

The Scottish SPCA's **ADVENTURE TAILS** Our online learning resource pack



BOOK 4 – CRAZY CRITTERS

This activity book belongs to:

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ANIMAL WISE[®]
SCOTTISH SPCA



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Hi, I'm Gibson! Welcome back to the Scottish SPCA's Adventure Tails. Congratulations on completing the third 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, Blue, Pink, Purple 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.

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



GIBSON



MARTHA





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 fourth 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



BIRDS

ACTIVITY 1

Many birds migrate to and from the UK every year. They will fly thousands of miles and miraculously some species will return to exactly the same spot!

In the winter swallows, swifts and housemartins will fly to Africa as food in Scotland becomes scarce but will return to the UK in Spring. Winter in many countries can be quite harsh so some birds migrate to warmer climates. This includes geese who leave Greenland and Iceland and spend the winter months in Scotland.

Look at the map below. Can you draw the migration path of a swallow? Which countries do they pass? Where do you think they may stop to take a rest?



ANIMAL TRIVIA #1

True or false: chickens can talk to their chicks in their egg?

Don't forget to record your animal trivia answers on page 27.

BIRDS

ACTIVITY 2

Did you know some birds can see more colours than we can, as they are able to see ultraviolet (UV) light? This helps them to find food when flying high up in the sky. They can even spot the smallest berry! The common kestrel is able to use its ultraviolet vision to find mice and voles easily by following their scent trail which reflects UV light. In fact, the world looks totally different to birds than it does to us.

Lie or sit outside and look at the sky, what colour is it? What colour might it look to the birds? Now look at the clouds and see if you can notice any that look like animal shapes?

Did you notice any birds in the sky when you were looking? What kind of birds were they?

ACTIVITY 3

Can you make a picture of a bird using different shapes? Think about the bird you want to make, what features it has, what shape its beak is and how this shape helps it to eat or find food. Write down the types of shapes you need to make your bird.



ACTIVITY 4

Did you know that some birds will stay with the same partner for most or all of their life? When they are looking for the perfect partner they will do special courtship rituals to attract their mate. Mute swans will entwine their curved necks into a loveheart. Peacocks will flash their beautiful tail feathers and male grouse will puff themselves up, strut around and leap into the air.

Can you strut your stuff and create a dance using movements inspired by birds courting? Perhaps you can teach your family it too!



ACTIVITY 5

Why do you think birds might sing? Think about the reasons humans talk or sing. Would birds want to say the same things? What might they be saying?

Write down or draw pictures to showcase your ideas.



ANIMAL TRIVIA #2

What time of day are crepuscular animals most active?

Don't forget to record your animal trivia answers on page 27.

BIRDS



ACTIVITY 6

In Scottish mythology it is believed that it is bad luck if you see an owl out in the daylight. Why might this be?

Think about what senses an owl has that make it easier for it to be a night-time bird (nocturnal). How can it hunt? How can it find its way around?



ACTIVITY 7

Birds have strong and powerful wings that help them lift their entire bodies off the ground. The shape of birds' wings and the way they flap them allows air to move much faster above the wing than below the wing as they soar into the air.

Think about how birds fly. Make some paper airplane designs based on birds and test them out.

Why not have a competition amongst members of your family and see whose plane flies the furthest? Which paper airplane design seems to be the best flier? Why do you think this is?

How did the wing shape and the length of the wings change how the airplanes fly?



ACTIVITY 8

Birds do not have a good sense of smell. Unlike some animals who recognise their young through their scent, birds will recognise their babies by sight or by call.

Can you match up the baby birds with their parents? In what ways do they look alike?

You may need help from the internet or books to get some clues!



ACTIVITY 9

Go outside and record a bird song or call. Play it back and listen carefully. Can you draw what you think the sound might look like using lines and shapes? Look up spectrograms on the internet if you need some help.

Do you think seeing sounds as you hear them could help you to understand and remember specific bird sounds?

SEALIFE



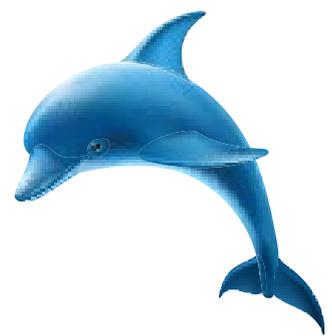
♥ ACTIVITY 1

Dolphins are well known for their extraordinary hearing, but did you know they have no sense of smell? This is because the blowhole (a dolphin's nose) is closed underwater. How much do you think smell can influence flavour?

Using three different foods, (for example chocolate, an apple or a slice of bacon) try eating a piece of each food while holding your nose. Describe what you can taste. Now let go of your nose and taste the food again.

Was there any difference?

Do you think dolphins have a good sense of taste?



ANIMAL TRIVIA #3

What is the largest species of dolphin in the world?

Don't forget to record your animal trivia answers on page 27.

SEALIFE



ACTIVITY 2

An octopus does not have a blind spot, meaning that octopuses can see everything that is going on in their environment, and are more aware of predators and prey than some vertebrates. Their vision is better than human's!

Can you test your blind spot? On a piece of paper make a small dot on the left hand side and a small + on the right hand side of the paper (there should be approx 15cm in between them).

1. Close your right eye.
2. Hold the image about half a metre away from you.
3. Look at the + with your left eye and slowly move your head closer while looking at the +.
4. At a certain distance, the dot will disappear from sight...this is when the dot falls on the blind spot of your retina.
5. Reverse the process. Close your left eye and look at the dot with your right eye. Move the image slowly closer to you and the + should disappear

At what distance did the blind spot occur?



ACTIVITY 3

Puffins are sometimes known as "clowns of the sea" and "sea parrots". This is because of the colourful markings on their faces, particularly their blue, yellow, red and orange beaks and black and red around their eyes. Their legs are also a bright shade of orange. Their beaks are only this colour in the spring and summer and are brightly coloured to attract a mate. Puffins stay with the same partner bird their whole life and will return to the same burrow every year to have their chicks.



Can you make a collage of a puffin that shows all of its bright colours?



ACTIVITY 4

Did you know animals living under the water are still able to communicate with each other using sound? Fish will make noises such as grunts, growls, chirps and pops while orcas will click, whistle and use pulses to speak to each other.

Can you create your own language using sounds? Test it out with a family member, could they understand you? What else might help when you are trying to communicate using sounds?



ANIMAL TRIVIA #4

What famous squirrel appears in Beatrix Potter books?

Don't forget to record your animal trivia answers on page 27.

SEALIFE

ACTIVITY 6

Harbour seals have large eyes and their vision under water is better than a human's. However, blind seals can also survive really well as seals' whiskers help them to feel vibrations through the water in order to find food or sense predators.

Try following the steps on the right.
Do you notice a difference?

Feeling sound vibrations:

1. Blow up a balloon and tie it off.
2. Find a partner and hold the balloon up to your partner's ear.
3. Put your lips gently up against the other side of the balloon.
4. Say something quietly to your partner
5. Notice what you can hear and feel.
6. Now swap and let your partner say something to you.
7. You should feel the vibrations of the sound waves passing through the walls of the balloon, both on your lips and on your ear.

ACTIVITY 7

Salmon rely on their sense of smell to detect predators, find food and make their way back to their spawning grounds every year. Research and produce a poster or a short essay on how carbon dioxide levels can affect salmon and what we can do to help stop the rise of carbon dioxide.



ACTIVITY 5

The pilot whale, despite its name, is actually a member of the dolphin family and is the second largest species of dolphin in the world. Pilot whales are more likely to become beached than any other marine animal and a mass stranding of long finned pilot whales occurred in 2012 in Fife, Scotland. Due to their close family structure, it's likely that once one of the animals became stranded the rest sadly followed. In North American totem beliefs the pilot whale symbolises people who listen, are compassionate and love being around friends.

Can you challenge yourself to complete one random act of kindness (RAOK) every day for a week? This could be making someone a card or gift, helping someone complete a task or giving someone a compliment.

How do you think these RAOK made the other person feel? How did you feel being kind to others?

ACTIVITY 8

Many humans eat fish as part of their diet. Use the internet to research the various methods that are used to catch fish. What is the effect of each method on the environment?

Choose one type of fish and make a fish and chip dish by drawing on a paper plate. Draw the fish and inside it write why that particular fish is threatened, for example by overfishing or pollution. Next, draw chips and inside them write ideas for helping the fish to survive, such as introducing no-catch zones.



PETS

Gibson has an amazing sense of smell and can use his nose to sniff out the tiniest treat, especially if he is hungry! Help Gibson to find all eight treats hidden in the picture and complete an activity for each one found.



ACTIVITY 1

If you have a pet, make a fact file of what he or she does in a normal day. Watch them to see when they drink or eat, when they get excited and want to play or when they sleep. What else does your pet do? Are there any times when you can tell what he or she is thinking?

Design a poster showing how your pet spends his or her time, what senses they might be using when they are doing certain things and what the animal might be thinking. If you do not have a pet think of a pet you would like to have and look up what their normal behaviours are or ask a family member or friend if you can study their pet.

ACTIVITY 2

A dog's sense of smell is thousands of times stronger than humans. Dogs have been trained to help sniff out all types of things including explosives and even cancer.

Can you invent a scent game for a dog? Think about what you want him/her to be able to find and what scents you might use for this. How would you teach them how to play? If you have a pet dog you can always try it out!



ANIMAL TRIVIA #5

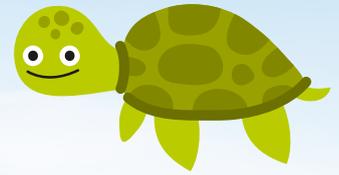
What type of animal is a pine marten?

Don't forget to record your animal trivia answers on page 27.

PETS

ACTIVITY 3

Tortoises' shells are made up of lots of little bones and are covered with keratin, the same substance your fingernails and hair is made of. A tortoise can feel when you touch, stroke or tickle their shell.



Can you make a picture of a tortoise and use different textures to stick on to its shell? You could use things like tissue paper, sandpaper, feathers or foil. How many different textures did you find? What do they feel like to touch?

ACTIVITY 4

Can you match the animal to its super sense description? Draw a line matching the animal to its super sense!

RABBIT



BUDGIE



HAMSTER



DOG



GOLDFISH



I can identify smells nearly 10,000 times better than humans.

My ears swivel independently, helping me to funnel sounds from every direction.

I can hear sound even though I do not have ears like you do.

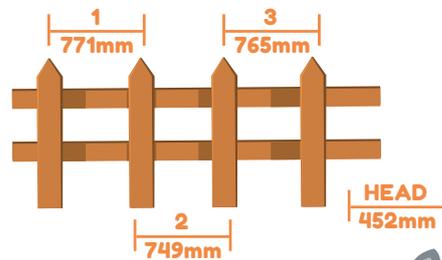
I have panoramic vision which means I can see in front of me, to the side, and behind me all at the same time.

I have an extraordinary sense of hearing and can hear and communicate with others of my own type using frequencies that humans cannot hear.

ACTIVITY 5

Cats use their whiskers to detect the size, location, and texture of objects, even in the dark. They are able to gauge whether they can fit through a tight space without being able to see it.

Look at the three spaces through the fence. Look at the size of each space and the size of the cat's head and whiskers. Which space or spaces will the cat be able to fit through?



WHISKERS PROTRUDE
317mm EACH SIDE



PETS

ACTIVITY 6

A cat's glowing eyes in the dark are caused by incoming light reflecting off what's called the tapetum lucidum, a layer of reflective cells. Light bounces off of these cells and reflects back to the cat's retina.

Try this activity to see like a cat!

You will need:

- An empty can
- A light or torch
- A rubber band
- A black piece of plastic like a bin bag
- Scissors

Instructions

- Cut a 4 x 4 square of the black plastic.
- Cut an oval in the centre of the plastic square.
- Use a rubber band to secure the plastic over the empty can.
- Grab your light and the can and head into a dark space.
- Hold the can around your chest and have a partner shine the light into the can.

Observe what happens – what did you notice?

ACTIVITY 7

Animals are capable of a range of emotions, such as happiness, sadness, empathy, grief, curiosity, anger, anxiety and fear.

Think of an animal and write a short story about a day in its life where it experiences all of these emotions. What happens in the story that makes it feel that way?

ACTIVITY 7

Rabbits have excellent hearing and, due to the shape of their ears, can pick up a sound from over two miles away! When a rabbit's ears are moving forward and backward this means their hearing senses are hard at work. Did you know they can move their ears independently of each other to help them hear if danger is approaching?

Some folklore states that rabbits can even predict the weather perhaps through hearing vibrations in the air, for example:

- Rabbits go to the woods before a severe storm.
- When rabbits are overweight in October, winter will be long and cold.

Find out some other animal related folklore by asking a parent or grandparent or looking on the internet or in books.

Can you make up your own folklore using what you know about animal senses and instincts?



ANIMAL TRIVIA #6

Are Scottish wildcats social or solitary creatures?

Don't forget to record your animal trivia answers on page 27.

FARM ANIMALS

ACTIVITY 7

Did you know that farm animals have feelings just like we do? The farmer needs to make sure he cares for his animals properly so they are happy and healthy. Complete this wordsearch and find some of the emotions farm animals can have:

PAIN

HAPPY

FEAR

SAD

EXCITED

HUNGER

LONELY

JOY

PLAYFUL

BORED

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



ANIMAL TRIVIA #7

How many toes in total does a Guinea pig have?

Don't forget to record your animal trivia answers on page 27.

FARM ANIMALS

ACTIVITY 2

Cows have the same social needs as humans and need to have contact with others of its kind. They are very sensitive, clever and playful animals. Cows actually have best friends within a herd and that is who they will choose to spend their days with. They can become distressed when separated from their friends.

Draw around your hand and on each finger of the handprint write down something that you think makes a good friend.



ACTIVITY 3

Complete these farm animal sequences :

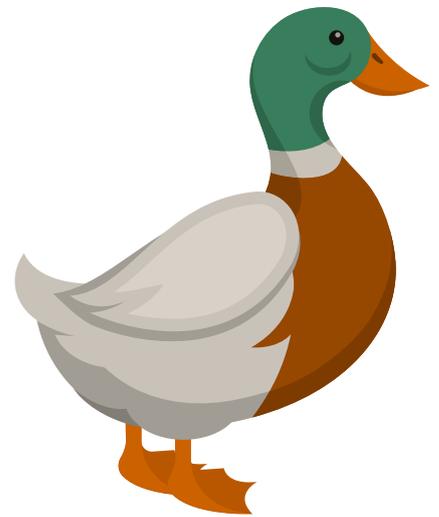
Pig, sheep, cow, pig, sheep

Horse, chicken, horse, pig,

Goose, goose, sheep, goose, goose....

Pig, goat, pig, goat, pig.....

Duck, cow, donkey, donkey, duck, cow....



ACTIVITY 4

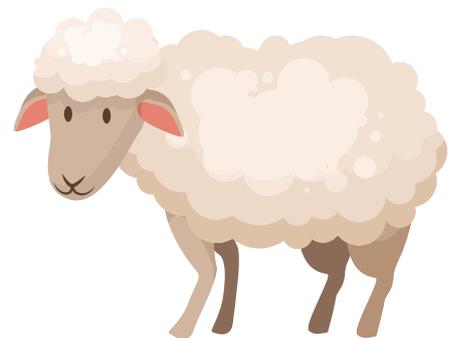
Cows love to have friends and can feel sad if they are living on their own.

Make a comic strip about a lonely farm animal. Include in the story that the animal finds a new friend and show how they feel. Perhaps they meet an animal that is different to them, maybe a different species? Think about who the animal might get along with.

ACTIVITY 5

In the Abrahamic traditions in ancient times a lamb was considered a possession of high value as sheep signified wealth. In the Bible sheep and shepherds are mentioned 247 times!

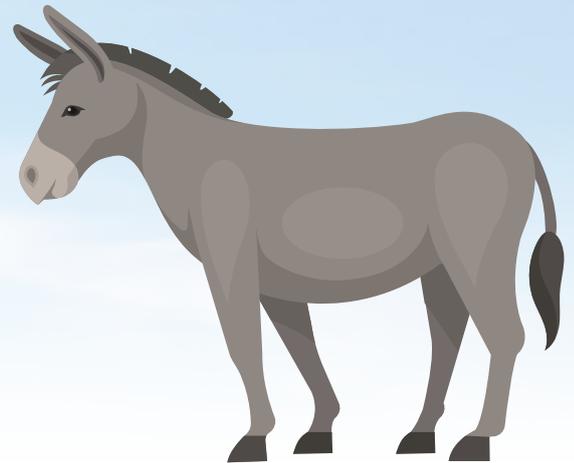
Can you make a fact file about sheep – remember to include their senses, any special abilities or adaptabilities in order to help them survive and any funny facts you can find.



FARM ANIMALS

ACTIVITY 6

Donkeys are very social animals, they like company and develop very strong emotional attachments with other animals. They are found all over the world and are used for jobs such as guarding sheep, carrying produce and donkey rides. They are also kept as pets.



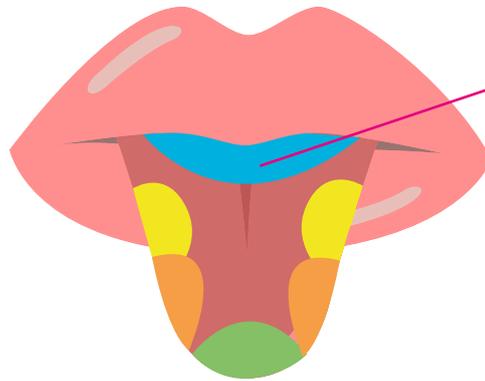
In some countries donkeys are not looked after as well as they should be, usually due to lack of understanding by their owners as to what they need.

Design a leaflet educating people about the needs of donkeys and how they should be cared for.

ACTIVITY 7

Did you know cows do not have any top teeth and instead use their tongue to wrap around the blades of grass and pull them out? Cows have around 25,000 taste buds, that's 2.5 times more than a human has!

Complete this tongue map matching the different taste buds to where they are on the tongue.



BITTER

SOUR

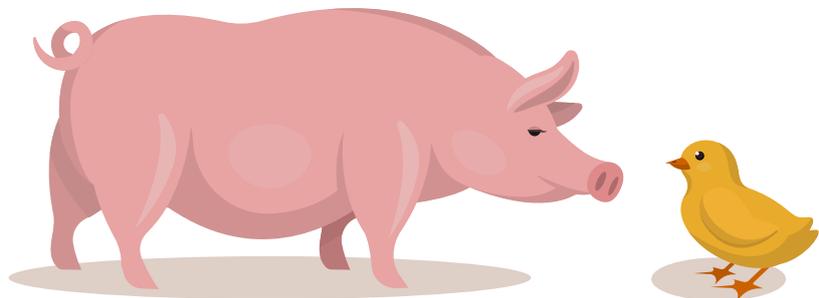
SWEET

SALTY

ACTIVITY 8

Even farm animals love to play! Design a toy for a farm animal that encourages them to use their senses.

Think about what their super sense might be to help you with your design.



ANIMAL TRIVIA #8

What is the oldest cattle breed in the world?

Don't forget to record your animal trivia answers on page 27.



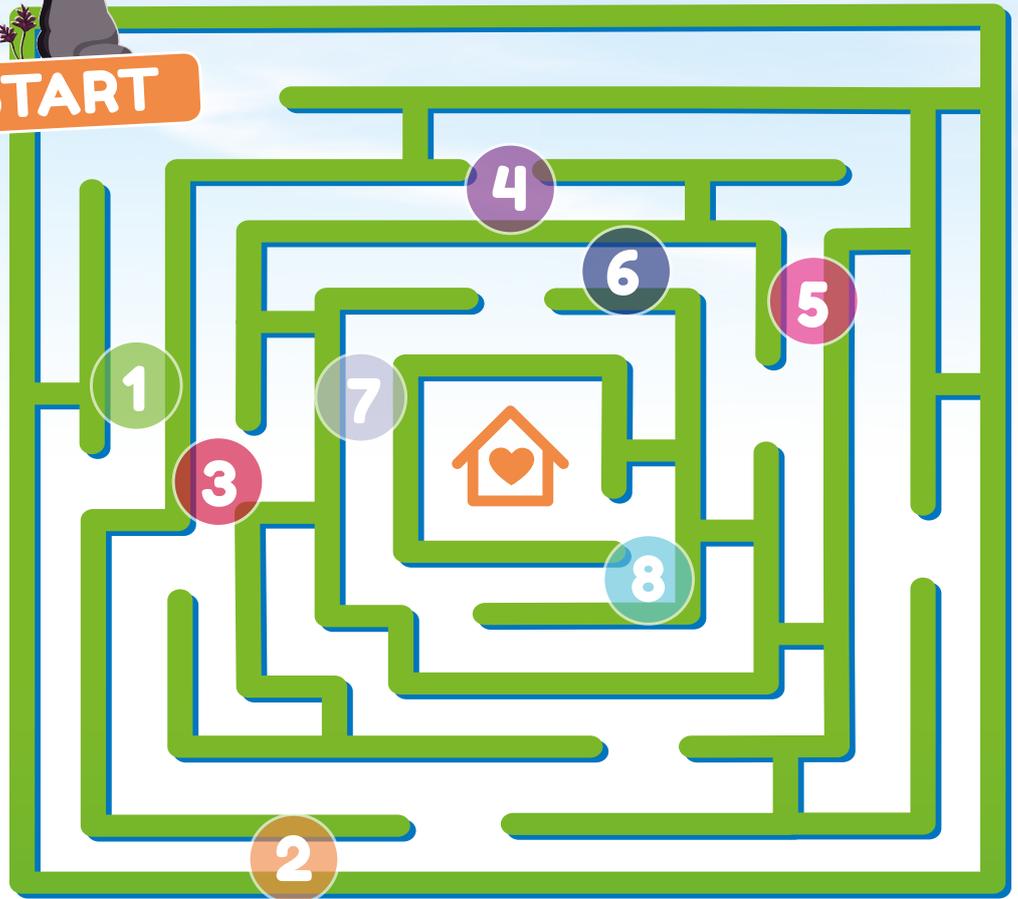
WILDLIFE



START

Badgers are creatures of habit and will follow the same path between their sett to their foraging ground. This badger has lost his way while sniffing out some food with his keen sense of smell.

Can you help him find his way back to his sett completing some activities on the way?



♥ ACTIVITY 1

Plan a walk inside or outside, maybe around your house or in your garden.

As you walk, write down all the smells you find. How many smells did you smell? Which was the best one? Which was the worst one?

📊 ACTIVITY 2

Bats find their food at night through echolocation. As they fly they will make sounds and the returning echo of this sound gives the bats information about anything that is ahead of them, including the size and shape of an insect and which way it is going.

Bats can eat around 8,000 insects each night.

Calculate how many insects they would eat in a week.



ANIMAL TRIVIA #9

How many stomachs does a dolphin have?

.....
Don't forget to record your animal trivia answers on page 27.

WILDLIFE



ACTIVITY 3

A fox has excellent hearing and sense of smell, and depends on these two senses in locating their prey.

It can hear a mouse squeak 100 feet away and will dig in dirt or snow to catch it.

Draw picture of a red fox hunting for its food in the winter.



ACTIVITY 4

In Celtic religion the stag was a symbol for the god Cernunnos, "The Horned One". Cernunnos was often described as having antlers himself, and was a god of the forest and wild animals.

Design your own antlers either by drawing or making them.

Why do you think stags have antlers?



ACTIVITY 5

How would you know if a wild animal was angry or afraid? What kind of behaviours would they display?

Imagine that you took a selfie of yourself when you were feeling angry. What would it look like?

Can you tell how an animal is feeling by looking at its face? What else would you have to consider?



WILDLIFE

ACTIVITY 6

Scottish wildcats have incredible hearing and can actually move each ear independently approx. 180 degrees. This helps them to locate food easily. The ear canal is deeper and more tapered than in humans, creating a funnel to carry sound to the eardrum.

Try this experiment to hear like a Scottish wildcat!

1. Make a cone shape out of a piece of paper or card.
2. Take your cone outside.
3. Put the small end in your ear.
4. Point the cone in different directions and listen carefully.
5. Notice how different the world sounds with and without the cone to aid your hearing.

What tiny sounds did you notice with the cone that you didn't notice before?

ACTIVITY 7

Ask someone in your household to help you by playing these sound clips. Close your eyes (no peeking!) and once you have listened to a clip answer the questions in the table.

How do you think animals use their sense of hearing? How might they respond to these sounds?

	What do you think made the sound you heard?	What did it make you think of?	How did the sound make you feel?
https://www.youtube.com/watch?v=08FYojxT5ik			
https://www.youtube.com/watch?v=153x-bn1k2H8			
https://www.youtube.com/watch?v=nZFFjn-9nOwU			
https://www.youtube.com/watch?v=10rH37YYv-KU			

ACTIVITY 8

Animals need senses for the same reasons we do. Senses help all animals find their way around their environments, to find food, to escape from danger, and to find others of their own kind.

Create a small project on a wild animal in Scotland and write about its senses and how those senses help it survive in the wild.



ANIMAL TRIVIA #10

What colour is a mountain hare's fur in the winter?

Don't forget to record your animal trivia answers on page 27.

REPTILES & AMPHIBIANS

Reptiles and amphibians are really good at camouflaging themselves by picking a rock, trees or grass that matches the colour of their skin. They do this to hide themselves from predators and also so they can sneak up on prey. Can you find the eight reptiles and amphibians hidden in the picture as you make your way round the activities?



♥ ACTIVITY 1

Frogs are known for their ability to leap and jump. They will use quick, powerful jumps to escape from predators, and can leap away from danger in an instant to hide safely in the water.

Try these challenges and record your results. You could compete against a family member or friend!

-  **Long Jump:** See how far you can travel in one big jump. Experiment with arm swinging vs. arms behind your back.
-  **Run 'n' Jump:** Now take a running start and see if you can jump even further!
-  **Long Jump Backwards:** Increase the difficulty by performing the tasks jumping backwards.
-  **Hop:** How far can you jump on one leg?
-  **Reach 'n' Stretch:** How far can your leg reach with one foot on the "start" line?



ANIMAL TRIVIA #11

What bird is the largest member of the grouse family?

Don't forget to record your animal trivia answers on page 27.

REPTILES & AMPHIBIANS



ACTIVITY 2

Adders are Scotland's only venomous snake. They are usually found in the hills, lying on a rock in the sun or moving through the long grass. Adders move along the ground by contracting their muscles starting at the head and moving their body from side to side, creating a series of curves.

Pretend you are an adder and follow the numbers in sequence to get to the sunny rock. You can move one space at a time up, down, left, right and diagonally.

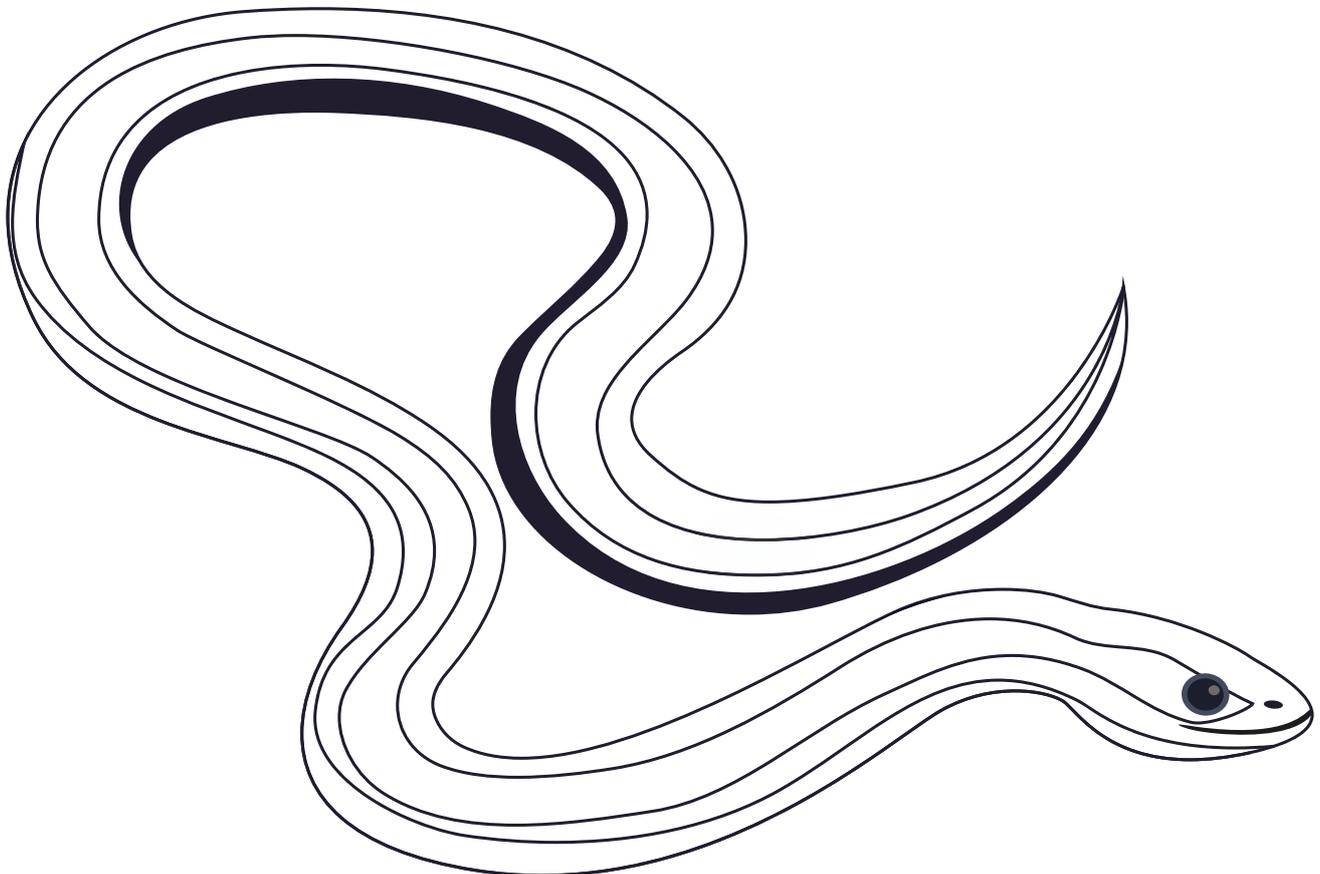
8	7	1	17	20	
1	0	4	15	6	8
3	4	11	0	1	1
7	3	9	2	1	1
1	2	5	4	1	2
START HERE	6	3	8	1	9



ACTIVITY 3

Slow worms look like snakes because they have no limbs but they are actually a legless lizard! They are quite different from snakes, as they have eyelids, can blink and have a round tongue instead of a forked one.

Can you colour in the picture of the slow worm?



REPTILES & AMPHIBIANS



ACTIVITY 4

Two frogs and the well is a fable written by Aesop, a slave and storyteller, believed to have lived in ancient Greece between 620 and 564 BCE.

Watch the video of the story of the two frogs: https://www.youtube.com/watch?v=kF3rdao_5uI
What do you think this story is trying to teach us?

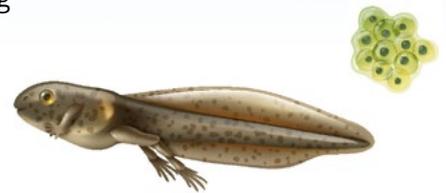


ACTIVITY 5

Even though tadpoles look more like fish, due to the shape of their bodies and their long, fin-like tails, they are actually baby frogs or toads. When a tadpole is changing into a froglet, it stops eating and absorbs its tail back in to its body to use as a source of energy and nutrients.

Some people take tadpoles from the wild to keep as pets back home.

Can you make a poster highlighting why this may be a bad idea and why tadpoles should be left in the wild?



ACTIVITY 6

Snakes have very poor eyesight, so they rely on their other senses to find their way about and to locate food. As well as flicking their tongues in and out to taste and smell the air around them they can also hear by feeling the vibrations alongside their jaws as they slither on the ground.

Make a snake follow the vibration.

What you need:

- Tissue paper
- Scissors
- Plastic wand or straw
- Tin plates
- Wool



Cut a 'snake' out of the tissue paper. Place the snake in the tin plate. Bend the 'head' of the snake slightly upwards, so that it is off the tin plate. Charge your wand by vigorously rubbing it on the wool. Put the wand near the head of the snake.

- What happens when the wand is near the snake?
- Slowly move the wand upwards. How long does the snake follow you for?
- What happens if you charge your wand more/less before you use it on the snake?



ACTIVITY 7

What are the six main groups of reptiles? List them and write some facts about each one.



ACTIVITY 8

Research why the **great crested newt** is endangered in Scotland. What does endangered actually mean?



ANIMAL TRIVIA #12

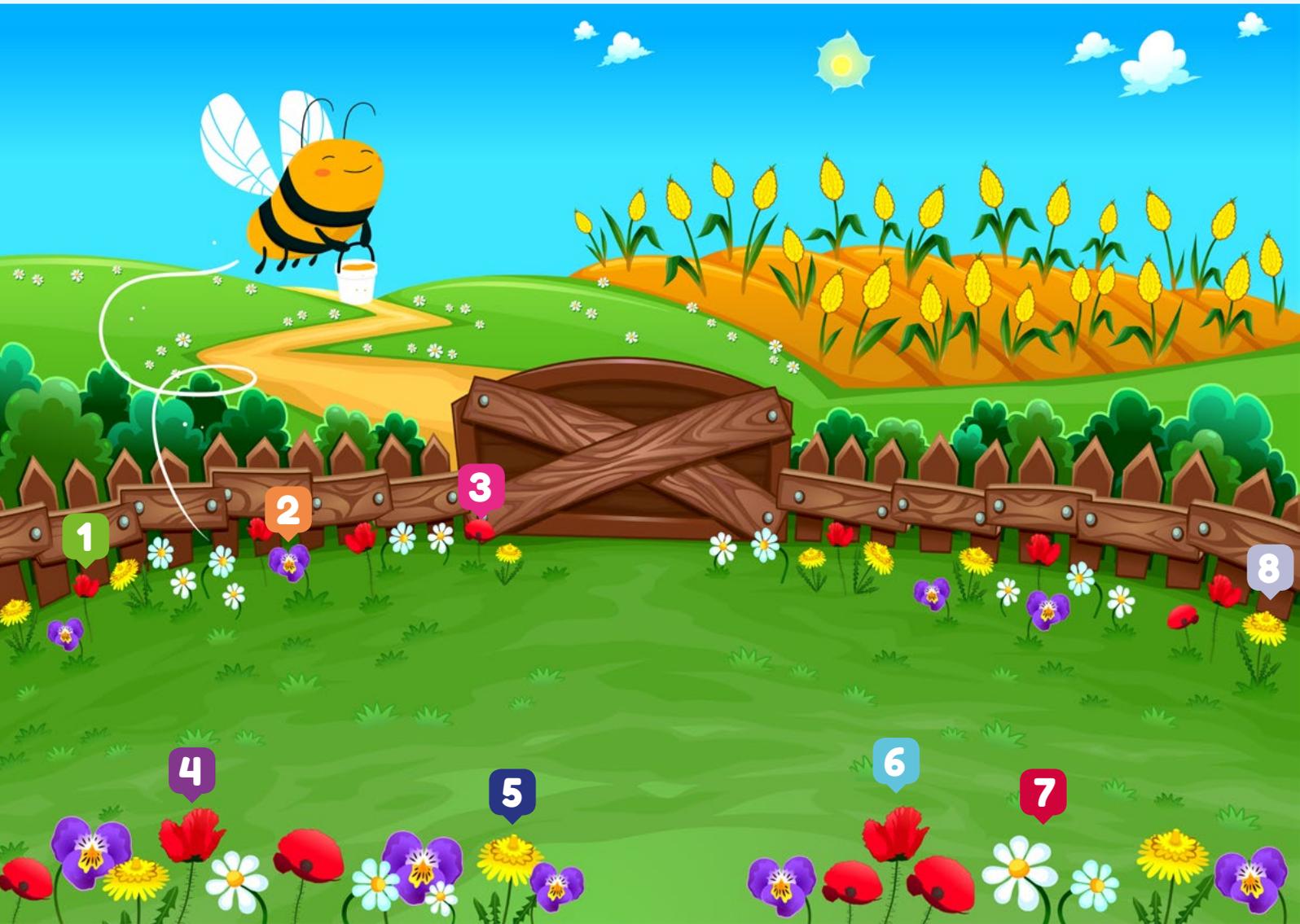
What breed of dog was originally called the **Aberdeen terrier**?

Don't forget to record your animal trivia answers on page 27.

INSECTS

Honey bees collect pollen and nectar as food for the whole of the colony, and as they do, they pollinate plants which helps the plants to reproduce. Bees recognise flowers from their colours and their scent but also from the static electricity they get when they fly close to a flower. This causes their hair to stand on end, a bit like the effect we can get from a balloon.

Help the bee to collect the pollen from each flower by completing the numbered activities. What colours do you think they like best?



♥ ACTIVITY 1

Bees do not have very good eyesight, so it can be a mystery as to how they find their way back home. However, bees are very clever and can use a combination of sunlight and mental maps of their surrounding area to ensure that they never get lost!

Try this bumble breathing to relax:

-  Sit somewhere comfortable and place the tips of your fingers in your ears and close your eyes.
-  Take a deep breath in through your nose and then hum quietly like a bee as you breathe out.

INSECTS



ACTIVITY 2

In a bug hotel there lived three spiders, two butterflies, one centipede, five ants, two ladybirds and a dragonfly.

Thinking about how many legs each insect has, what was the total number of legs in the bug hotel?

..... legs



ACTIVITY 3

Some invertebrates, such as butterflies, taste with different sense organs that are located on their feet.

Research how other insects taste – do they have tongues? How do we know this?



ACTIVITY 4

Ladybirds are also sometimes called lady beetles. Their bright colours and spots help predators know to stay away from them as they make a liquid that tastes very bad when eaten.

Find a flat round stone to make into a ladybird by painting it.



ACTIVITY 5

Ask five what or why questions about insects you have seen in your garden, and use the internet to find out the answers. For example, why do bees have stripes?



ACTIVITY 6

Investigate how worms use their senses to navigate in the world around them.

How might we be able to observe this using technology?



ANIMAL TRIVIA #13

What colour is a red kite's legs?

.....
Don't forget to record your animal trivia answers on page 27.

INSECTS

ACTIVITY 7

Have you ever visited a pond and noticed lots of bugs sitting on top of the water? How do you think they float?

The molecules in water want to stay together so they generate a force called surface tension. If the force that the insect foot makes on the water is less than the surface tension of the water the bug will float.

Try this experiment...

What You Need

- Card
- Basin or pan of water or bathtub
- Scissors

What to Do

Fold the card and draw a bug so its back is at the top of the fold and draw large, wide feet. Do not crease the fold on the paper tightly; if possible leave it lightly creased only. Cut out your bug. Bend the feet back so your bug stands up

Gently place the bug in the water so its feet stand on the surface of the water. Once your bug's legs absorb enough water, it will no longer float.



ACTIVITY 8

Describe an adaptation of a body part, shape, or behaviour that helps an insect survive in its environment (e.g. the snow flea has an amazing adaptation during the winter to enable it to remain active, which is anti-freeze blood!)



ANIMAL TRIVIA #14

What is one of the most iconic animals associated with Scotland?

Don't forget to record your animal trivia answers on page 27.

MARTHA'S DETECTIVE BOARD

TRIVIA #	CLUE	ANSWER (A, B or C)	NUMBER OF LETTERS IN THE ANSWER
1	A. True B. False		
2	A. Nighttime B. Midday C. Dawn and dusk		
3	A. Bottlenose B. Orca C. Hector's dolphin		
4	A. Squirrel Nutkin B. Squirrel Seedkin C. Squirrel Jo		
5	A. A rodent B. A mustelid C. An amphibian		
6	A. Solitary B. Social		
7	A. 16 B. 12 C. 14		
8	A. Friesian B. Highland C. Devon		
9	A. Five B. One C. Two		
10	A. White B. Grey C. Brown		
11	A. Pheasant B. Capercaillie C. Red grouse		
12	A. West Highland terrier B. Scottish terrier C. Pug		
13	A. Red B. Purple C. Yellow		
14	A. Kangaroo B. Red deer C. Whale		
		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!

RECORD ALL YOUR CREATIONS HERE



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