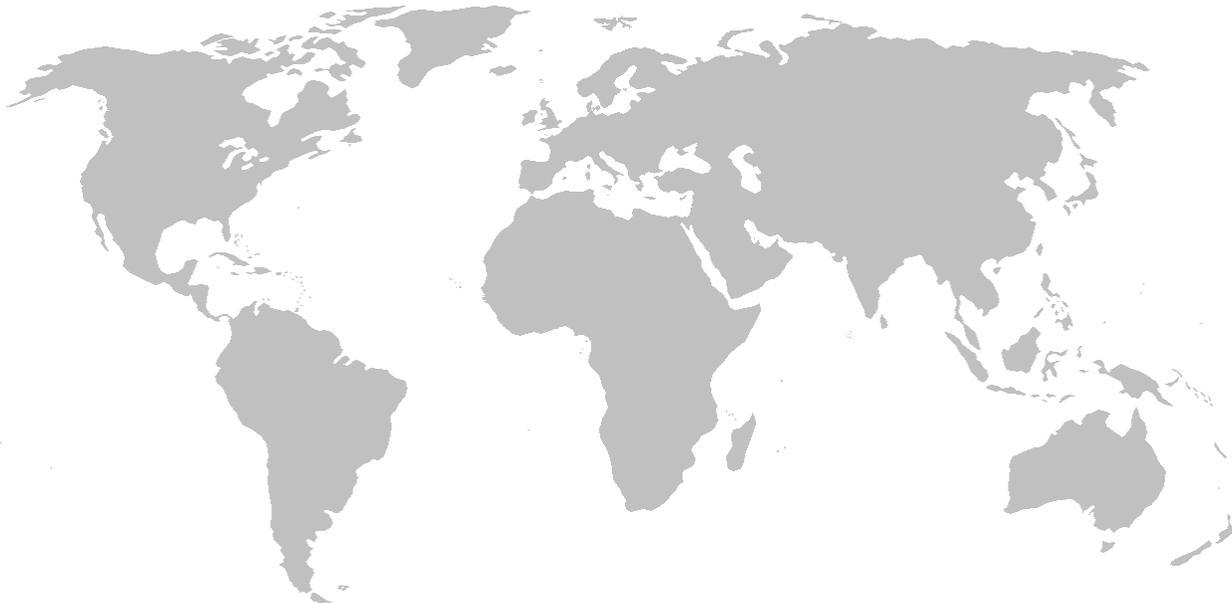
River Nile

.....

The Himalayas

.....

.....



© commons.wikimedia.org

Grand Canyon

.....

Amazon Rainforest

.....

Sahara Desert

.....

Great Barrier Reef

.....

.....

Use an atlas to find the location of two more World famous natural landmarks. Mark their locations on the map.



Click and drag each tile on to the correct place on the map.

Nairobi   Ottawa   Canberra   Beijing   Washington D.C.   Cairo

London   Buenos Aires   Brasilia   Wellington   Paris   New Delhi

Click and drag each tile on to the correct place on the map.



Sydney Opera House   Taj Mahal   Golden Gate Bridge   Christ the Redeemer statue   The Pyramids   The Eiffel Tower

Niagara Falls   Angel Falls   The Alps   Grand Canyon   Gobi Desert   Sahara Desert   River Nile

Amazon Rainforest   Uluru (Ayers Rock)   The Rocky Mountains   The Himalayas   Victoria Falls





Draw arrows to show the locations of the oceans and continents.

## Continents

North  
America

South  
America

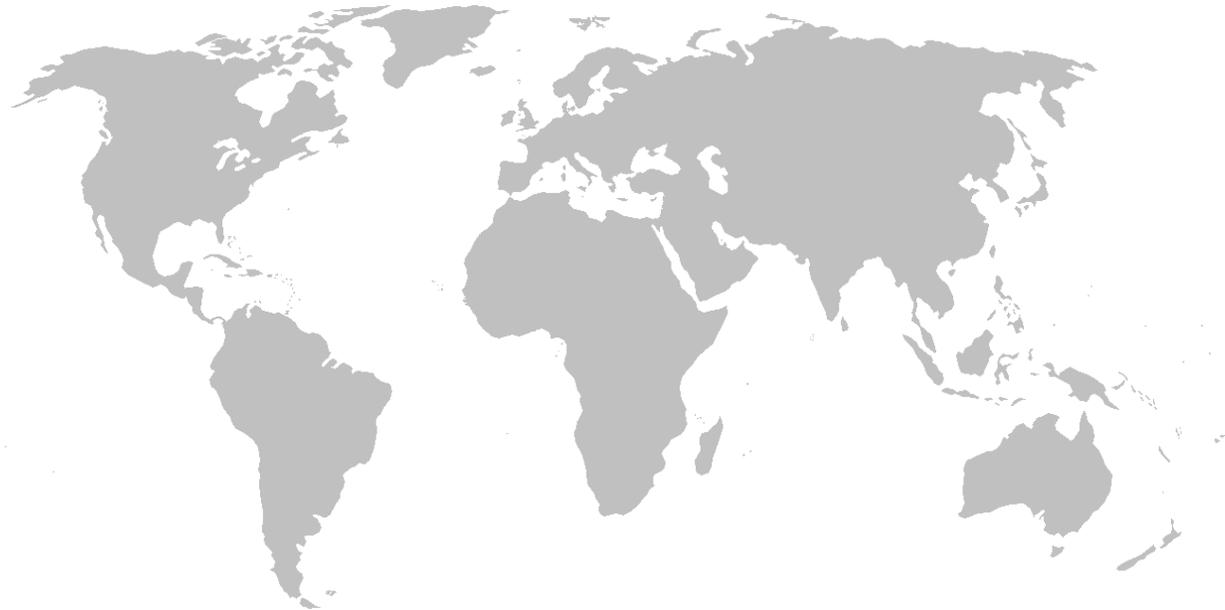
Europe

Africa

Asia

Antarctica

Australasia



## Oceans

Atlantic

Pacific

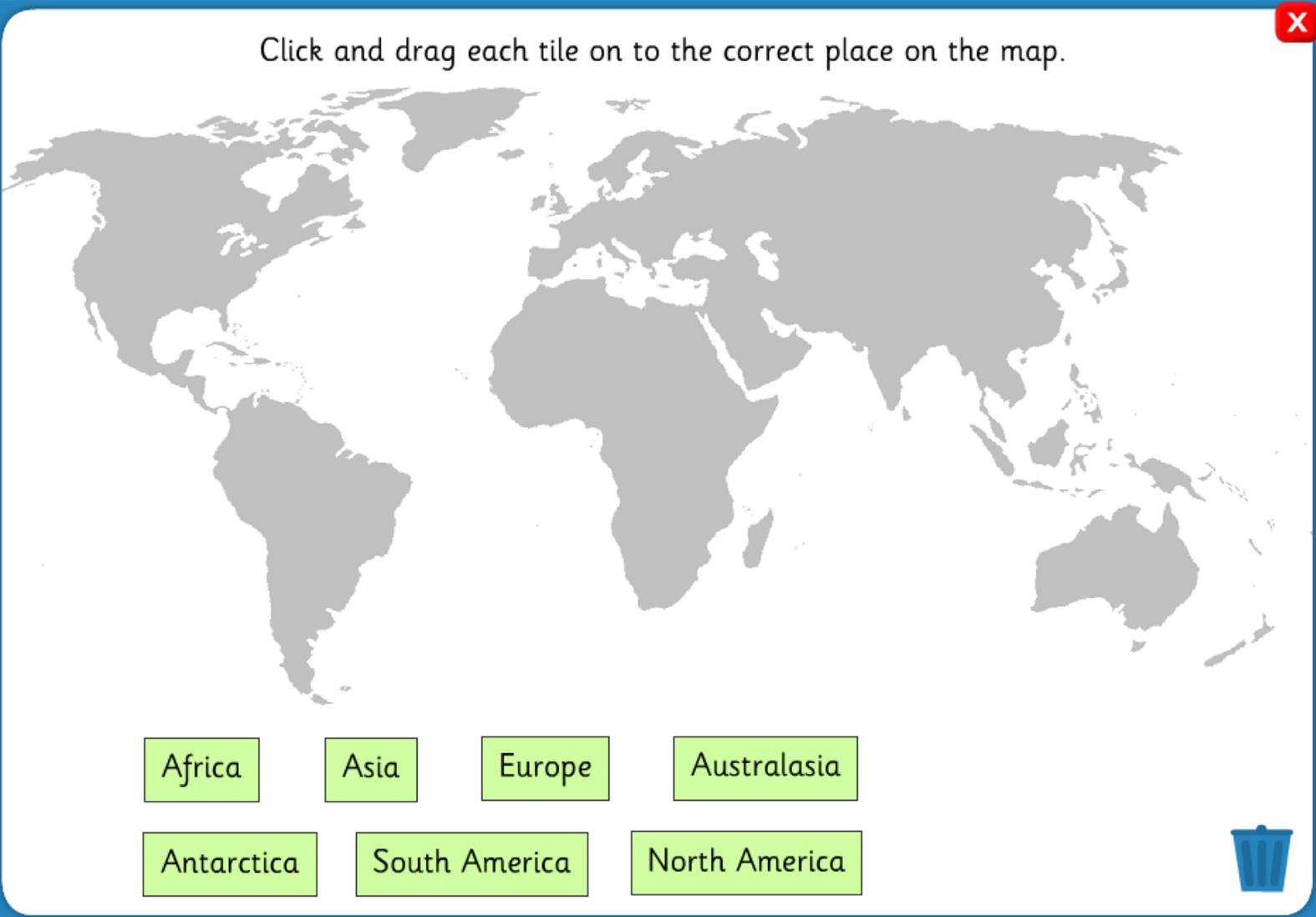
Indian

Arctic

North sea

Mediterranean

Click and drag each tile on to the correct place on the map.



Africa    Asia    Europe    Australasia

Antarctica    South America    North America

**Magnet** Click and drag each tile on to the correct place on the map.

Indian Ocean      Pacific Ocean      Atlantic Ocean

Arctic Ocean      Mediterranean Sea      North Sea

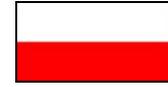
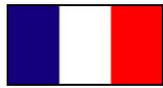
**Magnet** Click and drag each tile on to the correct place on the map.

Canada United Kingdom USA China Russia India

Argentina Australia Kenya Brazil Egypt New Zealand



Label the flags with the name of the country they represent. Draw an arrow from each of the flags to the location of their country on the map.





Label the landmarks with the name of the city in which they are found. Draw an arrow to show each location on the map.

La Segrada Familia

.....

The Houses of  
Parliament

.....

Belvedere Palace

.....

The Coliseum

.....

St Basil's Cathedral

.....



Anne Frank's house

.....

The Little Mermaid

.....

The Parthenon

.....

Brandenburg Gate

.....

The Eiffel Tower

.....

Name: .....

Date: .....



Use an atlas of Europe or the Internet to find the location of these natural landmarks.

Create a simple key to label the map.

The Matterhorn	White Cliffs of Dover	Mount Etna
Moselle Valley	River Seine	Fjords
The Urals	The Pyrenees	The Alps
		Lapland

Now find three more natural landmarks and mark their location on to the map. Remember to add them to your key.

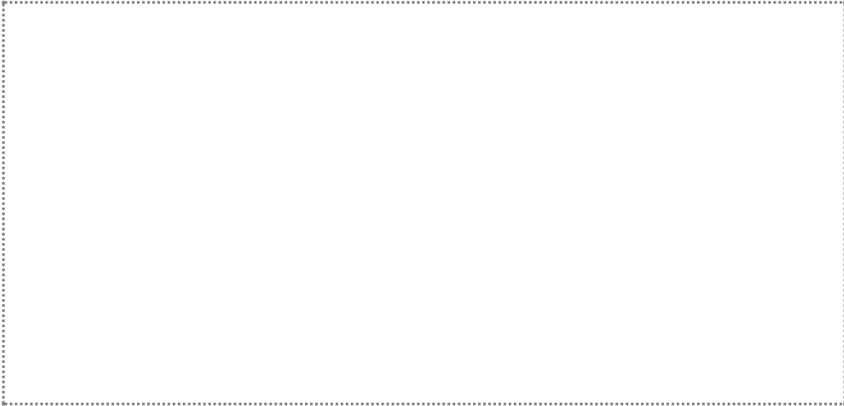
Natural landmark key	
The Matterhorn	White Cliffs of Dover
Moselle Valley	River Seine
Urals	Pyrenees
Lapland	Fjords
Alps	Mount Etna



## European country fact files



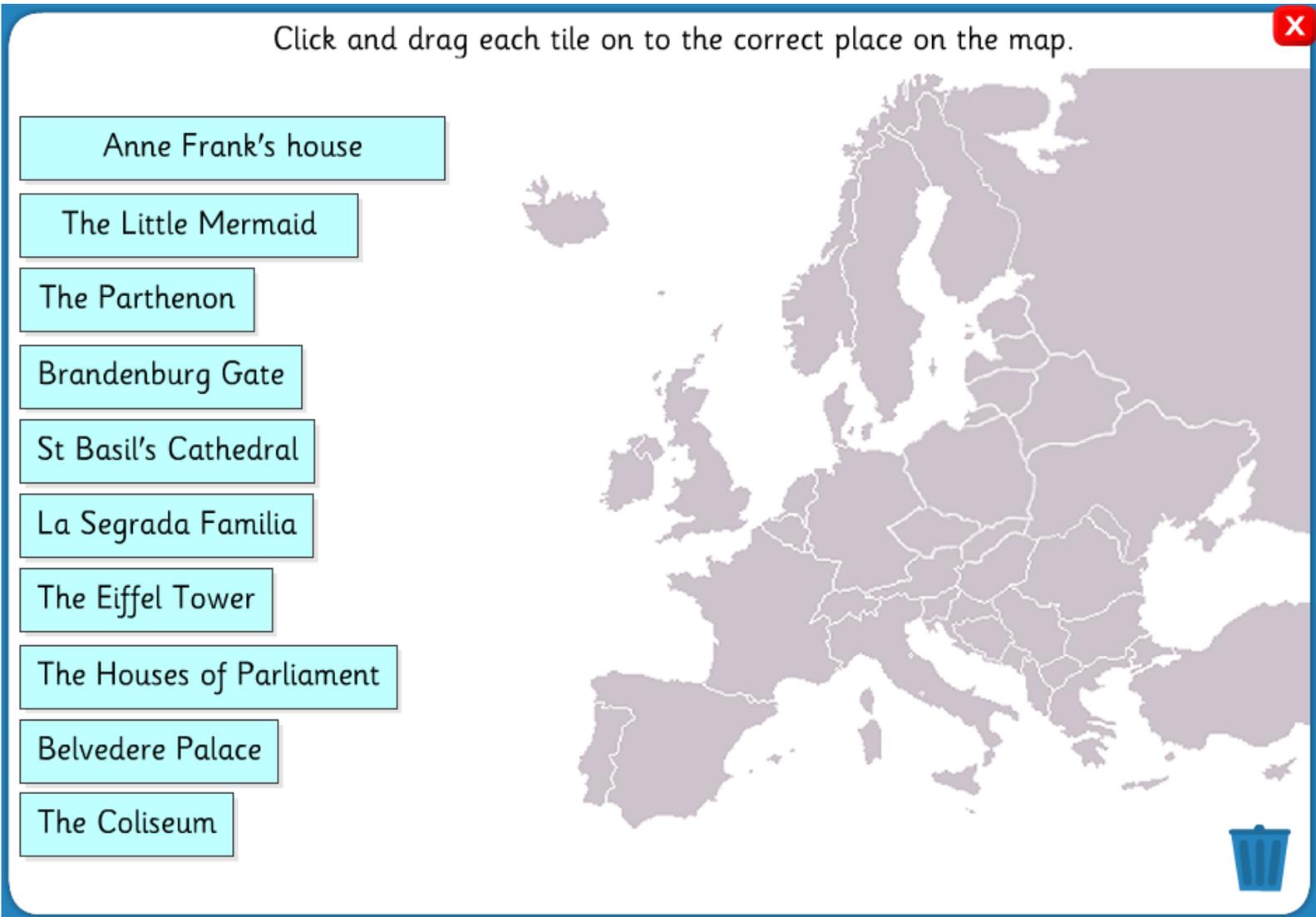
Using an atlas, a globe and the Internet, choose a European country and find out facts about the country to complete a fact file. Now select another country to create another fact card. Compare your cards to see which other countries were chosen.

Fact file	Fact file
Country .....	Country .....
Flag	Flag
	
Capital city: .....	Capital city: .....
A natural landmark: .....	A natural landmark: .....
A manmade landmark: .....	A manmade landmark: .....

**Magnets** Click and drag each tile on to the correct place on the map.

The map shows the outline of Europe with country borders. To the left of the map, there are eight tiles with the following country names: Norway, Finland, Russia, Portugal, Denmark, Sweden, Ireland, and Greece. To the right of the map, there are eight tiles with the following country names: UK, Spain, France, Italy, Austria, Germany, Switzerland, and Poland. A trash can icon is located at the bottom right of the map area. A red 'X' icon is in the top right corner of the activity frame.

Click and drag each tile on to the correct place on the map.



Anne Frank’s house

The Little Mermaid

The Parthenon

Brandenburg Gate

St Basil’s Cathedral

La Segrada Familia

The Eiffel Tower

The Houses of Parliament

Belvedere Palace

The Coliseum

A map of Europe is shown on the right side of the interface. The map is light purple with white outlines for countries. A red 'X' icon is in the top right corner of the map area, and a blue trash can icon is in the bottom right corner.

**Magnet** Click and drag each tile on to the correct place on the map. ✕

- The Matterhorn
- Moselle Valley
- Urals
- Lapland
- Alps
- White Cliffs of Dover
- River Seine
- Pyrenees
- Fjords
- Mount Etna



### It's up to you...

All you have to do is to decide where, when, who, how and why!

You choose the location, you choose the time, how long you want to stay and who will be going with you (a group, a class, or a year group). We cater for all sizes of groups.

This should be your school trip of a lifetime so make it a choice to remember. With new government sponsorship, all students have the chance to take part in at least one trip per school year.

Well, what are you waiting for? All of us at Super School Trips look forward to hearing from you.

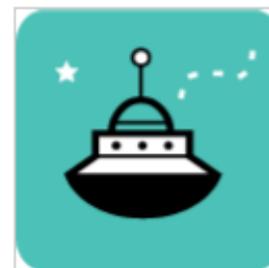
#### Terms and conditions.

Super School Trips are not responsible for any injuries or damage caused on trips. Super School Trips will endeavour to return all students to school although this cannot be guaranteed. Super School Trips have **no plans** to return to the Jurassic ages for the foreseeable future.

### Writing tasks

- Plan out your dream trip. Use the headings to help you draw up an itinerary or outline of your trip.
  - ✓ Where do you want to go?
  - ✓ Why do you want to go there?
  - ✓ Who will you go with?
  - ✓ When will you go and for how long?
  - ✓ What will you need to take?
  - ✓ Will the trip be at all dangerous?
  - ✓ What precautions will you take?
  - ✓ What will you learn?
- Write the letter to parents outlining the details of the school trip.
- You have been on a Super School Trip. Write a report for the school newsletter describing your trip.
- Write an email about your trip to a friend. Remember you can be chatty and tell the truth about what really happened!
- Write your diary about the trip. *(Similar to the email but include your thoughts and feelings)*
- Your school trip did not go well. Write a letter of complaint to Super School Trips or to Watchdog. (You will need to be inventive about the list of things that went wrong.)

# Super School Trips



Imagine a school trip like no other



### Super School Trips - what we offer ...

Super School Trips are pleased to offer you a chance to go on the school trip of a lifetime. We can promise you:

- learning will never be the same
- no more climbing on board a bus
- no more returning to the same old tired places.

Go on a school trip where you really will see something new and exciting. Go on a school trip you'll be talking about for years!

We are a new company and launched last year. We can offer you a school trip like never before. You might have done school trips before - the usual round of theme parks, museums, historical centres, and theatres. Very occasionally you might have been offered the opportunity to stay somewhere overnight or go on a more exotic trip abroad.

But haven't you ever wanted something more - something different and new?



Well, with Super School Trips, the only limit is your imagination. Using the most modern, groundbreaking technology, we can offer transportation to wherever you want to go in the past.

Any time, any place, any location. Yes, we can take you **anywhere** in the past you want to visit!

Think this sounds more science fiction than science fact? Well you're wrong!

It might sound incredible and hard to believe but Super School Trips are running trips now and changing the face of school trips for ever.

At the moment, you might be studying Shakespeare in your English lessons. Instead of sitting in a classroom reading his play, why not go and see it performed at the Globe?

Want to see where Stanley Yelnats dug holes? Or would you prefer a walk around Kissin' Kate's Wild West Green Lake?



For the daring amongst you, perhaps a visit to Dracula's castle is in order?

As a class, you might have studied Dickens. Why not walk the streets of London and see the realities of Victorian life for yourself?

Fancy a ride alongside Chaucer and his Canterbury Pilgrims?

These are just a few. There are many more places you can visit and see for yourself. So let us bring the past to life for **YOU!**

Whatever your dream, whatever the time and date, we can make it happen.

Imagine the moment when you step out and see for yourself exactly what it is you have been reading about.

Imagine a school trip like no other.

**Imagine where you could go ...**



Two explorers are going on an expedition. One is going to the desert and the other to the Arctic. Help them to pack their backpacks. Cut out the items below and place them into the backpack of the explorer who you think will need each item the most.



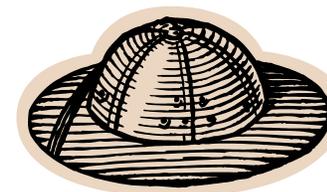
a jumper



a pair of sandals



a pair of snow boots



a sun hat



a woolly hat



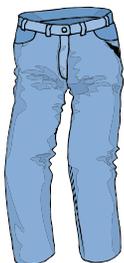
a pair of shorts



a vest



a cardigan



a pair of trousers



a T-shirt



a water bottle



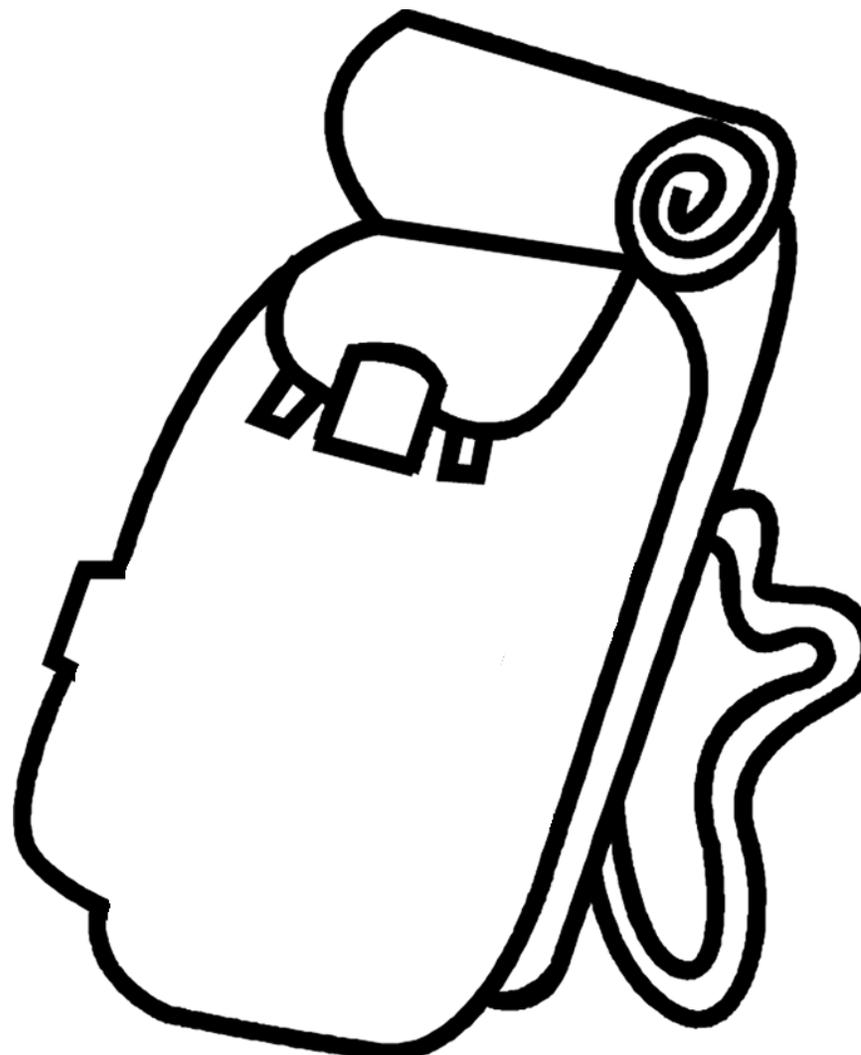
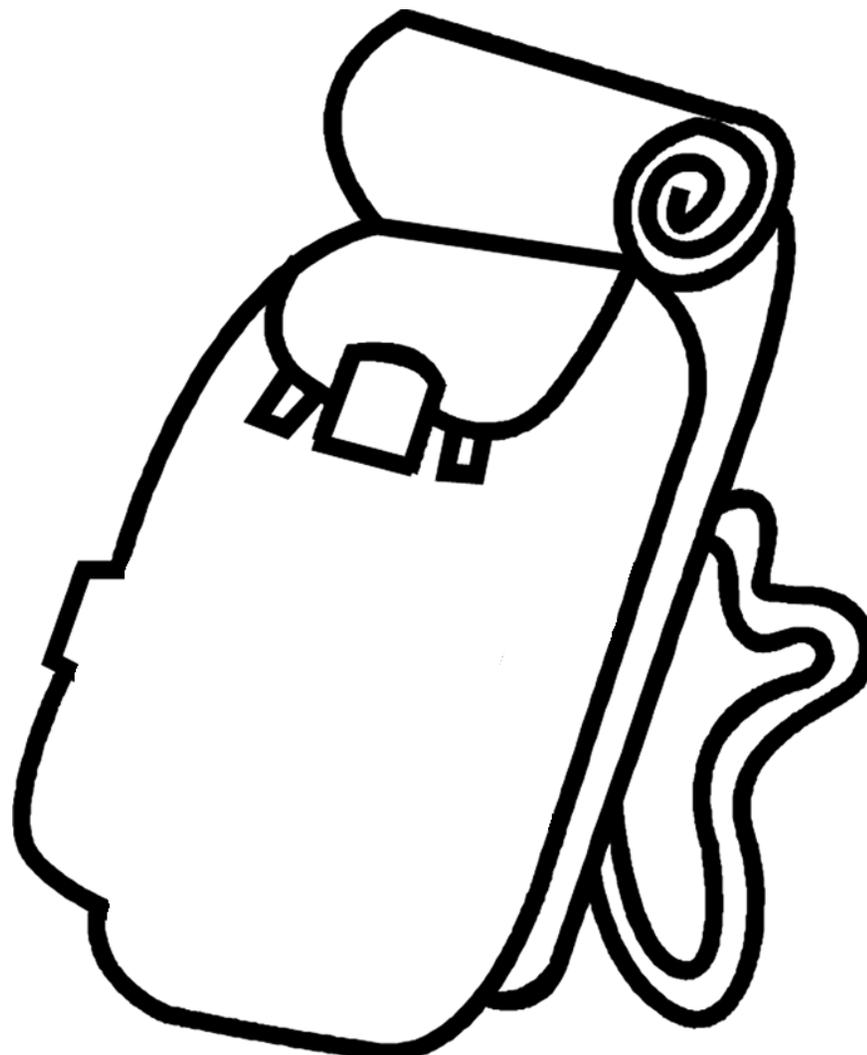
a pair of sunglasses

Name: .....

Date: .....

Arctic explorer's backpack

Desert explorer's backpack





What else do you think the explorers should take with them?

Think about what the weather will be like where they are travelling to and also what special equipment they might need to take with them. Draw and label your items. Then cut them out and add them to each explorer's backpack.

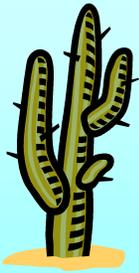
Arctic explorer	Arctic explorer	Desert explorer	Desert explorer
Arctic explorer	Arctic explorer	Desert explorer	Desert explorer
Arctic explorer	Arctic explorer	Desert explorer	Desert explorer

Pack the backpack for each explorer.

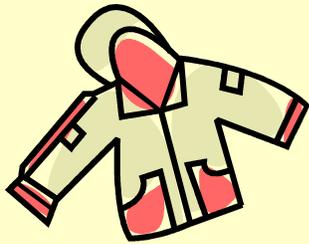
Arctic

Desert

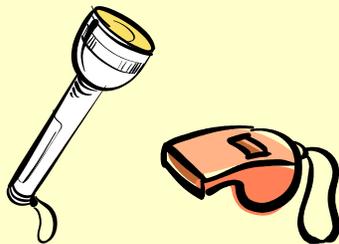
The image shows an interactive activity for packing a backpack. At the top, the text reads "Pack the backpack for each explorer." Below this, there are two backpacks. The left one is labeled "Arctic" and the right one is labeled "Desert". Both backpacks are white with a blue strap and a red roll of fabric on top. Below the backpacks is a row of 12 items, each with a small square icon below it for selection. The items are: sunglasses, a hat, sandals, a water bottle labeled "WATER", a sweater, a t-shirt, boots, shorts, a long-sleeved shirt, pants, a tank top, and a trash bin.



Here are some safety rules for exploring the desert. Cut out the cards and place them in order of importance on the 'Diamond 9' sheet, putting the most important rule at the top.



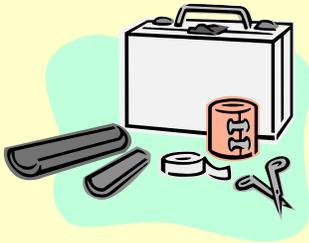
Dress in layers.



Take a torch and a whistle.



Take and drink lots of water.



Take a first aid kit.



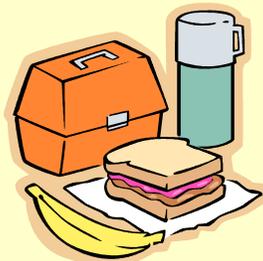
Don't put your hands or feet in places where you can't see them.



Wear a sunscreen.



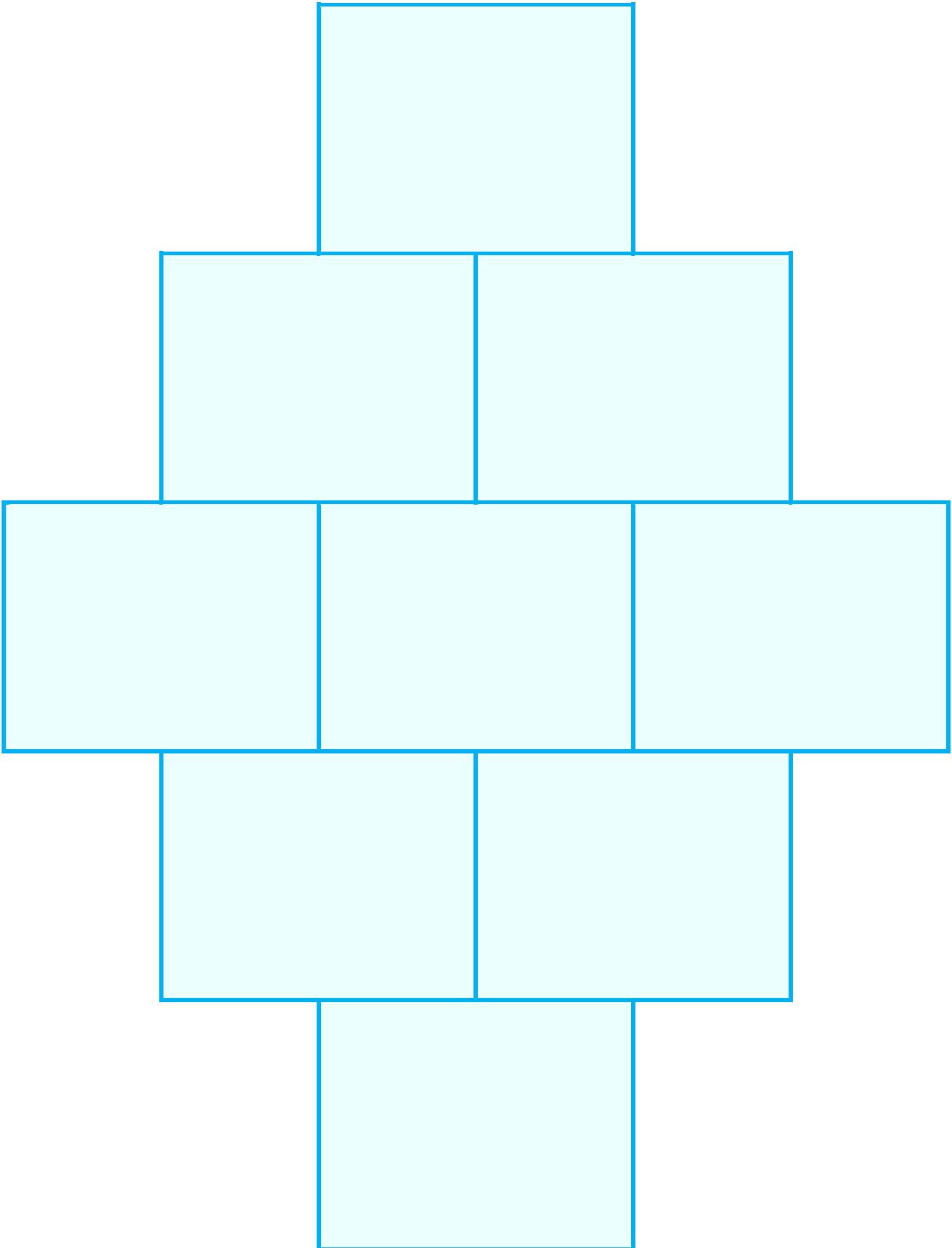
Wear strong shoes or boots.



Take along healthy snacks.



Don't stray too far from your car/transport.



Here are some safety rules for exploring the desert. Rank them in order of importance, with the rule you think is most important at the top.

Don't put your hands or feet in places where you can't see them.

Wear a sunscreen.

Dress in layers.

Don't stray too far from your car/transport.

Take a first aid kit.

Take a torch and a whistle.

Take and drink lots of water.

Wear strong shoes or boots.

Take along healthy snacks.

## Science

### The weird and the wonderful

One of the thrills of exploring is discovering the wildlife – even uncovering a woodlouse hidden under a log is cause for excitement! So take a look at local habitats and contrasting ones from far-flung corners of the world to discover which animals live there and how they survive. Of course we're not just limited to this planet; we've the whole solar system to explore!



### 2014 curriculum links:

#### Science aims met within this project pack

- To develop **scientific knowledge and conceptual understanding** through the specific discipline of biology.

#### Science KS1 subject content covered within this pack

##### **Animals:**

- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.

- Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- Describe and compare the structure of a variety of common animals.

***Living things and their habitats:***

- Explore and compare the differences between things that are living, dead, and things that have never been alive.
- 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.
- Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.

**Science KS2 subject content covered within this pack**

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***Living things and their habitats:***

- 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.
- Recognise that environments can change and that this can sometimes pose dangers to living things.

## Teaching ideas

- Take a look at a selection of animals from different environments: woodland, rainforest, polar, desert, sea, and then ask the children to consider how the animals are best suited to each specific environment. Create animal maps by simply printing off blank maps and adding an animal key to show where we would find them. [Resource 17867: 'Where would I see ...?'](#) works well as introduction to this activity. [Resource 17809: 'A trip around the world – explorers notes and photographs'](#) encourages children to organise their ideas and provides a structure to the activity.
- Gather together a selection of photographs and, if possible, objects from around the world – these could be natural or man-made. Ask the children to sort them into possible regions of the world they could have come from. This can be done as a simple sorting tray activity for younger learners.
- Use a collection of toy animals to sort them onto a large world map to show where in the world we would find them – cuddle toys or plastic animals work well. Then take a look at the types of animals that live in the same location and produce fact cards about them including: live cycles, diet and habitat information. [Resource 17807: 'Life cycle of a penguin' demonstrates how to construct a simple life cycle.](#) [Resource 17810: 'Sea-animal matching'](#) provides a template for recording ideas.
- One of the ways animals survive is by using the natural environment as camouflage – consider the stick insect, for example. Find out which animals use camouflage and link this to the place in which they live. Create colourful camouflage pictures by copying animal prints using paints, pastels or pencil crayons on large sheets of paper, and then cut the paper in half. From one half of the paper cut out the animal shape and then glue it to the other half – hey presto, a hidden creature! [Resource 15224: 'Habitats and adaptation'](#) and [resource 16038: 'Exploring contrasting habitats'](#) provide background information. [Resource 17808: 'Animal adaptation'](#) provides a template to help children record their ideas.
- The world's oceans are still a very much undiscovered area of our planet – in fact we know more about space than we do about our deepest oceans. Take a closer look at some of the weirdest sea creatures to get an idea of just how alien they can be – the anglerfish and sea cucumber, for instance. Challenge your children to

design their own deep-sea creature – bearing in mind the harshness of the environment in which they live, how would they survive? For younger learners use a selection of sea creature pictures and ask the children to create their own creature collages – watch out for some interesting results! [Resource 15531: 'Design your own animal'](#) helps children to develop their ideas.

- The mysteries of the solar system are slowly being revealed by the use of unmanned probes reaching out into the unknown. Discover facts about the other planets to see how they compare with our own. Create papier-mâché models of the planets in our solar system by using balloons and tissue paper. Then add fact cards to hang from each to make a three-dimensional display. [Resource 17846: 'Ordering the planets'](#) and [resource 15219: 'Earth, Sun and Moon research pack'](#) provide background information to support this activity. [Resource10714: 'Solar system'](#) provides a template to present children's ideas.
- Is there life out there? Find out about each of the planets and discuss if life could exist there. What features would an alien need to survive on any one of the planets? We need air and water to survive, but they may not. Design an alien to suit each of the planets. Create dioramas of each planet and add in the plasticine 'aliens' to live there.

**Resources contained within the Science section of this project pack**

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A trip around the world – explorer notes and photographs ..... 54

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Sea-animal matching..... 61

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Animal adaptation..... 75

Design your own animal ..... 79

Solar system ..... 91

Ordering the planets ..... 94

Earth, sun and moon research pack ..... 98



Two explorers set out on adventures. One went to the Arctic and one to the desert but which animals did they see?  
Cut out the animals and stick them on to the chart.



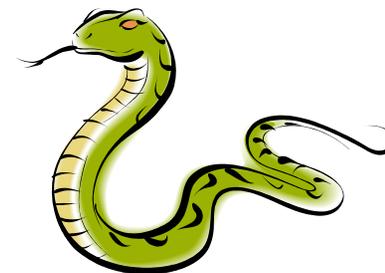
a snowy owl



a camel



a lizard



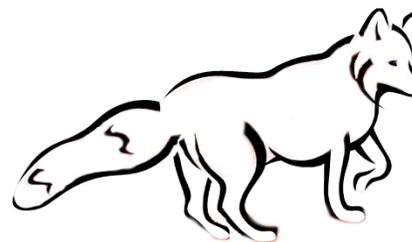
a snake



a seal



an ostrich



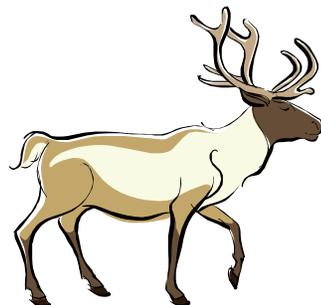
an Arctic fox



an armadillo



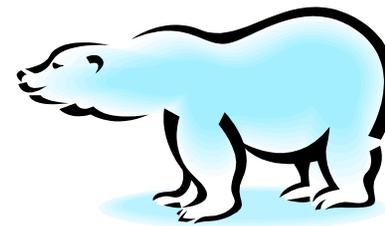
a whale



a reindeer



a scorpion



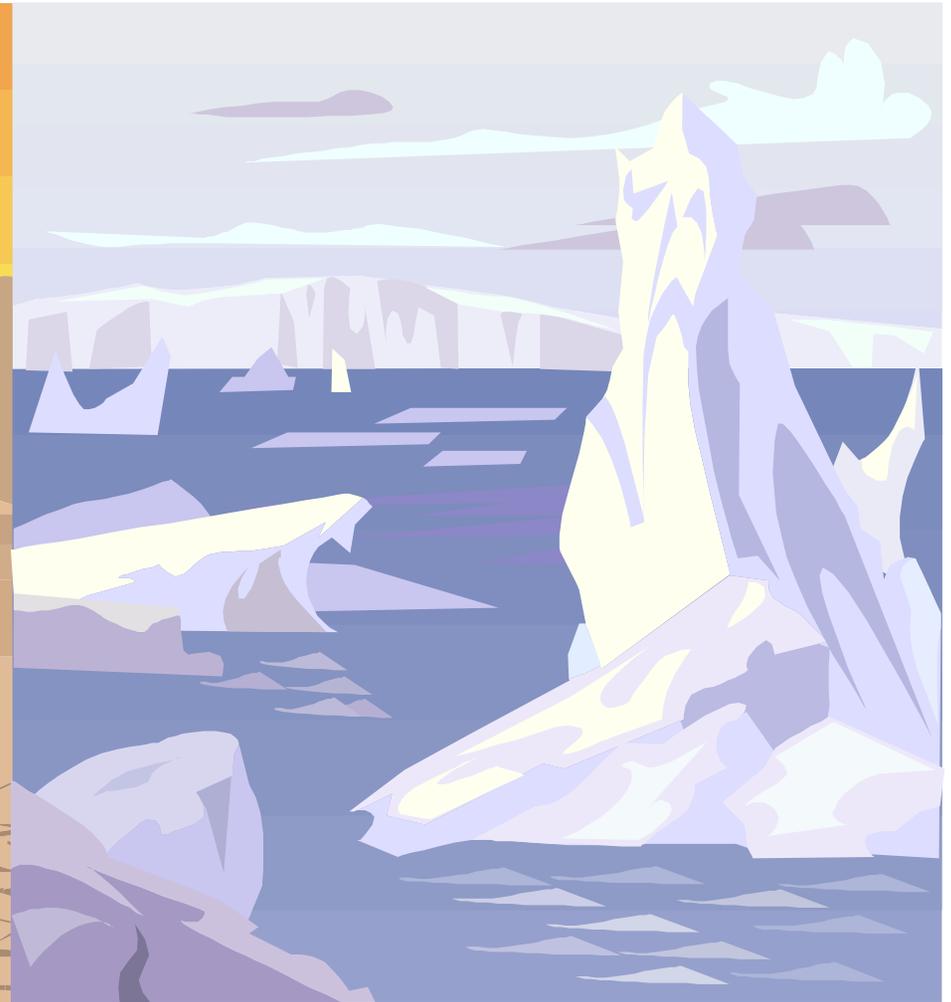
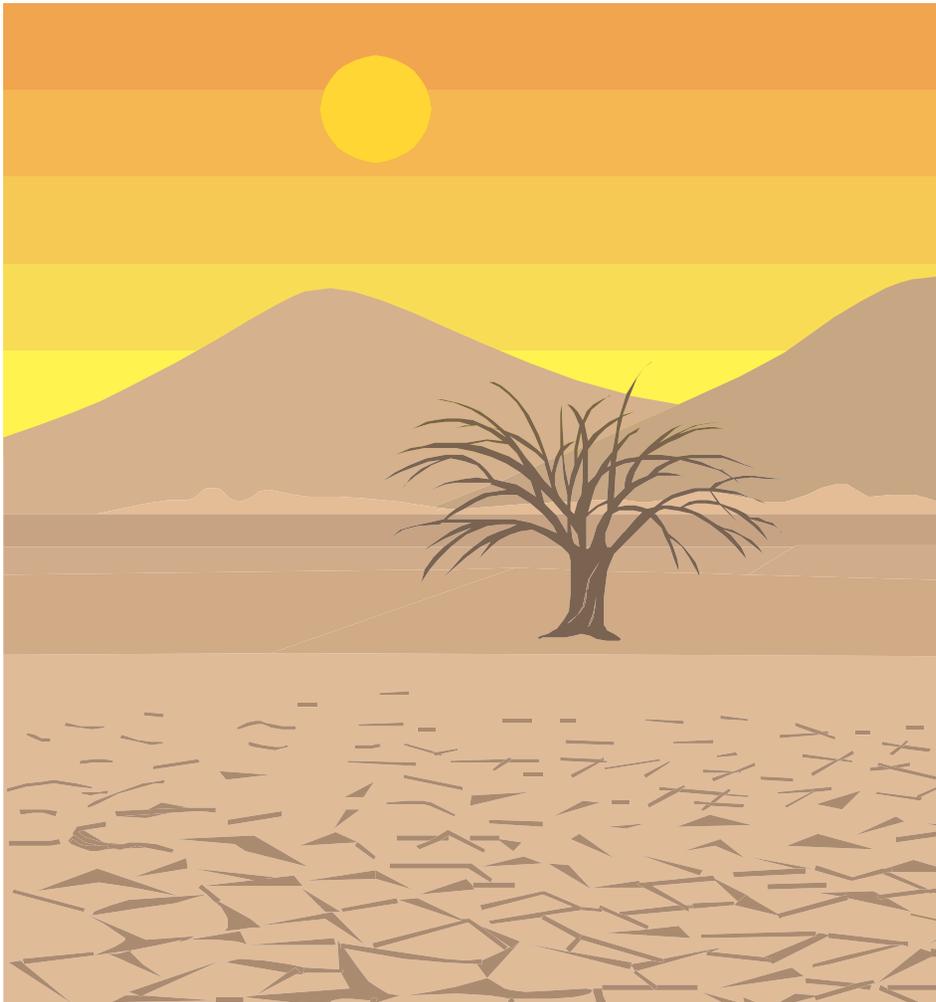
a polar bear

Name: .....

Date: .....

## The desert

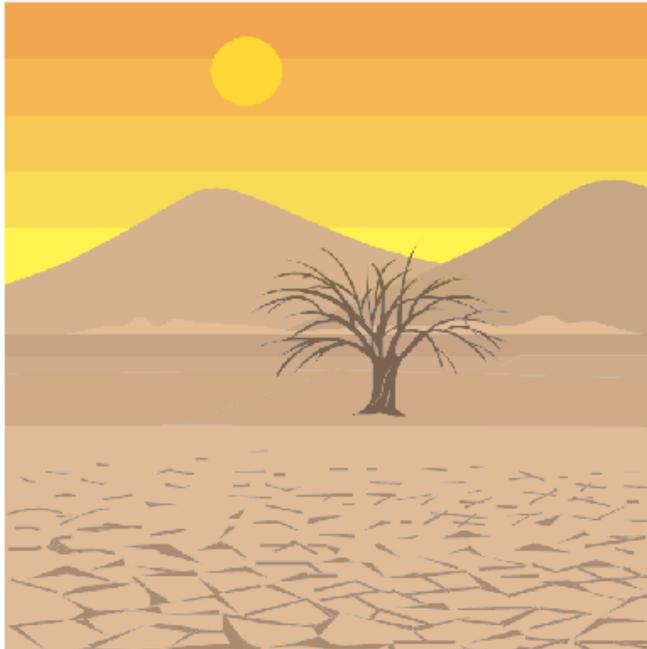
## The Arctic



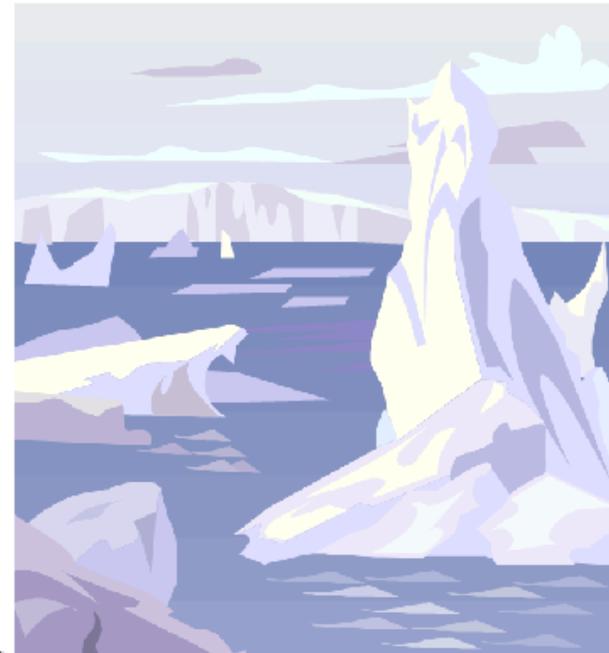
Where would you find me ... in the Arctic or in the desert?



The desert



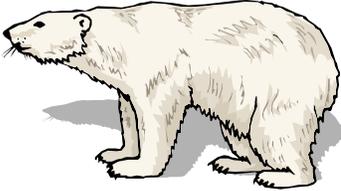
The Arctic





Imagine you are an explorer. You have been on trips to the rainforest, the desert and the Polar Regions, but your photos of the animals and your notes about each place have got mixed up.

Cut and stick the animal photographs and notes into the correct columns.

Many animals are white and furry.	Many animals are brightly coloured.	It is very cold
Many animals are light coloured.	It is green and lush.	It is very hot.
It is very wet.	There is lots of snow and ice.	It is sandy and very dry.
toucan 	camel 	spider monkey 
scorpion 	jaguar 	sloth 
penguin 	meerkat 	polar bear 
snowy owl 	arctic fox 	sidewinder snake 

# A trip around the world: explorer notes and photographs

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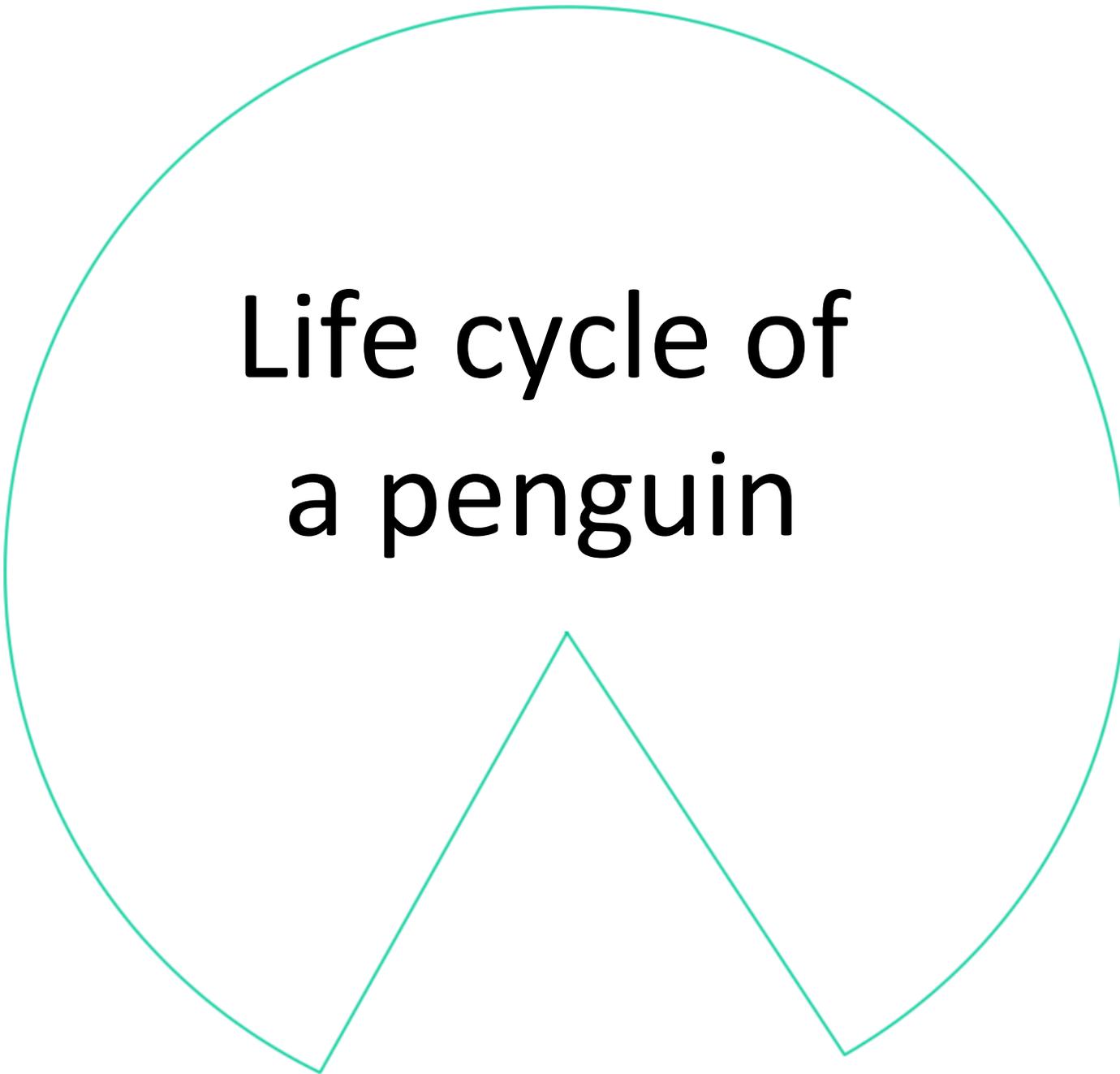
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Date: .....

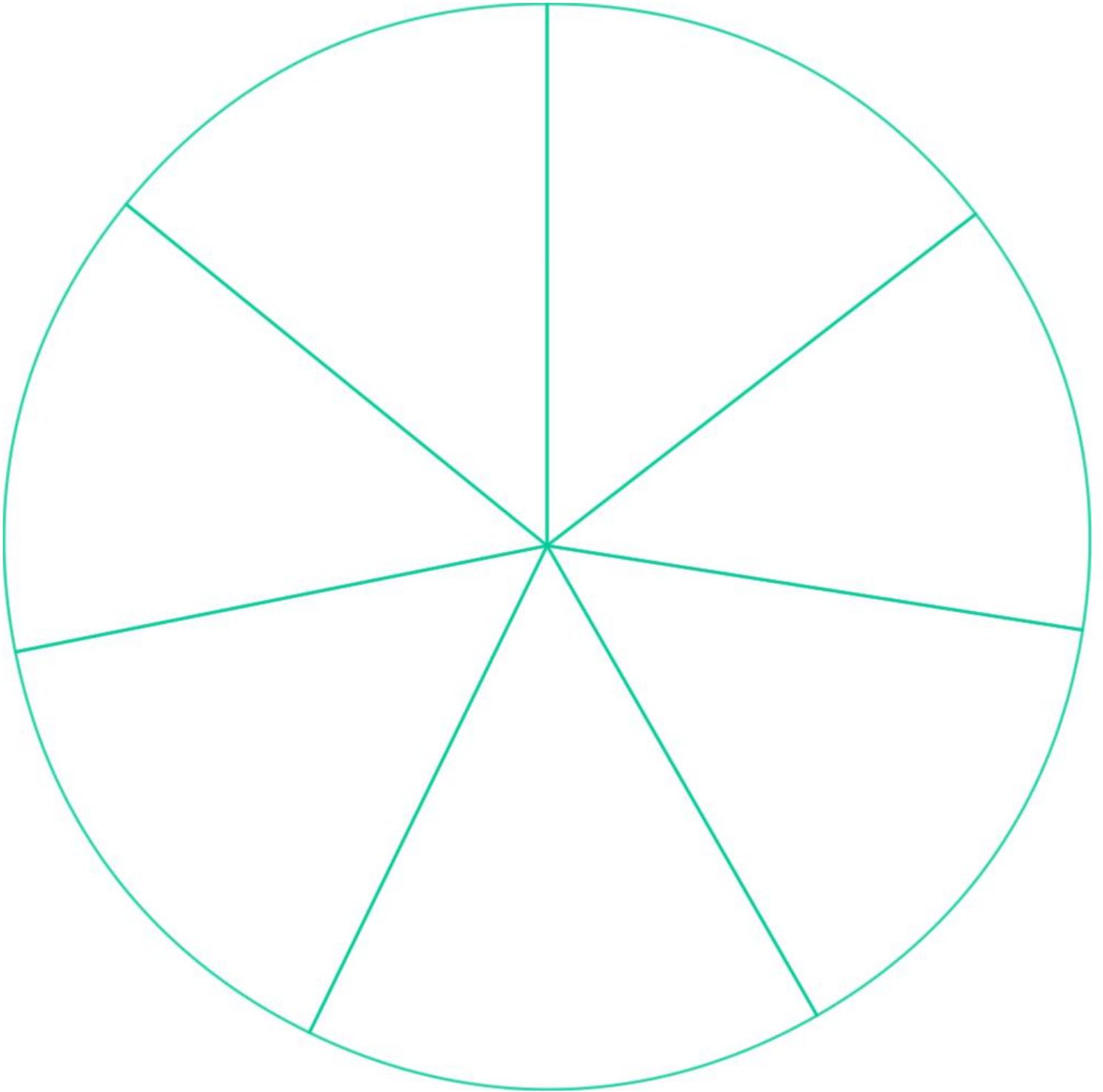
Desert	Polar Regions	Rainforest

How to create a life cycle wheel:

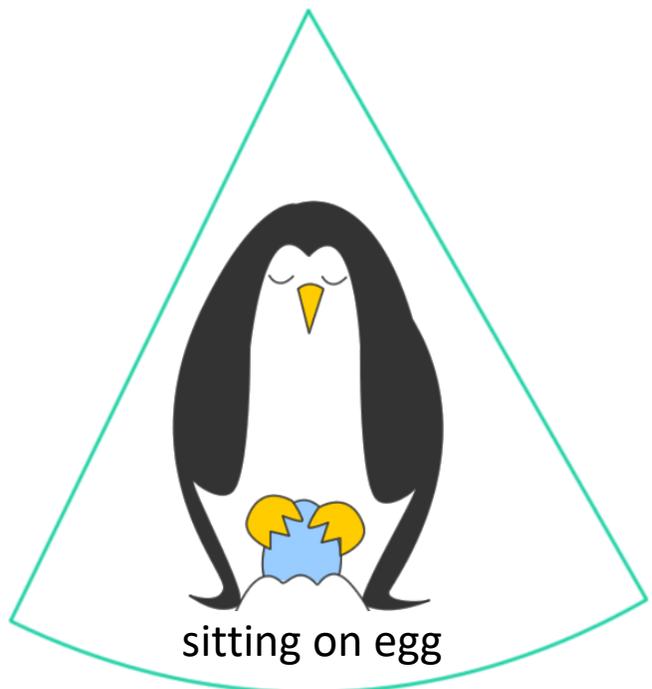
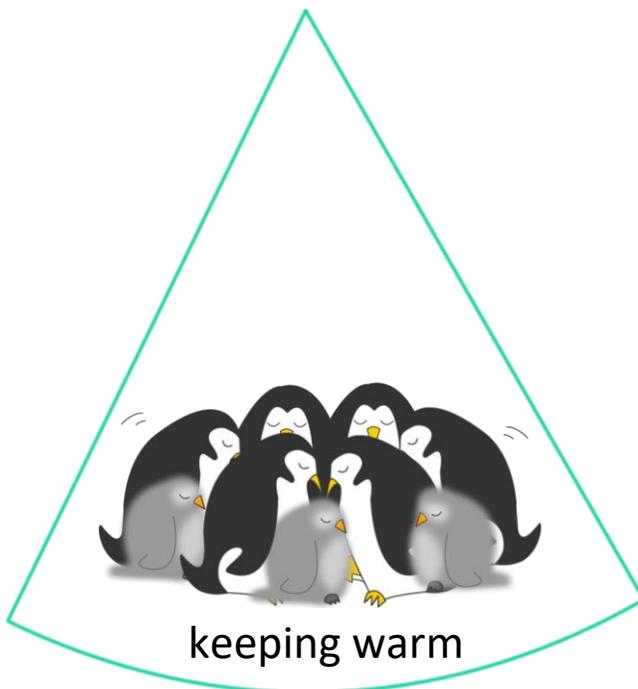
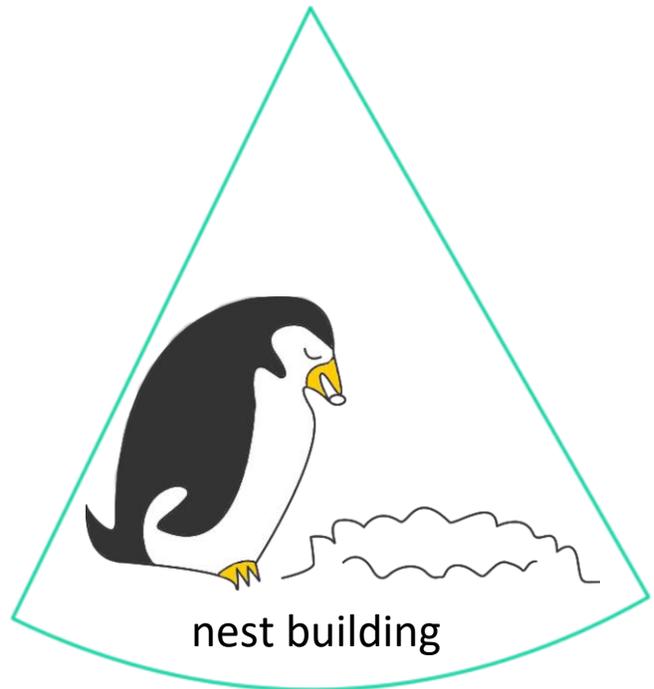
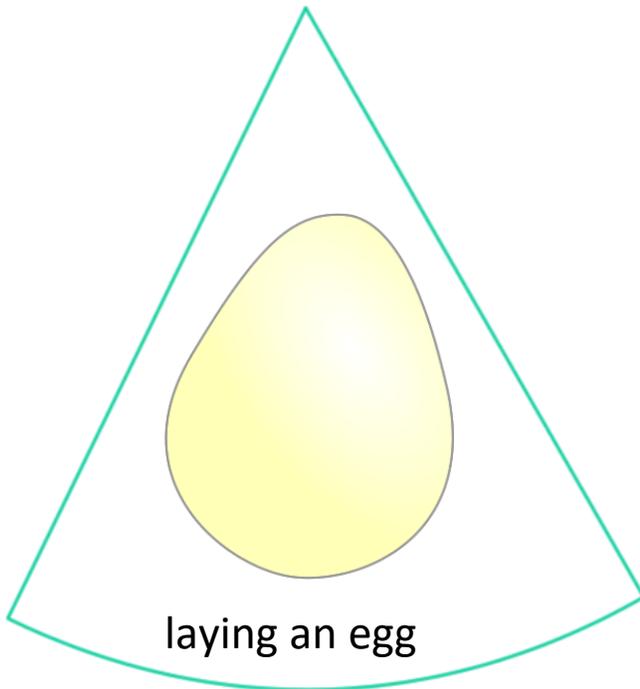
- Print the life cycle cards onto card and cut out.
- Cut and stick the images in order on to the back of the 'life cycle' wheel.
- Colour the front cover.
- Attach the front cover to the life cycle sequence with a brass paper fastener.

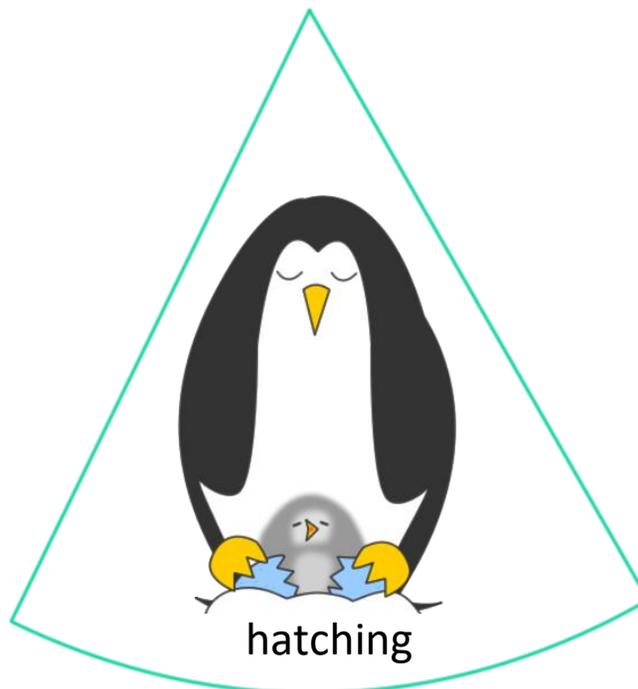
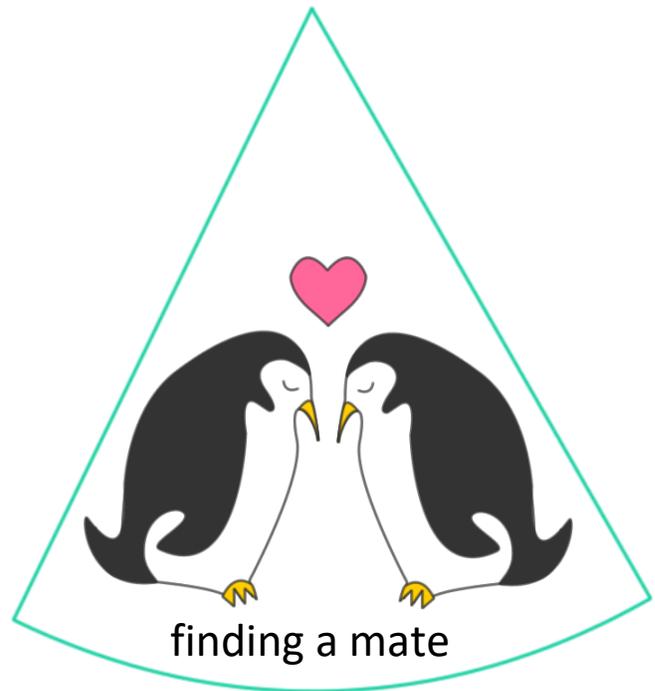
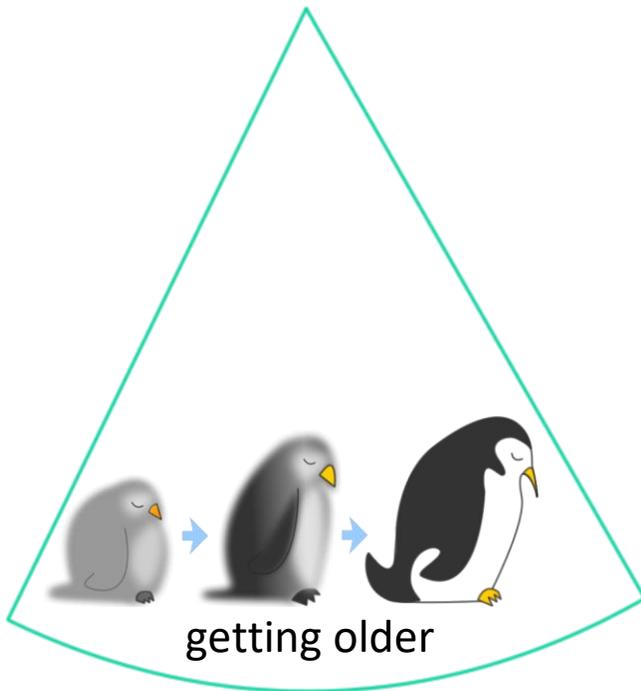


# Life cycle of a penguin



Cut and stick the pictures on to the life cycle wheel.

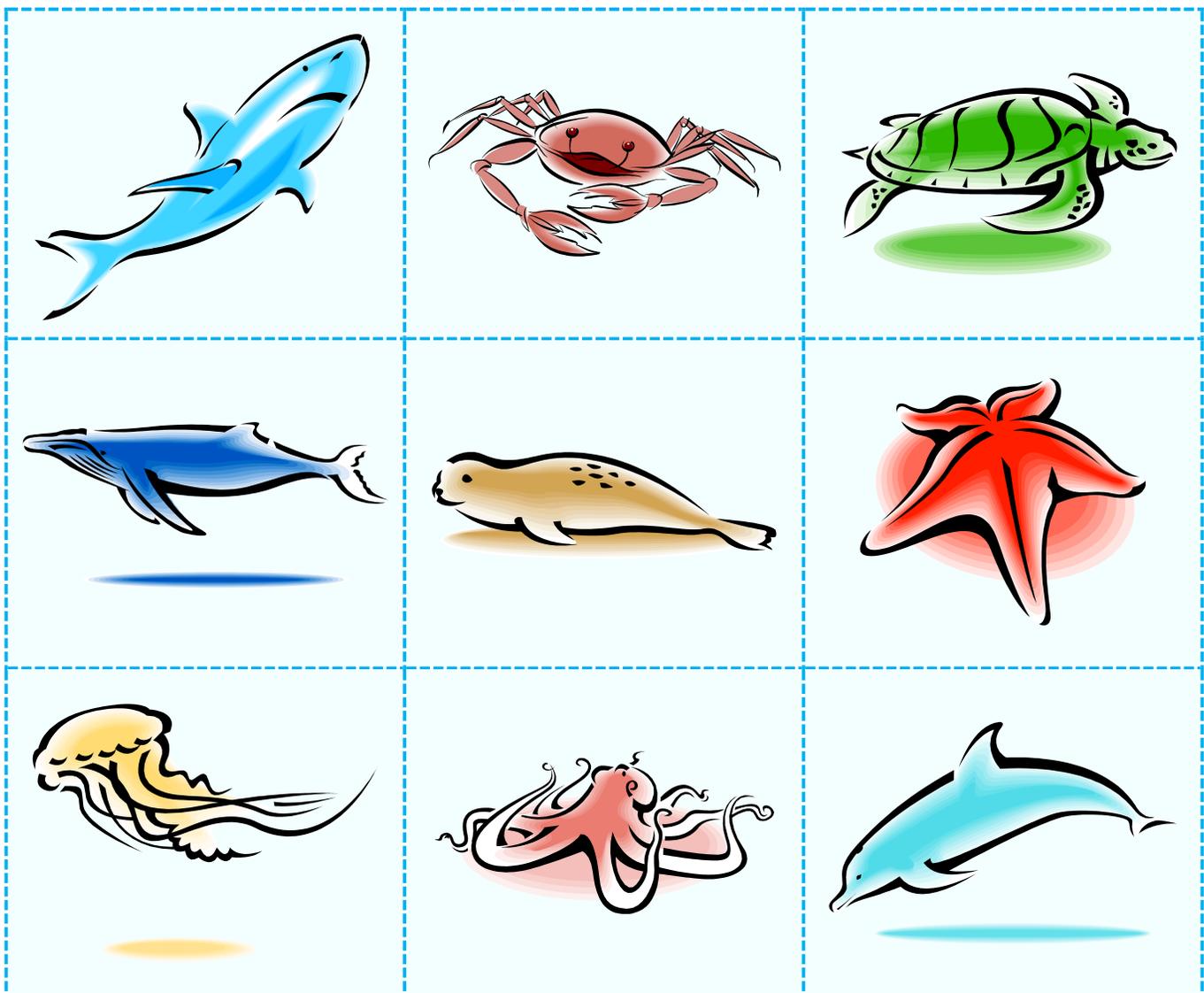






Cut out the labels and pictures below. Match labels to the pictures. Stick the pairs on to the cards below and use the internet and/or information books to help you to complete each card.

<b>whale</b>	<b>octopus</b>	<b>dolphin</b>
<b>starfish</b>	<b>crab</b>	<b>jellyfish</b>
<b>shark</b>	<b>seal</b>	<b>turtle</b>



<b>Sea animals</b>	<b>Sea animals</b>	<b>Sea animals</b>
Stick animal name here	Stick animal name here	Stick animal name here
Stick animal picture here	Stick animal picture here	Stick animal picture here
This animal likes to eat	This animal likes to eat	This animal likes to eat
.....	.....	.....
An interesting feature of this animal is	An interesting feature of this animal is	An interesting feature of this animal is
.....	.....	.....
.....	.....	.....
Here is something else I have learnt about this animal	Here is something else I have learnt about this animal	Here is something else I have learnt about this animal
.....	.....	.....
.....	.....	.....
.....	.....	.....

<b>Sea animals</b>	<b>Sea animals</b>	<b>Sea animals</b>
Stick animal name here	Stick animal name here	Stick animal name here
Stick animal picture here	Stick animal picture here	Stick animal picture here
This animal likes to eat	This animal likes to eat	This animal likes to eat
..... An interesting feature of this animal is	..... An interesting feature of this animal is	..... An interesting feature of this animal is
..... Here is something else I have learnt about this animal	..... Here is something else I have learnt about this animal	..... Here is something else I have learnt about this animal
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

<b>Sea animals</b>	<b>Sea animals</b>	<b>Sea animals</b>
Stick animal name here	Stick animal name here	Stick animal name here
Stick animal picture here	Stick animal picture here	Stick animal picture here
This animal likes to eat	This animal likes to eat	This animal likes to eat
..... An interesting feature of this animal is	..... An interesting feature of this animal is	..... An interesting feature of this animal is
..... Here is something else I have learnt about this animal	..... Here is something else I have learnt about this animal	..... Here is something else I have learnt about this animal
..... .....	..... .....	..... .....

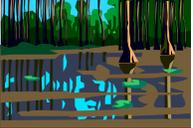


**Learning Outcomes:**

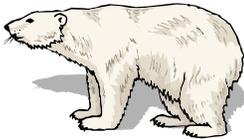
- I know about the different plants and animals found in different habitats.
- I can describe how animals and plants in different habitats are suited to their environment.

**Research**

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

 <p style="text-align: center;"><b>Arctic</b></p>	 <p style="text-align: center;"><b>Rainforest</b></p>	 <p style="text-align: center;"><b>Meadow</b></p>
 <p style="text-align: center;"><b>Mountain</b></p>	 <p style="text-align: center;"><b>Desert</b></p>	 <p style="text-align: center;"><b>Woodland</b></p>
 <p style="text-align: center;"><b>Ocean</b></p>	 <p style="text-align: center;"><b>Pond</b></p>	 <p style="text-align: center;"><b>Swamp</b></p>

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><b>Arctic</b></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><b>Rainforest</b></p>	 <p><b>Meadow</b></p>
 <p><b>Mountain</b></p>	 <p><b>Desert</b></p>	 <p><b>Woodland</b></p>
 <p><b>Ocean</b></p>	 <p><b>Pond</b></p>	 <p><b>Swamp</b></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**

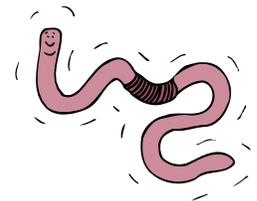
1. Why do some animals camouflage themselves?

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



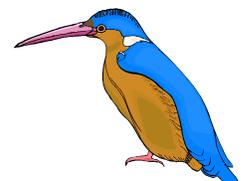
2. Where would you expect to find a worm?

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

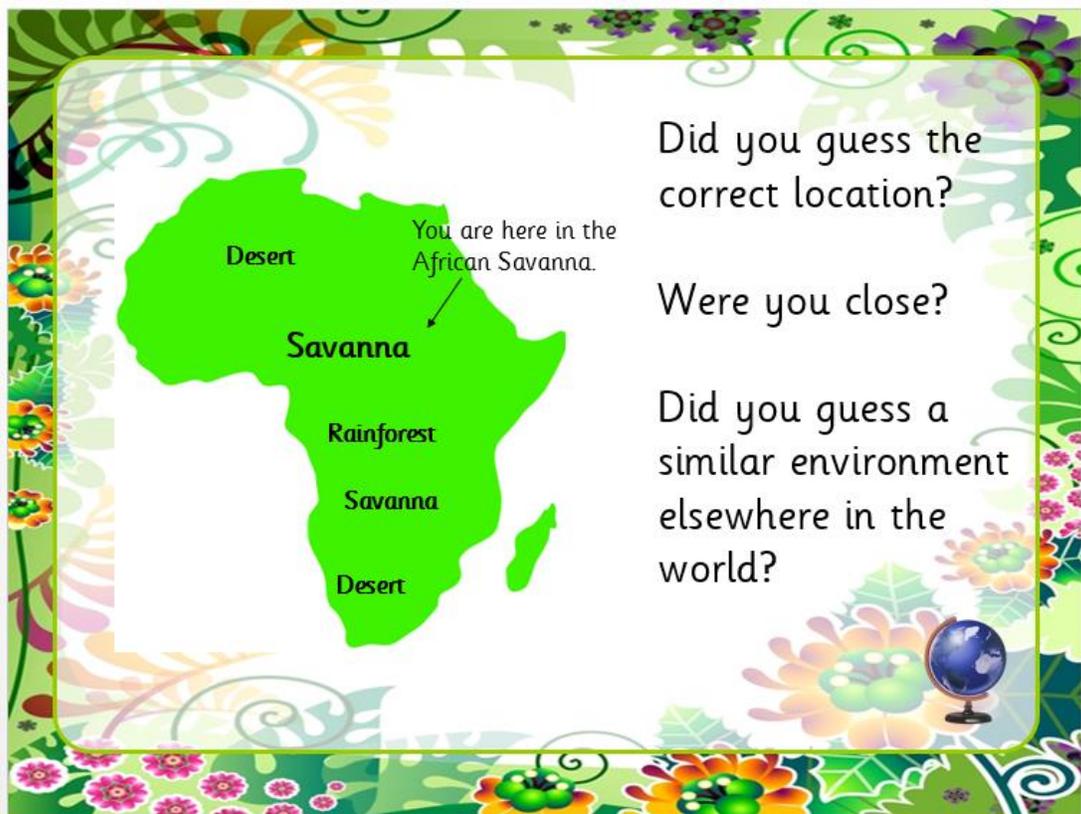
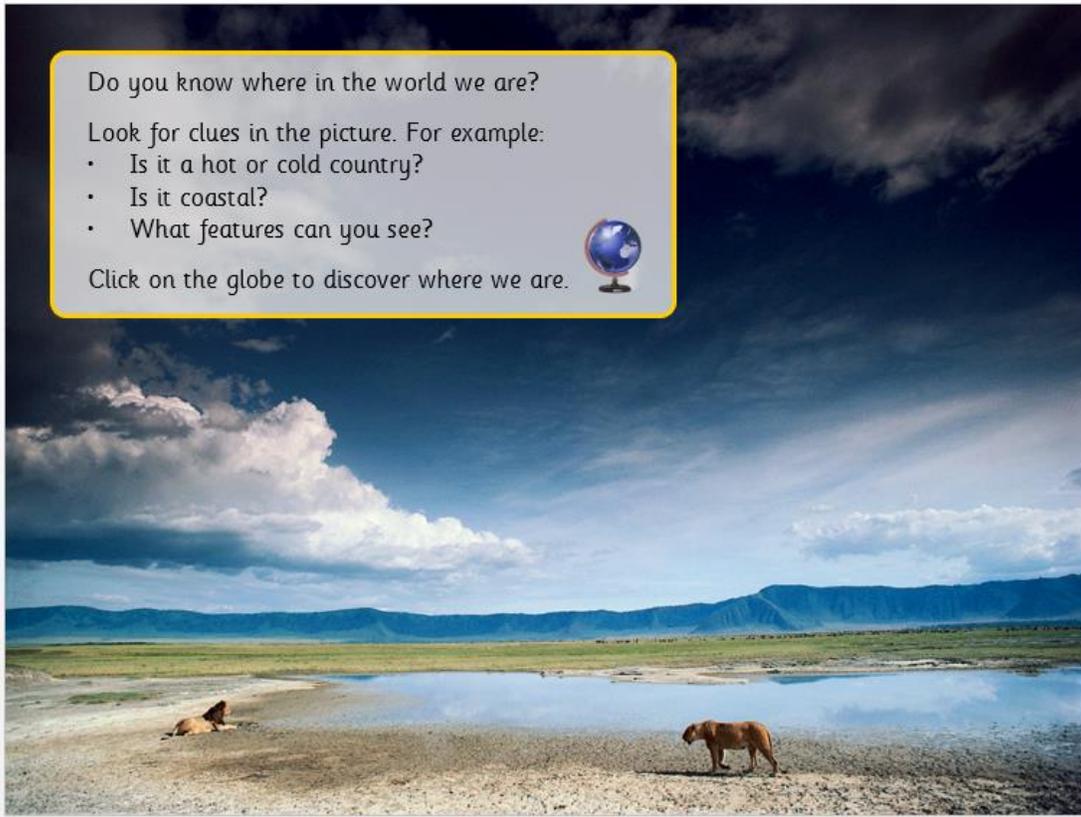


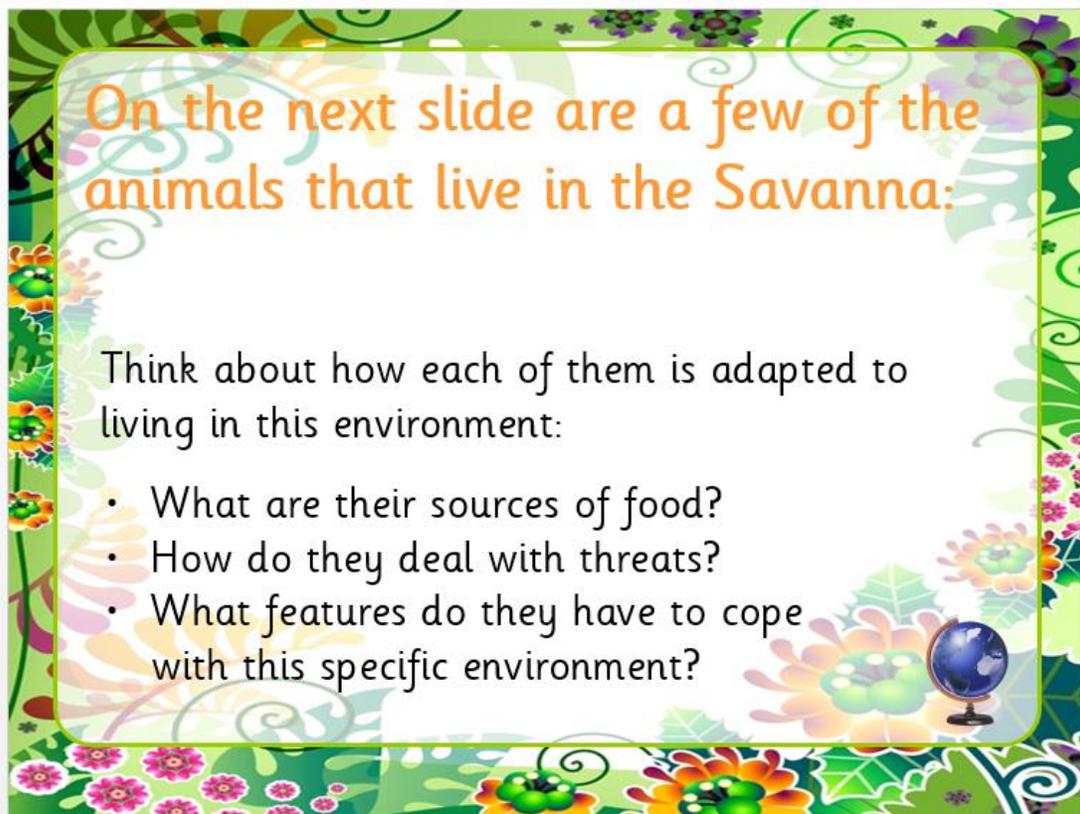
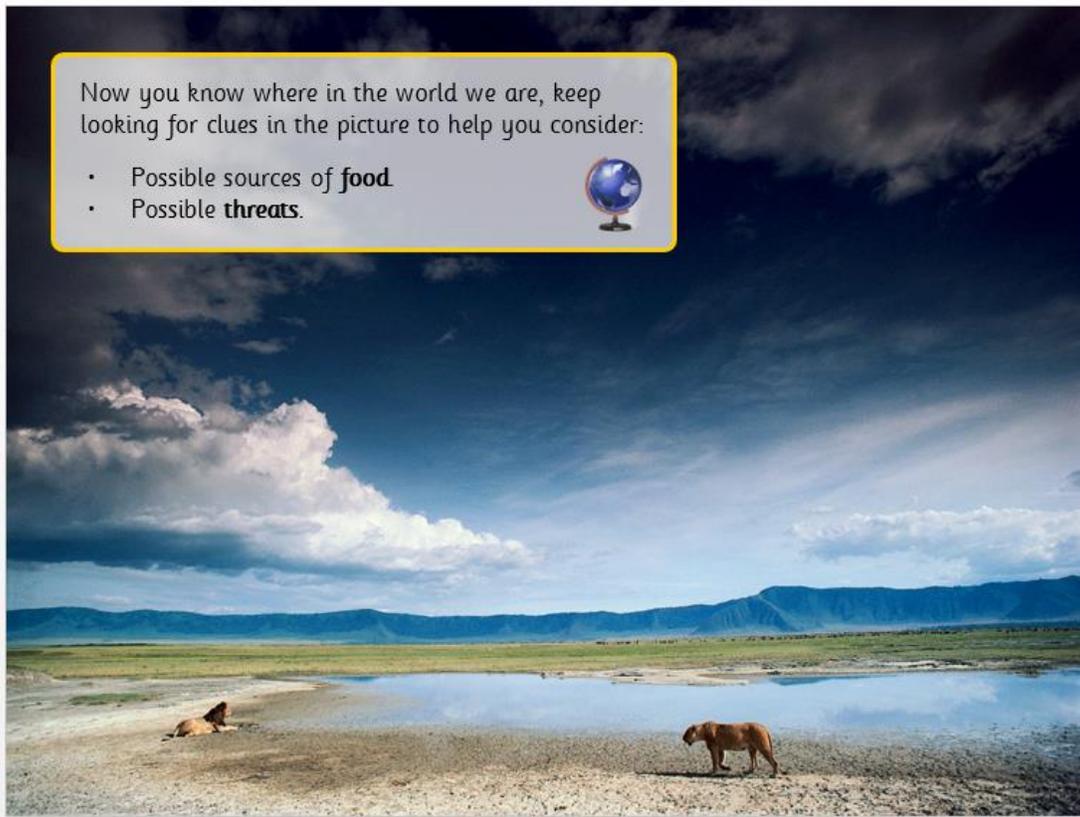
3. Which habitat do kingfishers live in?

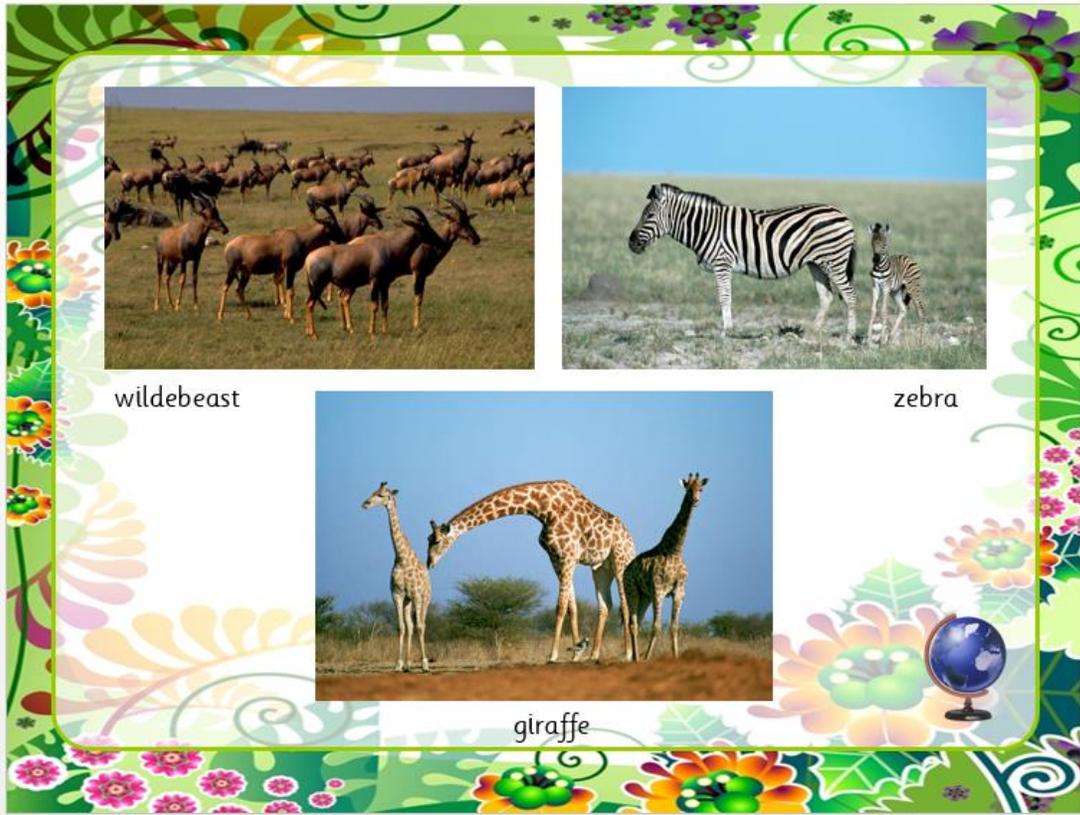
- A. Rainforest
- B. Meadow
- C. River











wildebeest

zebra

giraffe



Do you know where in the world we are?

Look for clues in the picture. For example:

- Is it a hot or cold country?
- Is it coastal?
- What features can you see?

Click to discover where we are

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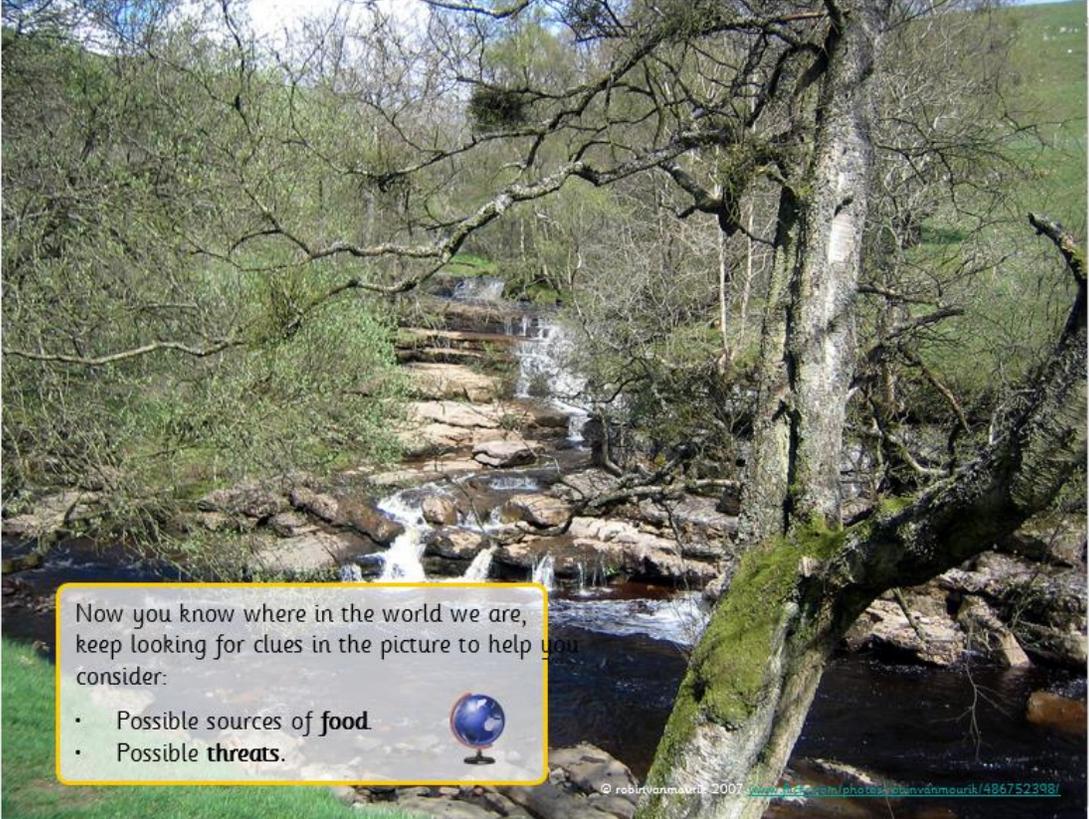
You are in the UK, by a river.



Did you guess the correct location?

Were you close?

Did you guess a similar environment elsewhere in the world?



Now you know where in the world we are, keep looking for clues in the picture to help you consider:

- Possible sources of **food**
- Possible **threats**.



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On the next slide are a few of the animals that live in UK river habitats:

Think about how each of them is adapted to living in this environment:

- What are their sources of food?
- How do they deal with threats?
- What features do they have to cope with this specific environment?



heron



newt



water boatman

Animals have adapted to their habitats in order to survive. Complete the sentences below to create adaption cards for different animals.

# Sloth



Sloths are perfectly adapted to live in the

.....

Sloths move very slowly so that

.....

.....

Green algae grows in their fur which helps to

.....

them in the trees. They have long claws to help them

.....

They live high up in trees away from

.....

# Arctic fox



Arctic foxes are perfectly adapted to live in the

.....

Arctic foxes have thick fur to

.....

.....

Their fur is white so that

.....

Their footpads are thickly furred to

.....

and

.....

# Whale



Whales are perfectly adapted to live in the

Whales have

on top of their heads so that they can

They have a thick layer of blubber beneath the skin to

# Meerkat



Meerkats are perfectly adapted to live in the

Meerkats are light coloured so that

They have dark patches around their eyes to

and to help them to look out for

Have a go at creating your own animal adaptation facts cards.

Choose an animal for each of these environments: rainforest, desert, Antarctic, ocean

Describe features that show how it is suited to the environment it lives in.

.....

Draw or stick a picture of your animal here

..... are perfectly adapted to live in

.....

They have ..... because

.....

.....

They have ..... to

.....

.....

They have ..... so that

.....

.....

**Suggested answers:**

Sloths move very slowly so that **their predators cannot see them as they move through the trees.**

Green algae grows in their fur which helps to **camouflage** them in the trees.

They have long claws to help them **grip the trees they climb.**

They live high up in trees away from **predators.**

Arctic foxes have thick fur to **keep them warm.**

Their fur is white so that **they are camouflaged in the snow.**

Their footpads are thickly furred to **keep their feet warm** and to **help them walk on the ice.**

Whales have **blowholes** on top of their heads so that they can **breathe on the surface of the water.**

They have a thick layer of blubber beneath the skin to **keep them warm in freezing seas.**

Meerkats are light coloured so that **they are camouflaged in the sandy desert.**

They have dark patches around their eyes to **protect them from the glare of the sun** and to help them to look out for **predators.**

**Photo credits**

Meerkat

© [http://commons.wikimedia.org/wiki/File:Suricates\\_Namibia-2.jpg](http://commons.wikimedia.org/wiki/File:Suricates_Namibia-2.jpg)

Sloth

© [http://commons.wikimedia.org/wiki/File:Choloepus\\_hoffmanni\\_\(Puerto\\_Viejo,\\_CR\).jpg](http://commons.wikimedia.org/wiki/File:Choloepus_hoffmanni_(Puerto_Viejo,_CR).jpg)

Whale

© [http://commons.wikimedia.org/wiki/File:Humpback\\_whale\\_jumping.jpg](http://commons.wikimedia.org/wiki/File:Humpback_whale_jumping.jpg)



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	
Cheetah	Ladybird	monkey	
Chicken	Lamb	Reindeer	
Chimpanzee	Lemur	Rhino	
Cockroach	Leopard	Salmon	
Cow	Linx	Scorpion	
Crab	Lion	Seal	
Crocodile	Lizard	Sharks	
Deer	Lobster	Sheep	
Dog	Mammoth	Shrimp	
Dolphin	Mole	Skunk	
Donkey	Monkey	Snail	
Dragonfly	Moose	Snake	
Duck	Mosquito	Spider	
Eagle	Mouse	Squirrel	
Eel	Newt	Starfish	
Elephant	Octopus	Sting ray	
Fish	Orang-utang	Tiger	
Flamingo	Ostrich	Toad	
Fly	Otter	Tortoise	
Fox	Owl	Toucan	





## My perfect animal design sheet

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



\_\_\_\_\_ Meet the

Predators: what eats it

Habitat: where it lives

Life expectancy: how long it lives for

Diet: what it eats

Behaviour: what it does and doesn't like to do

## 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



## Choose ten animals from your list.

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

The legs of a ...



# 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

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

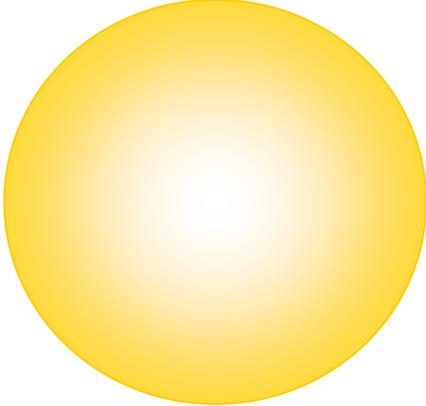
large teeth

height

agility

1. Cut out the planet cards.
2. Can you put them in order, starting with the Sun?
3. When you have done this, find out what the planets look like. Colour in and add detail to the planets.
4. Write one fact about each planet and write it on the back of your planet card.
5. Find out about Pluto – is it really a planet?
6. Is there a tenth planet?



Sun		Jupiter	
Mars		Pluto	

Mercury	Earth	Neptune
Uranus	Venus	Saturn

Drag the coloured tiles to put the planets in the correct order (starting with the sun) ✕

Neptune

Venus

Mercury

Sun

Uranus

Saturn

Jupiter

Earth

Pluto

Mars



In each of the boxes below, draw and colour the eight planets that are closest to the Sun. Then cut out each one and place it by the Sun in the correct order. Number each one 1-8, with number 1 as the closest to the Sun.

Earth	Jupiter	Mars	Mercury
Neptune	Saturn	Uranus	Venus



**Order the planets from the closet to the furthest from the sun. Use the Internet or research books to find out the actual distances from the sun.**



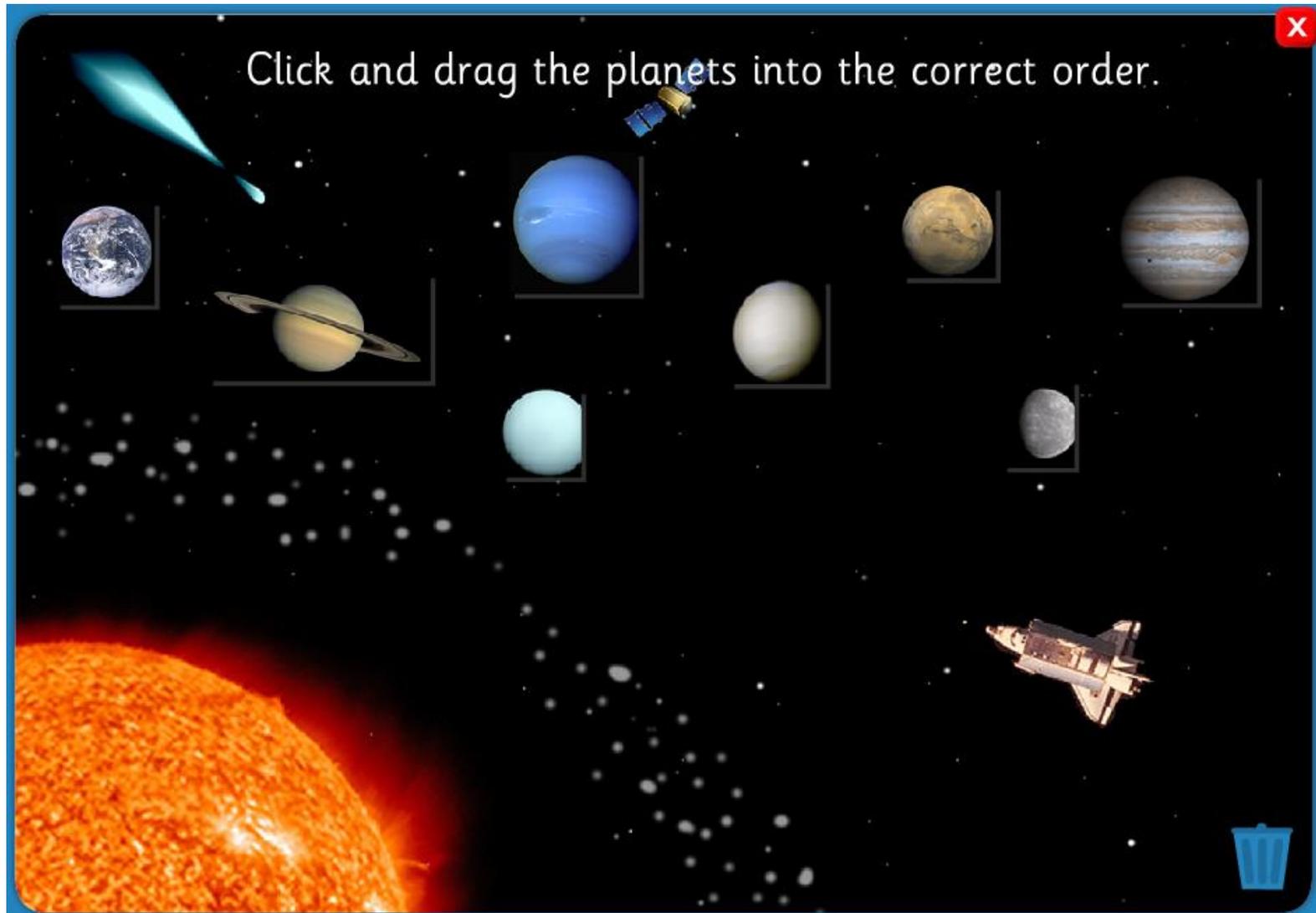
--	--	--	--	--	--	--	--

Distance  
from the  
sun

.....

Ordering the planets interactive activity (Match the planets with their correct names)

The image shows an interactive activity interface for ordering planets. It features a 4x4 grid of 16 empty blue rectangular boxes. The background is a dark space scene with a bright orange sun in the bottom-left corner, a blue comet in the top-left, and a satellite in the top-center. A red 'X' icon is in the top-right corner, and a blue trash can icon is in the bottom-right corner. The box in the third row, fourth column is highlighted with a red border. A small satellite is visible in the bottom-right box.



Name: .....

Date: .....



**L.O: I can explain key facts about the Sun, Earth and Moon**

Below are a selection of facts about the Sun, Earth and Moon. In your book create a simple table with three headings; **Sun**, **Earth** and **Moon**. Cut out the facts and stick them under the correct heading.

More than 100 times the size of the Earth.

A ball of rock that orbits the Earth.

Roughly a quarter of the size of Earth.

Roughly spherical and is over 15 million degrees at its core.

Largely made of gas.

Orbits the Earth at about 3,000km an hour.

Over 40,000km at its circumference.

Travels at 100,000km through space.

Use the internet and/or information books to find out about the Earth, Sun and Moon and their position in relationship to each other. Use your research to help you write definitions for the following words:

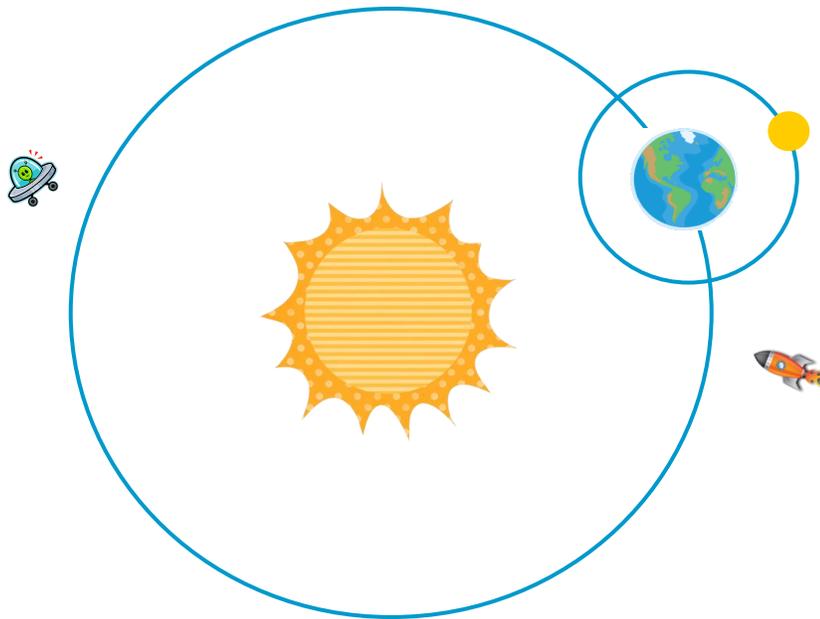
		Definition
<p style="text-align: center;"><b>Sun</b></p>	<b>solar flare</b>	
	<b>sunspot</b>	
	<b>corona</b>	
<p style="text-align: center;"><b>Earth</b></p>	<b>atmosphere</b>	
	<b>land</b>	
	<b>ocean</b>	
<p style="text-align: center;"><b>Moon</b></p>	<b>mountains</b>	
	<b>plains</b>	
	<b>crater</b>	



**L.O: I can explain the relationships between the Sun, Earth and Moon**

Copy this simple diagram into your book- use a whole page. **Note the diagram is NOT to scale.** Use the words below to help you **label** the diagram. Cut out the captions below and stick them around your diagram.

Sun	solar flare	sunspot	corona	orbit	Moon
Earth	atmosphere	land	ocean	plains	mountains



The moon orbits the Earth once every 28 days.	The Earth spins on its axis once every 24 hours. As we turn away from the Sun, we enter night.	The Earth orbits the Sun once every 365 ¼ days.	The Sun is a star at the centre of our Solar System.
The Moon doesn't change shape; it is the Sun's light that makes it appear to wax and wane.	The Earth's tilt on its axis is what causes our seasons.	The Moon is about 320,000 km away from the Earth.	The Moon is only held in place by the gravitational pull of the Earth.
The Moon doesn't shine. It reflects the Sun's light.	The corona of the Sun is made from helium and hydrogen.	Water covers 70% of the Earth, the other 30% is covered by land.	The Sun is 15 million degrees hot at its centre.



**L.O:** I can describe how the position of the Sun appears to change during the day, and how shadows change as this happens.

You are going to investigate how the Sun's light affects the Earth. You will place a stick outside in the Sun, and will measure its shadow at intervals during the day. You will need to decide how often to measure the shadows.



**Equipment** Write a list of the equipment you think we will need

.....

.....

.....

**Results**

Time	Length of shadow (cm)	Diagram of position of stick and record of shadows (use same drawing and mark shadow each time)

**Conclusion and Explanation**

Using what you know about how the Earth orbits the Sun, **explain** what has happened to your shadow. Why would some people think it is the Sun that moves in the sky?

.....

.....

.....

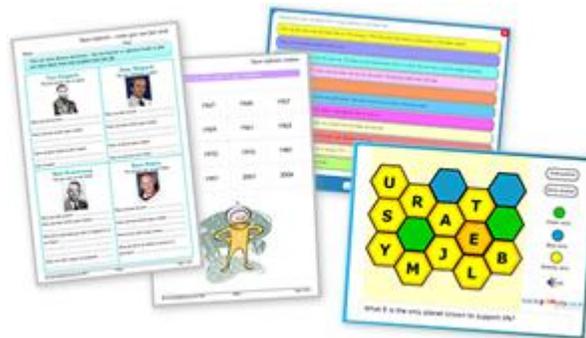
.....

.....

## Explorers project pack – teaching ideas and resources about famous explorers

### *What makes someone head out on an adventure?*

Why did they choose that particular destination, or were they heading out into the unknown? What did they discover when they got there? – or perhaps they never made it! All answers just waiting to be discovered as you find out what makes an explorer tick.



### Teaching ideas

- Scott's ill-fated expedition is one of the best known adventures if not the most successful. Consider the facts surrounding the expedition and ask the children to decide if Scott was a great explorer or a not! Get the children to describe what they have would do differently to prevent the disastrous outcome. [Resource 17886: 'Captain Scott's South pole expedition timeline'](#) provides background information. [Resource 17871: 'Captain Scott – bad planning or bad luck?'](#) helps children to organise their ideas.
- Which of us hasn't wanted to be astronaut as some point in our lives? Create a class space-centre or rocket to launch some imaginary journeys into space – large boxes and junk essential, oh, and lots of tin foil! Set a homework challenge to produce a rocket dashboard so that once all the models are placed together you'll have a space-station worthy of NASA.

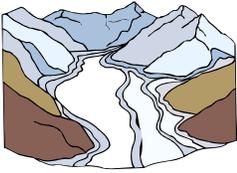
- What are the skills required to be an astronaut? The first woman in space was selected for her height and her ability to parachute, but what attributes and skills do your pupils consider to be the most important? Make a skills list and compare it with the skills of real astronauts to see if they would meet the children's criteria. As an extension activity, produce a job advert for an astronaut and ask the children to apply. Then hold interviews to see who in your class would get the job. [Resource 17874: 'Space exploration timeline'](#), [resource 17880: 'Which astronaut did that?'](#) and [resource 17882: 'Space Hexbuster quiz'](#) provide background information for the activity. [Resource: 17873: 'Space explorers – create your own fact cards'](#) provides a template to record research information.
- Create a biography for a famous explorer, past or present. Use the information gathered to present an explorer's edition of 'This is your life'. Children could dress as their chosen explorer and take centre stage – who'd imagine you could have Christopher Columbus and Buzz Aldrin in the same room! [Resource 10544: 'This is your life!'](#) and [resource 8147: 'Research a famous person on the internet'](#) help children to gather and sort their ideas.

---

**Resources contained within the Famous Explorers section of this project pack**

---

Captain Scott’s South Pole expedition timeline .....	104
Captain Scott – bad luck or bad planning? .....	107
Which astronaut did that? .....	111
Space explorers – create your own fact cards.....	112
Space exploration timeline .....	115
Space hexbuster quiz .....	119
This is your life .....	120
Research a famous person on the internet .....	123



Cut out and sequence the events listed below.  
Stick the events on to the timeline to create a record of Captain Scott's tragic expedition.

The motor sledges break down and the ponies die due to freezing weather. The dogs are sent back to base camp because there is no food left to feed them. The men have to pull the sledges themselves.

Scott and five men reach the South Pole on 17<sup>th</sup> January, 1912. They have been beaten by Amundsen, a Norwegian explorer.

Scott's boat reaches the Antarctic in January 1911.

They run out of food and fuel to heat water.

Scott and his team set up a base camp.

On 12<sup>th</sup> November, 1912, their tent is found with the bodies of three men.

Two of the men die.

On 2<sup>nd</sup> November, 1911, Scott and nine other men set out with ponies. The final four follow later with dogs.

They become too tired to walk more than a few kilometres each day.

A terrible blizzard comes which makes it impossible for them to carry on.

The weather gets worse and the men get frostbite. Their food rations are too small so they lose weight.



Sequence the events of Captain Scott's tragic expedition to the South Pole.



They become too tired to walk more than a few kilometres each day.

On 12th November, 1912, their tent is found with the bodies of three men.

Scott and five men reach the South Pole on 17th January, 1912. They have been beaten by Amundsen, a Norwegian explorer.

On 2nd November, 1911, Scott and nine other men set out with ponies. The final four follow later with dogs.

The weather gets worse and the men get frostbite. Their food rations are too small so they lose weight.

A terrible blizzard comes which makes it impossible for them to carry on.

Two of the men die.

Scott's boat reaches the Antarctic in January 1911.

They run out of food and fuel to heat water.

The sledges break down and the ponies die. The dogs are sent back because there is no food. The men have to pull the sledges themselves.

Scott and his team set up a base camp.

Captain Scott's expedition to the South Pole ended in tragedy with the loss of five men. Many people think that Scott's journey was not well planned. Many others, however, think that Scott was a brave explorer and a British hero.

Look at the problems that happened on Scott's expedition, listed below. Cut out each problem and decide whether it was caused by Scott's **bad planning**, or was just **bad luck**. Place each event on to the grid.



<p>The motor sledges broke down after 80 kilometres.</p>	<p>The ponies were not used to freezing weather and died.</p>	<p>The dogs were sent back to base camp because there was no food left to feed them.</p>
<p>The men had to pull the sledges themselves because there were no animals left to pull them.</p>	<p>The men got frostbite as the weather got worse.</p>	<p>The bright sunshine and white snow hurt the men's eyes and they got snow blindness.</p>
<p>The journey to the South Pole was slowed down by bad weather.</p>	<p>They ran out of food because the men needed to eat extra rations as they were pulling the sledges themselves.</p>	<p>Roald Amundsen, a Norwegian, beat them to the South Pole. This bitterly disappointed the men.</p>

Name: .....

Date: .....

**Place your cards into the grid below.**

Bad planning	Bad luck

Name: .....

Date: .....

Do you think Scott's expedition was badly planned, or was he just very unlucky?  
Give reasons for your answer.

.....

.....

.....

.....

.....

.....

.....

.....

.....

Do you think Scott is a hero? Give a reason for your answer.

.....

.....

.....

.....

.....

.....

.....

.....

.....

Do you think these problems were caused by bad planning or bad luck? ✖

	<b>Bad luck</b>	<b>Bad planning</b>
The motor sledges broke down after 80 kilometres.	<input type="radio"/>	<input type="radio"/>
The ponies were not used to freezing weather and died.	<input type="radio"/>	<input type="radio"/>
The dogs were sent back to base camp because there was no food left to feed them.	<input type="radio"/>	<input type="radio"/>
The men had to pull the sledges themselves because there were no animals left to pull them.	<input type="radio"/>	<input type="radio"/>
The men got frostbite as the weather got worse.	<input type="radio"/>	<input type="radio"/>
The bright sunshine and white snow hurt the men's eyes and they got snow blindness.	<input type="radio"/>	<input type="radio"/>
The journey to the South Pole was slowed down by bad weather.	<input type="radio"/>	<input type="radio"/>
They ran out of food because the men needed to eat extra rations as they were pulling the sledges themselves.	<input type="radio"/>	<input type="radio"/>
Roald Amundsen, a Norwegian, beat them to the South Pole.	<input type="radio"/>	<input type="radio"/>

What are these space explorers most famous for? Match the astronauts to the correct facts about them. ✕

the first person ever in space	Christa McAuliffe
the first American in space	Buzz Aldrin
the first man on the Moon	James Lovell
the second man on the Moon	Neil Armstrong
the first ever woman in space	Alan Shepherd
the first teacher in space	Gus Grissom
commander of the Apollo 13	Yuri Gagarin
died in America's first space tragedy	Valentina Tereshkova

Name: .....

Date: .....

Here are some famous astronauts. Use the Internet or reference books to find out more about them and complete each fact file.

### Yuri Gagarin

The first person ever in space



Place and date of birth: .....

.....

Name and date of first space mission:

.....

.....

Name of space vehicle on first mission:

.....

Date of death: .....

### Alan Shepard

The first American in space



Place and date of birth: .....

.....

Name and date of first space mission:

.....

.....

Name of second space mission:

.....

Date of retirement from NASA: .....

### Neil Armstrong

The first man on the Moon



Place and date of birth: .....

Name and date of first space mission: .....

.....

What did he famously say when he stepped on to the Moon? .....

.....

.....

Name one other mission he completed: .....

.....

### Buzz Aldrin

The second man on the Moon



Place and date of birth: .....

.....

Name and date of first space mission: .....

.....

Name of one other space mission:.....

.....

What job did he do before he became an astronaut?

.....

Name: .....

Date: .....

### Valentina Tereshkova

The first ever woman in space



Place and date of birth: .....

.....

Name and date of first space mission: .....

.....

What job did she do before she became an astronaut? .....

How many times did she orbit Earth? .....

### Christa McAuliffe

Chosen to be the first teacher in space



Place and date of birth: .....

Name and date of space mission: .....

.....

What happened on this mission? .....

.....

Date of death: .....

### Jim Lovell

Commander of Apollo 13



Place and date of birth: .....

.....

Name and date of first space mission: .....

.....

What happened on his second mission, Apollo 13?

.....

Date of retirement from NASA: .....

### Gus Grissom

Died in America's first space tragedy



Place and date of birth: .....

.....

Name and date of first space mission: .....

.....

What happened aboard Apollo 1? .....

.....

Date of death: .....

**Photo credits**

Yuri Gagarin

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Alan Shepard

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Neil Armstrong

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Buzz Aldrin

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Valentina Tereshkova

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Christa McAuliffe

© [http://en.wikipedia.org/wiki/File:Christa\\_McAuliffe.jpg](http://en.wikipedia.org/wiki/File:Christa_McAuliffe.jpg)

Jim Lovell

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Gus Grissom

© [http://en.wikipedia.org/wiki/File:Virgil\\_I.\\_\(Gus\)\\_Grissom\\_portrait.jpg](http://en.wikipedia.org/wiki/File:Virgil_I._(Gus)_Grissom_portrait.jpg)



In the past 70 years, there has been amazing progress in space travel. Some of the key events in space travel are listed below. Cut out and sequence them in the correct order.

Albert II is the first monkey in space. He flies in an American V2 rocket.

Apollo 13 sets off on its mission. There is an explosion on board. The crew do not make it to the Moon, but they do get back to Earth alive.

American and Russian scientists are in a space race to get a spacecraft to the Moon. The Russians make it first – in a spacecraft with no people on board.

An American millionaire becomes the first space tourist – he spends a week in orbit on a Russian spacecraft.

Yuri Gagarin, a Russian astronaut, is the first person in space.

Russia launches its first satellite into space: Sputnik 1.

The American Space Shuttle Challenger explodes shortly after take-off. All seven astronauts on board are killed. All shuttles are grounded for three years.

A Russian space dog, Laika, is the first animal to orbit Earth.

Valentina Tereshkova is the first woman in space.

The space shuttle is designed. It is the first spacecraft that can be used for more than one space mission.

American astronauts Neil Armstrong and then Buzz Aldrin take the first steps on to the Moon.

A German rocket, the V2, is the first rocket to reach the boundary of space.

A new airline, Virgin Galactic, is set up offering tourists flights into space.

A Russian space probe explores Mars.

The first animals are launched into space. Fruit flies are used to see the effects of space travel on animals.

Helen Sharman is the first British astronaut in space. She spends eight days in space with a Russian mission.

Now add the year to each event in your timeline.

1942	1947	1949	1957
1957	1959	1961	1963
1969	1970	1973	1981
1986	1991	2001	2004



## Space exploration timeline – Answers

Albert II is the first monkey in space. He flies in an American V2 rocket. **1949**

Apollo 13 sets off on its mission. There is an explosion on board. The crew do not make it to the Moon, but they do get back to Earth alive. **1970**

American and Russian scientists are in a space race to get a spacecraft to the Moon. The Russians make it first – in a spacecraft with no people on board. **1959**

An American millionaire becomes the first space tourist – he spends a week in orbit on a Russian spacecraft. **2001**

Yuri Gagarin, a Russian astronaut, is the first person in space. **1961**

Russia launches its first satellite into space: Sputnik 1. **1957**

The American Space Shuttle Challenger explodes shortly after take-off. All seven astronauts on board are killed. All shuttles are grounded for three years. **1986**

A Russian space dog, Laika, is the first animal to orbit Earth. **1957**

Valentina Tereshkova is the first woman in space. **1963**

The Space Shuttle is designed. It is the first spacecraft that can be used for more than one space mission. **1981**

American astronauts Neil Armstrong and then Buzz Aldrin take the first steps on to the Moon. **1969**

A German rocket, the V2, is the first rocket to reach the boundary of space. **1942**

A new airline, Virgin Galactic, is set up offering tourists flights into space. **2004**

A Russian space probe explores Mars. **2011**

The first animals are launched into space. Fruit flies are used to see the effects of space travel on animals. **1947**

Helen Sharman is the first British astronaut in space. She spends eight days in space with a Russian mission. **1991**

Order the events to show the sequence of space exploration.

First animals, fruit flies, are launched into space.

Yuri Gagarin, a Russian astronaut, is the first person in space.

Russia launches its first satellite into space: Sputnik 1.

An American millionaire becomes the first space tourist.

The American Space Shuttle Challenger explodes shortly after take-off.

Valentina Tereshkova is the first woman in space.

Apollo 13 sets off on its mission - the crew do not make it to the Moon.

German V2 rocket reaches the boundary of space.

Albert II is the first monkey in space.

Helen Sharman is the first British astronaut in space.

Neil Armstrong and then Buzz Aldrin take the first steps on to the Moon.

The Space Shuttle is the first spacecraft that can be used for more than one space mission.

A Russian space dog, Laika, is the first dog to orbit Earth.

## Teacher copy

### Learning objectives:

- speech adapted to form, audience and purpose
- careful listening and appropriate answers
- standard English and grammar used
- interesting vocabulary to engage listeners
- clear and confident speech
- good contribution to project

### Preparation

*Watch / Discuss an episode of 'This is your Life'. Note features of the format. For example:*

- the basic structure
- how the presenter builds up interest / suspense at the start
- the tone and demeanour of the presenter
- how the 'surprise' is handled
- the opening of the main section
- the introduction of guests and the examples of what they say
- presenter techniques e.g. repetition of the phrase of the title
- the closing.

*As a class, summarise key points and how the programme adapts to its purpose and audience.*

### **Explain the task:**

*Groups will plan and perform a version of 'This is Your Life'.*

The children need to be in groups of five or six.

### **Roles:**

- Presenter
- This is your life person!
- Relative
- Influential person
- Friend

### Your objectives:

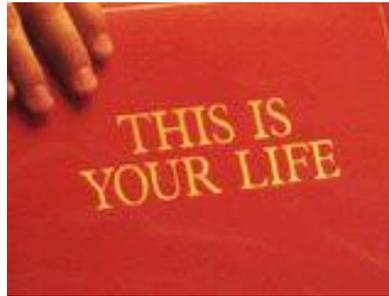
- to work in a group
- to agree on how to present an episode of 'This is Your Life'
- to use some of the ideas we saw on the TV show.

### Your tasks:

1. In groups of five or six decide who will be the presenter.
2. Plan out the structure e.g. the order of the guests.
3. Each character then needs to work with the presenter to link their part in.
4. Plan a series of bullet-point notes for your contribution – what are you going to say?
5. Rehearse your performance.
6. Think about how you can improve it.



## Drama presentation



### Your objectives:

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- to work in a group
- to agree on how to present an episode of 'This is Your Life'
- to use some of the ideas we saw on the TV show.

### Your tasks:

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In your group

- the presenter will be .....
- The famous person will be .....
- Other characters will be .....

### The structure:

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- ..... will be the first guest
- Then it will be .....
- Then it will be .....
- Then it will be .....

Use the internet to search for a famous person of your choice and use the template below to make some notes.

Name of person:
Where and when they were born:
Family:
Education – where they went to school / university:
Key event one:
Key event two:
Key event three:
Interesting facts: