

# **BOOK 3 – ANIMAL KINGDOM**

This activity book belongs to:





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Hi, I'm Gibson! Welcome back to the Scottish SPCA's Adventure Tails.

Congratulations on completing the second stage on your quest to become a Scottish SPCA Animal Champion.

Remember, in order to be crowned an Animal Champion there are five colour stages to complete – Orange, Purple, Pink, Blue and Green.

A new colour stage will be released each month so keep an eye on our website (scottishspca.org/education-resources). To be Scotland's Animal Champion you must complete all coloured booklets in order so the orange booklet would be your first and the green booklet would be your last one.

Did you see we also launched #AnimalSmart? Check out our social media channels, as each week we will introduce you to some of the animals in our care. You will also get the opportunity to ask questions to those such as our vets, the team who help rehabilitate wildlife and so much more.

As for now, Martha and I have an exciting NEW challenge for you where you can really show your creative side. So... shall we get started?!





### **HOW TO USE THE PACK**

1. This pack is similar to the orange stage where we have set lots of exciting activities for you to do! Work your way through the pages and complete at least four of the activities on each page. We have made sure that if you are looking at this pack on the computer you can actually type your answers into some of the spaces. There are blank pages at the back of the booklet if there is not space provided on the page itself to complete the tasks. If using the pages at the back of the booklet don't forget to write the name of the activity and the page number so you can keep track of all of your amazing work!



2. Look out for me, Gibson, as I have some puzzles that need solved. Look at my clues and see if you can guess what the answers are. Use your answers to crack the code, complete this second booklet and unlock the next one.



- 3. If you can't guess what the answer is, take a sneak peak on page 28 as I have left you some clues.
- 4. You can either print off the pack and draw on it directly or use your own paper. Once you have completed all the steps and cracked Inspector Martha's secret code, take a photo of page 28, along with a photos of your creations and share it with us. If you have printed the booklet and filled in the pages, you can scan these in or take photos and then ask your parent/carer to email us: education@scottishspca.org. Don't forget to include your first name, initial of your second name, class, school and local authority. For example I would be Gibson S, P7, Dogtastic Primary School, Edinburgh.



- 5. Complete our challenge and we will send you a certificate and you can then progress on to the next coloured stage.
- 6. Complete all five coloured stages and we will crown you one of Scotland's Animal Champions. Pssst....if at least 50% of the pupils at your school take part, you'll get the amazing honour of being one of the Scottish SPCA's School Animal Champions 2020.



### **CURRICULUM LINKS**

We have made sure that we have included lots of activities that link to the Curriculum for Excellence so that you can impress your teachers with what you have learnt!

Health and wellbeing

Numeracy and mathematics

Expressive arts

Literacy and languages

Religious and moral education

Science

Social Studies

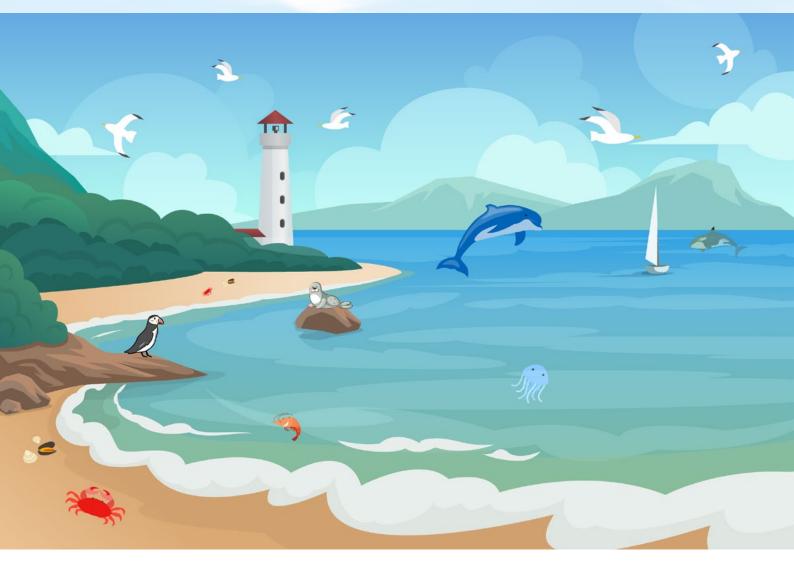
Technology



# **COASTS AND SEAS**



Have a good look at this coastal scene. Can you see and name eight animals that like to live along the coast?



ANIMAL 1:	 ANIMAL 5:	
ANIMAL 2:	 ANIMAL 6:	
ANIMAL 3:	 ANIMAL 7:	
ANIMAL 4:	ANIMAL 8:	



#### **ANIMAL TRIVIA #1**

What is a group of dolphins called?



### **COASTS AND SEAS**

#### **ACTIVITY 2**

When sound travels through water it travels five times faster than in air. Marine animals rely on their sense of hearing to identify their surroundings, communicate, locate food and protect themselves underwater. Mammals, such as whales and dolphins use sound to identify objects such as food, obstacles, and others of their own kind. Some people find the sounds marine mammals make relaxing.

Find a comfortable place to sit or lie down and ask an adult to play you sounds of dolphins and whales.

How did this make you feel? What kind of sounds were they making? Why do you think they were making these noises?

#### **ACTIVITY 3**

Look closely at the picture of the beach. To get the magic number, add up all the wings there are, then divide that number by the amount of crabs there are. Finally, times that number by the number of seagulls there are in the picture.

<b>MAGIC</b>	<b>NUMBER:</b>	

#### ACTIVITY 4

The Scottish underwater ecosystem is home to many species of plants and animals, from small organisms such as plankton, to large mammals like the blue whale. Using a cardboard box of any size, can you create an underwater diorama?

Firstly, you will need to research the plants and sea creatures that live in Scottish seas and choose the ones you want to appear in your model.

You can use any materials you want to create your diorama; images cut from magazines, playdoh, paints or pens or you may wish to use objects such as rocks or twigs. Just be creative!



#### **ACTIVITY 5**

Can you imagine what it's like to be a completely different creature, in a completely different habitat? Choose one of the animals below and write a short story about a day in their life. You should consider what special features they have and how they might use them.

Grey seal

Octopus

**&** Crab

Mackerel



What is the nickname sometimes given to puffins?



### **COASTS AND SEAS**

### **ACTIVITY 6**

Akheilos was a lesser known Greek sea god with a shark head and a fiery fish body. Akheilos was turned into a shark as punishment after boasting that he was more attractive than the goddess of beauty, Aphrodite.

How do you think Akheilos felt being turned into a shark fish? Can you draw a shark fish? Think about what it would need to survive under water.

### **ACTIVITY 7**

Whales and dolphins breathe through a hole in the top of their head called a blow hole (just like our nostrils). When they come up to breathe you can see and hear this. The table below shows how long these animals can hold their breath for.

- Harbour porpoise: 5 mins
- Humpback whale: 20 mins
- Bottlenose dolphin: 10 mins
- Blue whale: 50 mins
- Orca: 15 mins
- Sperm whale: 140 mins

Why do you think some mammals can hold their breath for longer than others? List the animals in order starting with the one that can hold its breath for the longest at the top.

How long can you hold your breath for? Time yourself and add your name to the list in the right place.

### **ACTIVITY 8**

Bass Rock is a tiny island formed from a plug of volcanic rock in the Firth of Forth, Scotland. It contains the world's largest colony of northern gannets, one of the biggest seabirds in the North Atlantic.

Can you discover and tell an adult three really interesting facts about Bass Rock?



#### ACTIVITY 9

Researchers have studied marine animals for years so they can find out, for example, where they live, what they eat, what sounds they make and if they are sociable. They will use lots of different types of equipment to do this.

If you wanted to research what a seal does underwater, what equipment would you use? Have a go at designing this.



What is the largest butterfly found in Scotland?



# LOCHS, RIVERS AND WETLAND

Our lochs, rivers and wetlands support thousands of species and can help maintain our water quality. Can you help Martha get across the loch in her boat so she can check out the wildlife on the other side? You will need to complete the activities to help her get there.





Water voles are one of our most threatened native mammals in the UK. They live beside bodies of water where they feed on grass and herbs on the banks. They also dig burrows there too. They are often mistaken for rats.

Using the descriptions in the table, draw a water vole and a rat and give an explanation of their features.

Can you see the similarities and differences?



Brown Rat	Water Vole
Long, scaly tail	Furry tail about 60% the
	length of its body
Pointed nose	Short, rounded nose
Big ears	Small, almost hidden
	ears
20 – 30cm long (including	12 – 20cm long
tail)	(including tail)
Short, brown, scruffy fur	Black or brown short
	silky hair



How long can river otters hold their breath underwater?



# LOCHS, RIVERS AND WETLAND

### **ACTIVITY 2**

Braeview Wetland is a beautiful 57 acre natural ecosystem and is home to hundreds of species of wildlife.

Using the information in the table, can you calculate the total economic value of the wetlands using the per acre estimates? (You may need a calculator).

Wetland Function	Economic value (UK£ acre/year)
Flood control	1,145
Fishing	923
Hiking	1,214
Water filtering	712
Plant and animal life	531
Water supply	112

#### ACTIVITY 3

One of the most well known lochs in Scotland is Loch Ness. It is believed to be home to the Loch Ness monster, a large marine creature.

What do you think the Loch Ness monster looks like? Have you seen it? Create a picture or model of the Loch Ness monster and think about what special features it would have to live in the loch.



#### **ACTIVITY 4**

Freshwater wetlands are one of the richest areas for wildlife. Every year huge flocks of birds migrate to Scotland's wetlands in autumn and winter.

Can you discover **three** birds that migrate to Scotland's wetlands and write some facts about them?

Why do they migrate? Where do they migrate from and why would they choose to return to the wetland?



A kingfisher is said to be the first bird to fly from Noah's ark after the flood, supposedly receiving the orange of the setting sun on its breast and the blue of the sky on its back. It was considered a symbol of peace, promising prosperity and love.

Try and draw your own kingfisher on page 29 and colour it in using the colours mentioned.





What is it called when an animals colour or pattern helps it to blend into its surroundings?

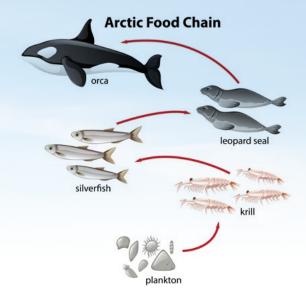


# LOCHS, RIVERS AND WETLAND

### **ACTIVITY 6**

Look at this example of an Arctic food chain.

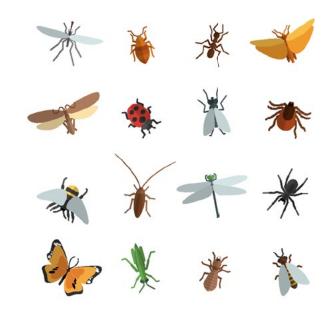
Can you create an example of a wetland food chain?



#### ACTIVITY 7

Wetlands, rivers and lochs are home to a wide range of minibeasts, who live both in and out of the water. These minibeasts are very important for the ecosystem.

Discuss the different ways in which changes to the environment can affect minibeasts.



### ACTIVITY 8

Beavers have recently been reintroduced back in to Scotland. They play an important part in the environment and ecosystem.

Make a short video clip or poster about beavers and the benefits they have on both people and wildlife.



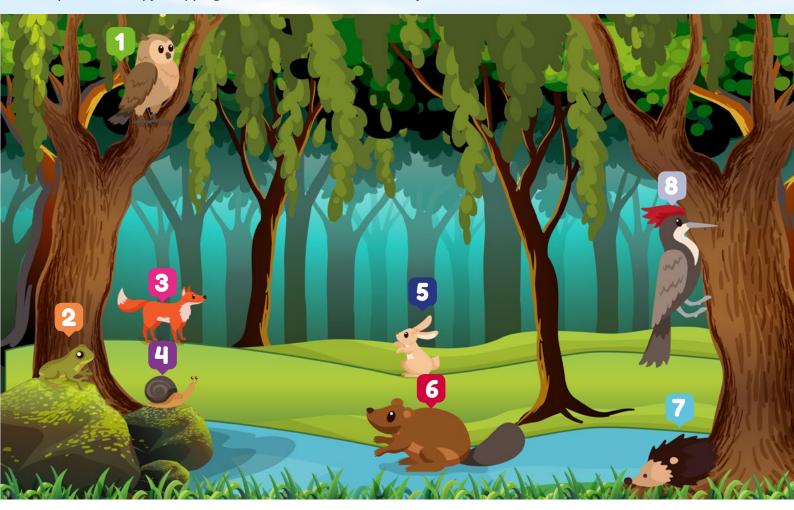


What is a squirrel's home called?



### WOODLAND

Imagine you are a **great spotted woodpecker** and you are working your way through woodland foraging for food. Complete the numbered activities as you search for food on the woodland floor and make your way up to the canopy, stopping to rest on branches on the way.



#### ACTIVITY 1

Animals, including humans, need food, water and air to stay alive.

What type of food do you think animals will find to eat in the woodland? Do you think it is easier for herbivores or carnivores to find food?

#### **ACTIVITY 2**

Measure a tree to find out its age, this could be a tree in your garden or one close by to your house.

Roughly, every 2.5cm of girth represents about one year's growth so measure around the girth of a tree trunk in cm and divide by 2.5 to find out its age.

How old were you or your parents when the tree was planted?

#### **ANIMAL TRIVIA #7**

What do you call a place where plants and animals have everything they need to live?

.....



### WOODLAND

### **ACTIVITY 3**

Make an origami animal which lives in the woodland.
You can find instructions on websites like: origamiway.com/origami-animals

#### **ACTIVITY 4**

Write down some adjectives that describe the woodland.

Using these words create a short poem about the woodland.



#### **EXECUTION** ACTIVITY 5

Places where hawthorn grow were meant to be part of Fairyland. The five parts of the leaf were said to make the pentagram or elven cross, a magical symbol. Does the woodland feel magical to you in any way? Do some places in the woodland feel more magical than others?

Write a short story about a magical wood, what creatures live there? In what way is it magical?

#### **ACTIVITY 6**

Look at an owl, fox and mouse's home. In what ways are they different? What materials do they use? How does their home protect them and keep them warm?

Can you create one of the homes either through drawing or making a model? You can use any materials you would like.



#### ACTIVITY 7

Animals use woodlands as places to shelter from predators, rear young and find food. What animals can you think of that are associated with each of the woodland layers?

For example a bird may nest high in the trees but come down to the ground to feed.

### ACTIVITY 8

Trees provide multiple benefits for people, animals and the environment. Wildlife such as the Scottish wildcat are endangered due to loss of forest habitat.

Design a poster campaign around why we need to protect our woodlands.



#### **ANIMAL TRIVIA #8**

In which habitat would you find squirrels, deer and woodpeckers?

.....



## **FARMLAND & CROFTLAND**

Martha is on the search for the elusive **pine marten** as she has been told one might be hurt. She and Gibson have to cross farmland to get to the spot where the pine marten might be in the woods. Gibson needs to be careful that he doesn't scare any of the farm animals as they pass through and stay on the lead. Help them complete each challenge as they make their way towards the woodland edge. Can you find the pine marten in the picture below?



### ACTIVITY 1

Finish the other half of this symmetrical butterfly picture.

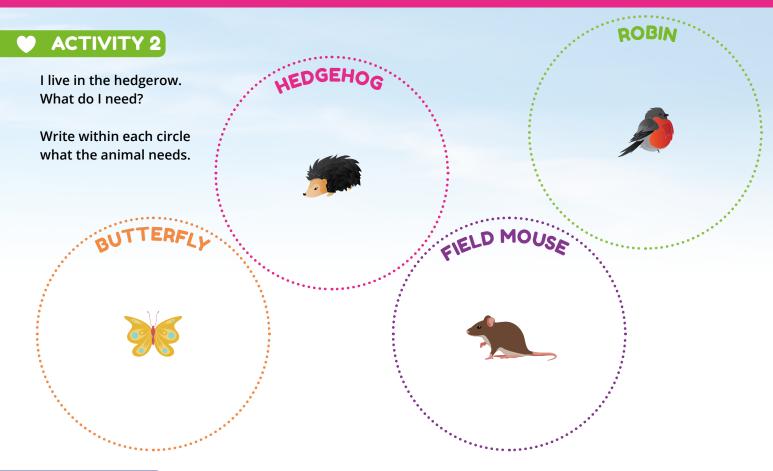


#### **ANIMAL TRIVIA #9**

Do deer migrate (travel with the seasons)?



## **FARMLAND & CROFTLAND**



### ACTIVITY 3

When walking in the countryside it is really important you stick to the Countryside Code.

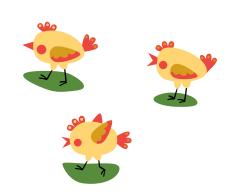
Create a leaflet about the Countryside Code and the important rules you must stick to and why.



### **%** ACTIVITY 4

Chickens are regularly kept on farms and love to spend the day having dust baths and pecking around looking for insects. At night they need to be locked up in a coop so they are safe from predators such as foxes.

Can you design a chicken coop to house four hens? You will need to think about how they will get in and out, where they will sleep and how you will make it a safe place for them.





Which plant grows in the desert and can store water in its stem?



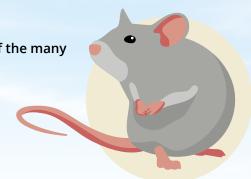
### **FARMLAND & CROFTLAND**

#### **ACTIVITY 5**

Read or listen to a book that has a countryside theme, or about one of the many animals that live on farms and in fields.

One example might be The Town Mouse and the Country Mouse: www.youtube.com/watch?v=6Kh-pwmB4dA

What book did you choose and what did you learn?



### ACTIVITY 6

Barn owls are typically seen in open countryside and may nest within barns. They have incredible senses such as excellent hearing and unique eyes which help them to see in the dark when they are out hunting. As their eyes are shaped like tubes and not balls they are unable to move them and instead turn their heads in order to see!

Using toilet roll tubes, make an owl viewer. How much can you see without turning your head? You can also add an owl mask on the front and be an owl for the day!



### ACTIVITY 7

Thousands of years ago Scotland was covered in farmland and croftland. This land would have been home to many species of wildlife before towns and cities were built.

Research the history of your home town or village. Maybe your house was built in a field? What animals do you think would have lived there before?



#### ACTIVITY 8

Watch this short video clip about a badger's sett underground. Are there any similarities between the way we live? What would it be like if we lived the same way as the badger?

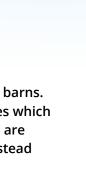
www.bbc.co.uk/teach/class-clips-video/how-do-badgers-live-underground/zhkpy9q



#### **ANIMAL TRIVIA #11**

An owl is mostly nocturnal, what does this mean?





#### **CLIMB A MOUNTAIN!**



What is an underground home for an animal called?



### **♥** ACTIVITY 1

Rabbits and hares have very powerful back legs in order for them to run fast to escape predators.

Complete a short run in your garden or park and time yourself, how long did it take you? Do you think you were faster than a rabbit? Maybe you could race a member of your family and see who is the winner.



### **ACTIVITY 2**

Ben Nevis is the highest mountain in Scotland and stands at 1,345 metres tall. If you were climbing 500 metres every hour, to the nearest hour, how long would it take you to get to the top?

..... hours

### ACTIVITY 3

Using your hands and a torch, make shadow puppets of some of the animals found in Scotland's mountains such as a deer, eagle or butterflies.



#### **ACTIVITY 4**

Did you know heathlands are the most important area for reptiles in the UK? One of Scotland's snakes, the adder, is usually found in the summer warming themselves in the sun on a rock. In the wintertime, when it is colder, they will hibernate.

Ancient Egyptians worshipped snakes and the pharaohs wore crowns with a snake, usually a cobra, attached to the front.

Make a snake headband or crown. What colours will you use? What type of snake is it?

#### ACTIVITY 5

Look at a map of Scotland and identify areas of heathland and mountains. Make a list of the names and some interesting facts about them.

Are there any near where you live?

### ACTIVITY 6

Heathlands and mountains are harsh environments to live in. Pick one of Scotland's plants or animals who live in this habitat and investigate how they have adapted to survive in the conditions.



#### **ANIMAL TRIVIA #13**

A habitat with ice covered land and cold temperatures is called a?



### **ACTIVITY 7**

Can you find these bog related words within the wordsearch?

GORSE ADDER TOAD MARSH DRAGONFLY

BRACKEN PEAT HEATHER WATER BEETLE SKYLARK

0	U	D	G	0	R	s	E	w	E	P	Т
К	w	R	V	G	В	R	ı	U	М	В	0
J	L	A	D	D	E	R	Т	н	D	R	A
V	Y	G	Т	N	К	E	V	z	J	A	D
С	D	0	0	E	L	К	С	×	М	С	G
В	E	Z	E	N	R	L	С	G	A	K	S
R	N	F	L	P	K	В	J	Y	R	E	F
a	w	L	Y	L	0	J	E	D	S	N	R
S	К	Y	L	A	R	к	В	E	Н	w	A
N	D	G	P	E	A	т	R	S	Т	ı	т
G	0	Y	0	В	V	L	U	Н	L	L	0
н	E	A	Т	н	E	R	К	J	N	P	E



What animal carries a home made of bone on their back?

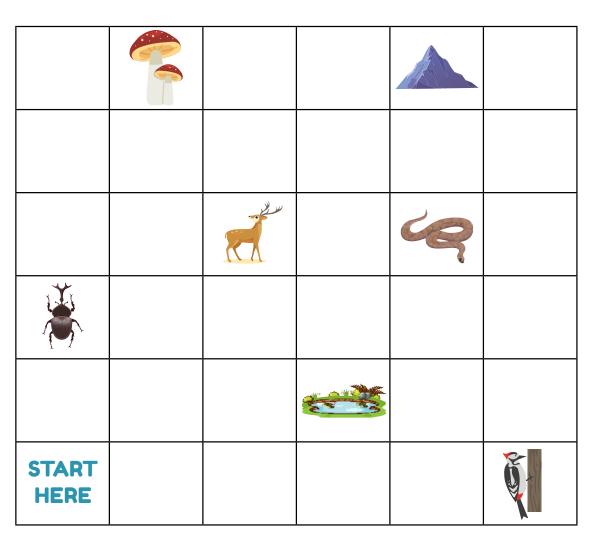


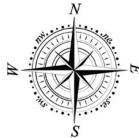
### ACTIVITY 8

Compasses have been used to find directions for over 2,000 years. When walking in the mountains it is very important to have a compass as it is easy to get lost. Used correctly the needle will point North.

Using the directions, find your way around our compass grid and answer the questions.

- 1. Move two squares north. What do you see?
- 2. Go three squares east, then one square south. Where are you?
- 3. Go one square south, then two squares east. Who is there?
- 4. Now, move three squares north, one square west. Who do you meet? Watch out! Don't step on him!
- 5. Go two squares west. Who is there?
- 6. Go one square north, two squares east, and one north again. What do you need to climb?
- 7. Finally, go three squares west. What is the name for these?





ANIMAL TRIVIA #15

What is the name given to a Scottish mountain that is higher than 3,000 feet?

.....

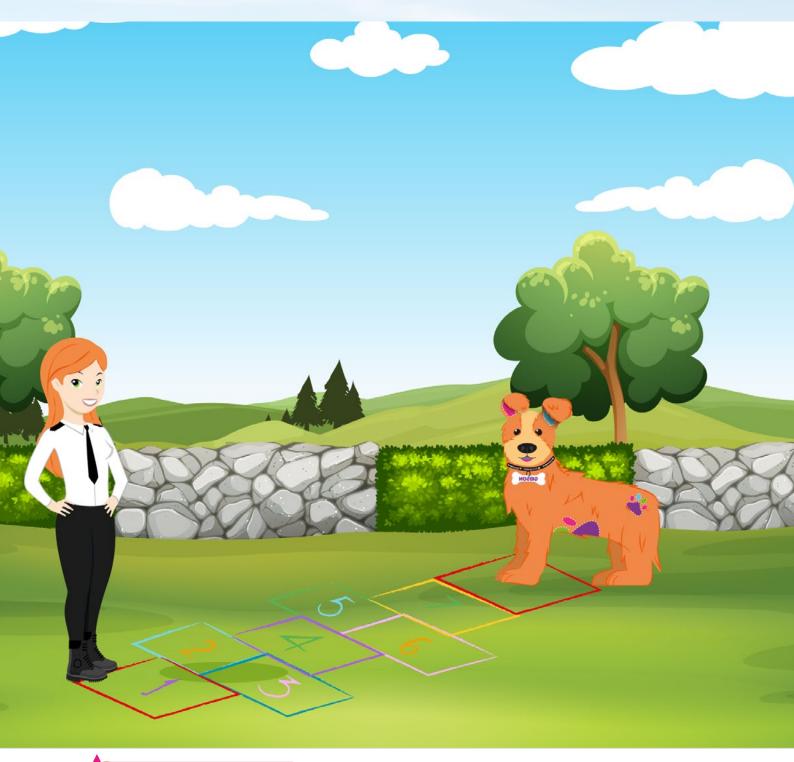




## **URBAN**

Did you know there are lots of animals that like to live in urban areas (towns and cities) but you often have to look very carefully to spot them?

Martha is playing hopscotch with Gibson. Why not try your own hopscotch at home? Whichever square you land on try out that activity for the number on the following two pages.





What is a male fox called?



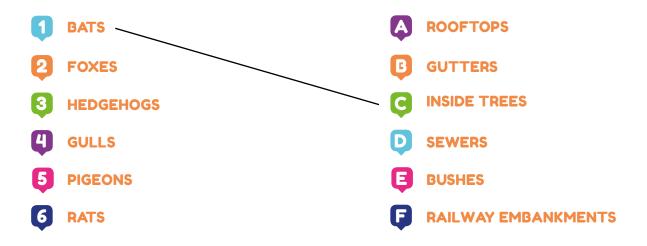
## **URBAN**

### ACTIVITY 1

There are six animals named below that can all be found living in urban areas. Can you identify where they might build their home in this picture? Why would they choose this place?

Match each animal to their home in the town. Martha has done the first one for you.







Which feature makes bats very unique among mammals?



### **URBAN**



#### **ACTIVITY 2**

Lots of urban wildlife such as birds and foxes have been affected by litter, either by injuring themselves on it or mistaking it for food and eating it.

Accompany an adult and do a litter pick up on your daily walk. How much did you manage to collect?



#### **ACTIVITY 3**

Honeybees can thrive in urban areas as long as there are lots of flowers for them. They skilfully build honeycomb shells which are hexagonal shaped.

Draw a series of hexagonal shapes to build a honeycomb.

Why do you think this is a suitable shape for storing honey?

#### **ACTIVITY 4**

Animals living in urban areas regularly come into contact with humans.

Write a short paragraph about the threats to urban wildlife.

#### **ES ACTIVITY 5**

Mandala means circle in the ancient Indian language of Sanskrit. The mandala represents wholeness and life. You can find it in many religions such as Buddhism, Christianity, Islam and Judaism as well as Native American traditions.

Create your own picture of a nature mandala. Think of all the circular forms you can see in nature around you. Include animals and plants if you like. You can even stick on items you find in your garden or on a walk like twigs and leaves. Be as creative as you like!



#### **ACTIVITY 6**

Fireworks are becoming increasingly popular within urban settings, these can have a negative effect on wildlife living there and also on pets.

Design a campaign poster highlighting the dangers fireworks pose to animals.

#### ACTIVITY 7

Foxes are extraordinarily adaptable and are at home in urban and countryside areas. Foxes have been documented living in urban areas since the 1930s.

Research the difference between urban and rural foxes, how have they adapted to living within towns and cities.

Create a table to show your findings.

#### ☐ ACTIVITY 8

Using a digital camera or phone, take photographs of birds, insects, animals and plants you can either see in your garden or from your window.

Research and identify what species they are. How many different ones did you find?





Pigeons can find their way back to their nest from up to how many miles away?





### **ACTIVITY 1**

In 2020 the whole world has been affected by a virus named COVID-19. It has made a huge difference in the way we are living at the moment but there have also been changes in the way wild animals have been behaving. Investigate what differences have been observed during lockdown throughout the world. Do you think this is a positive thing for wildlife?

#### **ACTIVITY 2**

Present a talk to your family about an endangered animal. What does endangered mean? Why are they endangered? How can we help them?

### **%** ACTIVITY 3

In the box draw an animal that lives in the rainforest canopy. If you were an animal living in the rainforest canopy what would you need to be good at? List four things.

#### ANIMAL TRIVIA #19

What percentage of our oxygen comes from the rainforest?



#### **ACTIVITY 4**

In Islam, a miraculous female camel was sent by God to the people of Thamud in Al-Hijr, after they demanded a miracle from the prophet Saleh. It was called the She-Camel of God.

Look at the characteristics of a camel and work out how this helps them to adapt to their habitat in the desert.





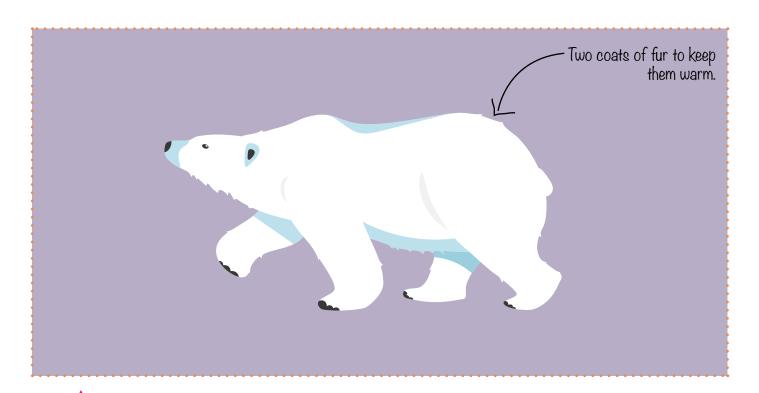
The Scottish SPCA helps injured and abused animals all over Scotland. Research an organisation that helps animals in a different part of the world and make a poster about them.



### **ACTIVITY 6**

Polar bears live in the Arctic where the air and water temperatures are very cold. They have special adaptations, or features, that help them live in that habitat like large, furry, webbed feet, a layer of fat, white fur that helps them blend in and dry off, and black skin to absorb the sun's heat.

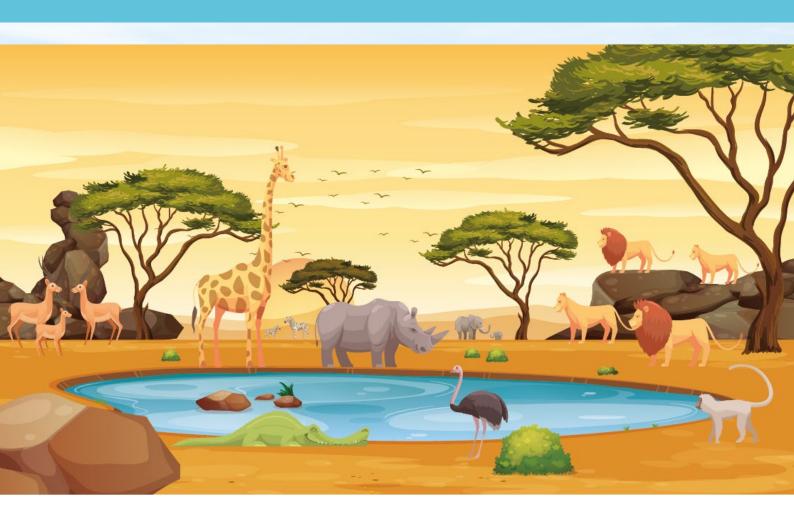
Label the diagram of the polar bear with its special features. How would these help them to live in the cold environment? Martha has helped you out with the first one.





Which part of their body do Arctic foxes use as a fluffy blanket?





### **ACTIVITY 7**

Look carefully at this picture of the African Savannah.
How many gazelles are in the picture?
What is the number of herbivores minus the number of carnivores?
How many legs are there in total?
How many animals have fur?
How many horns does the rhino have?
How many animals around the water hole have tails?
What percentage of lions are male?



#### **ANIMAL TRIVIA #21**

Which animal makes the loudest sound of any living creature?



### ACTIVITY 8

The animal kingdom is a diverse and vibrant place and the way animals move, look, and evolve is often taken and adapted by experts for their own products and developments. For example, bats have inspired the creation of new drones.

Choose an animal and focus on its special adaptions or features to design a new product. How would this product help us with our daily lives? Maybe it is something that will help animals in some way?

#### DRAW AN ADVERT FOR YOUR PRODUCT HERE



Elephants can smell water from how many miles away?



# **MARTHA'S DETECTIVE BOARD**

TRIVIA#	CLUE	ANSWER (A, B or C)	NUMBER OF LETTERS IN THE ANSWER
1	A. Doddle B. Pod C. Gaggle		
2	A. Sea parrots B. Sea clowns C. Sea budgies		
3	A. Wood white B. Grizzled skipper C. Swallowtail		
4	A. Three minutes B. Eight minutes C. Five minutes		
5	A. Disguise B. Camouflage C. Chrysalis		
6	A. Den B. Burrow C. Drey		
7	A. Habitat B. Home C. Environment		
8	A. Wetland B. Urban C. Woodland		
9	A. Yes B. No		
10	A. Palm trees B. Cactus C. Ferns		
11	A. Active during the day B. Active during the night		
12	A. Burrow B. Den C. Drey		
13	A. Arctic B. Tundra C. Iceland		
14	A. Kangaroo B. Tortoise C. Rhino		
15	A. Munro B. Summit C. Peak		
16	A. Wolf B. Cat C. Dog		
17	A. They are nocturnal B. They can fly C. They are small		
18	A. 500 B. 1,300 C. 2,000		
19	A. 10 B. 25 C. 40		
20	A. Tail B. Ears C. Paws		
21	A. Lion B. Bear C. Humpback whale		
22	A. 1 B. 2 C. 3		
		TOTAL = secret code	

Amazing – well done! Take a photo of this page and share it with us along with any other photos from the activities you have taken part in by getting your parent/carer to email us: education@scottishspca.org. Don't forget to include your first name, initial of your second name, class, school and local authority. For example I would be Gibson S, P7, Dogtastic P.S., Edinburgh.

We would of course love to see pictures of how you have used this booklet and the things you have made so if you are happy for these to be shared on our social media channels then please email the photos to education@ scottishspca.org with the subject "Please share my amazing creations."



Have you cracked Martha's secret code and helped unlock the next booklet? Follow the instructions above and we will let you know!

# **MY KINGFISHER**

















The Scottish SPCA's

ADVENTURE TAILS











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