

# What's That **SNAKE?**

Herefordshire's  
reptiles

A pack for  
primary schools

Activities and  
Factsheets for KS1 & 2



A partnership project between  
Herefordshire Amphibian and Reptile Team (HART)  
and Herefordshire Nature Trust

Pack created by Nigel Hand and Jo Polack

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Welcome to our world!



If we give children the chance to learn about reptiles as **hidden treasures of Herefordshire**, they will look after their habitat for years to come.



So, we have filled this pack with information about Herefordshire's snake and lizard **habitats, lifestyles and conservation needs** as well as ideas on how to explore this creatively and in a way which meets your school's learning needs.



**The DVD** functions as an exciting learning tool in itself, providing additional images and information for all areas covered in the pack. In showing movement, colour and sound it can also be a basis for inspiring children in poetry, art or drama.



**Why not use this pack for a whole reptile project?!**

We recognise that the curriculum is undergoing changes and many schools will be moving towards more topic based learning.

On p. 2 we have suggested where cross-curricular links occur. p. 1 lists just some of the science curriculum areas met.

The contents page should help if you wish to use the pack to support a particular subject area. E.g. p. 11 food webs or p. 12/13 animal's yearly cycles or p. 22 exploring myths. p. 21 shows how to turn your outdoor area into a reptile friendly habitat.

We know that for some people snakes are a source of fear rather than love at first sight. If you are keen to introduce this fascinating and rich topic to your school but have concerns about how best to do so please contact Nigel Hand. (Contact details p. 34).



[www.herefordshirewt.org](http://www.herefordshirewt.org)



[www.herefordhart.org](http://www.herefordhart.org)

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# Contents

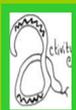
- 1 & 2 Snakes delivering the **curriculum!**
3. **Adder** fact sheet
4. **Grass snake** fact sheet
5. **Slow-worm** fact sheet
6. **Lizard** fact sheet
7. Snake **sensations** fact sheet
8. **Foody facts!** Prey/predator fact sheet
9. **Food chain** activity / introducing producer & consumer.
10. **Food chain** activity.
11. **Food web** activity
12. **Year in the life** of adders and grass snakes fact sheet
13. Year in the life of slow-worms and lizards fact sheet
14. Year in the life of adders fact sheet
15. **Year in the life.** Your go! Activity sheet
16. **Camouflage** fact sheet
17. Camouflage activity
18. **Habitats** board game
19. Habitat board game counters
20. Habitat activities
21. Save space for snakes....at school! Making reptile habitat
22. **Myths and stories.** Reptile legends around the world
- 23 & 24. The story of Rainbow snake
25. The story of Maud and the dragon
- 26 - 28. Snake **sounds** and reptile **rhymes!**
- 29 - 33. **Make that snake.** Arty Ideas & cut outs.



The symbol to show an **activity** page



The symbol to show a **fact** page



These activity sheets are **instructions or descriptions of activities for teachers** rather than sheets to give straight to pupils.

The **activities** in this pack have been designed to help you deliver the **KS 1 & 2 science curriculum** areas: 'life processes and living things'.



Remember, though, that throughout the pack there are activities designed to explore reptiles (and therefore aspects of the science curriculum) through art, poetry & stories (p. 22 onwards). Page 2 introduces some of the cross curricular links that are possible.

The target KS1 or 2 as listed below are simply a guideline. You can adapt the activity to your class.

### Feeding relationships

Activity: Hungry Snake – a game	KS1/2	page 9
Activity: Eco-cubes	KS2 (simplify for KS1)	page 10
Activity: Food webs	KS2	page 11

### Growth, Nutrition and Reproduction

Activity: A year in the life of our snakes	KS1/2	page 15
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### Adaptation: Habitats - the links between animals and their environment

Exploring habitats of more than one species.

Similarities and differences in local environments.

Living things need protection.

Care for the environment.

Activity: Camouflage pick ups	KS1/2	page 17
Activity: Habitat board game	KS 2	page 18
Activity: Mapping snake country	KS2	page 20
Activity: Homes for sale	KS1/2	page 20
Activity: Save space for snakes	KS1/2	page 21

The **facts sheets** and **information** also link to the curriculum and cover the above, and more areas.

They can be:

- Given directly to older children to take information from.
- Read to younger children by you
- Read by you to extract information from for your own activities.

A whole project on reptiles and snakes using this pack can help you deliver all these curriculum areas and more!

**Science**  
 living things....  
 food chains...  
 habitats..  
 adaptation..  
 interdependence..  
 ..animal  
 reproduction...  
 senses

**Art and design**  
 Patterns...printing...outlines...  
 textures...sculpture...natural  
 materials...observing...exploring  
 materials ...pp 29-33

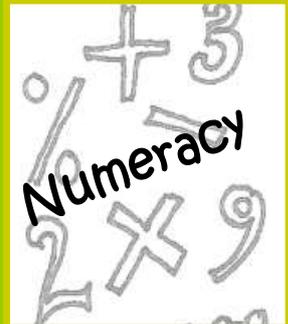
Look out for these symbols stamped throughout the pack to highlight snakes delivering all these different curriculum areas!

Geometry...eg. Discuss shapes of lizard vs. newt tails.  
 Cylindrical shape of slow-worm.  
 Adder more triangular head.

**A Snakes and lizards of Herefordshire project.**

**Design technology**  
 p. 21  
 Designing homes for reptiles....  
 making lizard land art....  
 p.29

Graphs to show relative life span/ number of young born.  
 Pp12 &13



Species fact sheets pp 7-10

PE...drama....can you move like a snake?

Measuring....comparing length of reptiles...size of young



Pp 12 & 13

**Literacy...**  
 p.26  
 p.27 Choosing vocabulary  
 Putting ideas into sentences and imaginative writing  
 p.20  
 Varying language for purpose  
 p.27&28  
 p.22-25  
 New science vocabulary...  
 carnivore...herbivore p9  
 R.E./Citizenship...  
 global creation myths  
 p23 -25

**Geography.....**  
 Mapping snake country  
 p.20  
 looking at where reptiles live in Herefordshire....what is the landscape like....identifying similarities and differences in terrain....exploring maps...  
 P.25 local landscape and dragon tales!

# 3 Introducing..... adders



We have a triangular head!

Vertical cat-like pupils



X marks the spot! We have an X or V mark on the back of our head.

All dressed up!  
We have a zigzag down our backs

Male is light grey with a black zig zag. Female is more reddish-brown.

Yummy! We're not too fussy! We eat voles, mice, lizards, slow-worms and occasionally small fledgling birds.

'Dance of the adder'  
Two males will wrestle to win the affections of a female!

The adult adder is 50 - 60 cms long.

Give me sunshine! We flatten our bodies out on warm days to take in as much heat as possible.



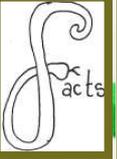
We give birth to live young

Shall we tell you where we like to live?

heathland...  
moorland...  
hillsides covered with bracken/gorse...  
woodland glades...  
old stone walls.

The adder does have a venomous bite but won't bite unless provoked.

# Grass snakes



We have a yellow and black collar around our neck



We have a forked tongue like all snakes!

Our bodies are usually an olive green colour.

Black bars along our sides

## Messing about by

**the river!** We like to live in damp areas like riverside meadows, near ponds or compost heaps. But they can also be found in hedgerows, on hillsides or woodland.

Our belly usually has a black and white chequered pattern

Go girls go! Female grass snakes grow bigger than males. Females can be 1m long. Males 70cm.

Black lines run down from eye to top lips

**Swim snake swim!**  
We're happy to swim!

We can live for 20 years if we're lucky.

Usually with our heads out of the water!

You may even spot us swimming across the River Lugg or River Wye.

**Egg-static!**  
Female Grass snakes will lay between 10 and 40 eggs a year.

Photo: WildPlay

Our baby grass snakes have an egg tooth to help it hatch out of the leathery egg.

**What's that smell?**  
If we feel threatened we will send out a foul smell. If this does not deter the predator we can play dead; lying on our back with our tongue hanging out!

# Slow-Worms



Let me tell you a secret....  
I am actually a member of the lizard family!

Our tongue is broad and flat.

Yum yum yum.

We'll eat all your slugs if you let us live in your garden.

Although we look like snakes we still have

Our scientific name 'Anguis fragilis' means 'fragile snake'. This is because, like lizards, we can drop our tail if picked up by a creature that wants to eat us. The bit of tail left behind will continue to squirm to distract the attacker whilst we slither away. Clever eh?!

**Can you blink?** We can! We have eyelids and blink because we are members of the lizard family – snakes cannot do this.

the leftovers of lizard legs on our skeleton!

We usually grow to about 30cm

**City slickers!** Of all the snakes and lizards we are the most likely ones to be found in a town.

Our skin looks polished and we have a dark stripe down our backs. Older males lose their stripe.

Females are coppery reddish brown. Males are light to mid brown.

We usually live for about 15 years.

Although there is a record of a captive slow-worm living 54 years!

We love big compost heaps, overgrown parks or churchyards, allotments, overgrown areas beside a road but will also live out on hills and heathland.

Our babies are born live (not in eggs) and can be 10cm long.



**Wet wet wet!** We really like to hunt after rain and just as it is getting dark.



We move slowly to eat slow things—is this why we are called slow-worms?

# Common Lizard



Although we are not as common as our name suggests!

My favourite places to live are where we can bask in the sun but run under cover if something startles us. We like fallen over bracken and stone walls and big grassy areas with lots of insects.

We are brown or green. But are often born black.

Our scales are coarse

We are small, very busy and fast (when we are warm!)



Males have more spots than females.

Stretch! We have long bodies and short legs

Hot hot hot! Like other cold blooded reptiles we like to sunbathe until our body temperature reaches 30 degrees Celsius. Then we might think about food!

Also known as ectotherms!

Female often has stripe down back.

We are usually between 10 and 16cm long

Male's belly colour is yellow or orange with dark spots.

We have pointed noses.

We can hear you!... we have ear holes - snakes don't.

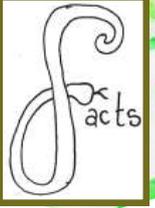
**Munch munch lizard lunch....** mostly we like to eat insects, spiders, moths, grasshoppers and earthworms. Is that OK with you?

We are the only reptiles found in Ireland! Hoorah for us!

**No I am not a newt!** We are easily mistaken for each other. Lizards have scales. A newt is slower. The tail of a newt is more triangle shaped.

Find me on heathland, moorland, scrub covered hills with bracken and gorse, woodland glades, old stone walls.

# Snake sensations



Snakes use their senses to catch food, escape danger and find a mate.

Snakes have poor eyesight so they use their other senses to make up for it.

The tongue is their major sense organ.

Snakes do not have outer ears like lizards have.

Snakes can feel vibrations through the ground. They tell it how much danger they are in by the movement and size of these vibrations.

**All snakes smell with their forked tongues!**

They have a tiny gap in their lips so they can poke their tongue through without opening their mouths.

Snakes stick their tongues out to pick up small scent particles from the air.

When it goes back into its mouth it touches a

sensory spot ●

on the roof of the mouth. This tells the snake what it has found!

Called the Jacobson's organ

## Snakes –a-slithering

Snakes have no legs – they don't walk like you. They have to use their strong muscles and scales to move.

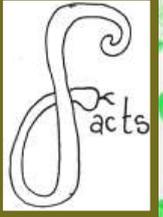
Their scales provide friction against the ground which ensures they can move in the right direction.

Snakes aren't always lying completely flat against the ground as they slither. They shift their weight as they move to help the motion.

Snakes wouldn't be very good at slithering over completely smooth surfaces like glass.

Some snakes are happy swimmers like our grass snake – they wave their body from side to side to move through the water.

# Prey...predator...



## A few foody facts about Herefordshire reptiles.



**Adders** eat lizards, amphibians (frogs, newts), small or baby birds and small mammals (mice, voles). Adders use venom to immobilise prey. They leave the venom to work then follow the victim's scent back to it. This avoids damage that could be caused by struggling with prey.

Adders and other reptiles like to bask until their body temperature reaches 30 degrees before they hunt.



**Common lizards** hunt insects, spiders and earthworms. They stun their prey by shaking it, and then swallow it whole.



**Grass snakes** feed on tadpoles, frogs, newts. They occasionally eat small mammals like mice and also small birds. Prey is swallowed alive. A lot of their hunting is even done under water. If under threat in water they will hide in weeds.

When a grass snake is attacked, it sometimes emits a yukky smelling fluid. If this doesn't stop the attacker, it will play dead, lying on its back, mouth open, tongue out until the attacker gives up. Then it will disappear into the undergrowth.



Slow-worm eating a slug!

**Slow - worms** emerge from hiding places to hunt at dusk or after rainfall. They are not particularly speedy reptiles and feed on slow-moving prey such as slugs, (especially white or grey slugs!) snails, spiders, insects, earthworms and other invertebrates.

Slow-worms are predated on by badgers, foxes, hedgehogs and big birds such as herons.

Crows, magpies, ravens and big birds of prey are the main predators of reptiles in Herefordshire. Humans are a major threat by destroying habitat or killing through fear.



Teacher notes



Activity

## The Hungry Snake game.

You need one blindfold

- The snake in the blindfold sits still.
- The rest of the children are snake food! Depending on the snake they could be vole (adder), slugs (slow-worm), tadpoles (grass snake).
- At a given signal children creep up and try to pass the snake without being heard.
- If the snake hears or senses their food they 'catch' them by pointing at them and the 'snake food' are sent back to the beginning.

The 'prey' could have noisy items to fetch just beyond the snake - winners being those who fetch the item without being heard.

Use this in conjunction with the 'foody facts' page on what snakes and lizards eat. (p. 8)

It can also lead to discussion of how snakes use their senses differently to us. (p.7)



Photo: WildPlay



These kids even got camouflaged to play!

Discussion

Reptile feeding relationships is an opportunity to introduce as much or as little new vocabulary as you wish!

The **prey** is the food an animal hunts.

The **predator** is the animal that does the hunting!

In food chains the sun gives energy to green plants and then....

producer



consumer...



consumer...



consumer...



You can also introduce the terms **herbivore**

Only eat plants

and

**Carnivore**

Eat other animals

# Predator and Prey



Teacher notes



## Eco cubes

**Aim:** To explore 'layers' of ecosystem & feeding relationships.

**You need** 5 cardboard boxes from small to large that will stack on top of one another. Each box represents a link in the food chain.

The children could make the boxes with you depicting the following on the sides of each box (they could be collaged from wildlife magazines or their own drawings) :

- The largest box is for the sun.
- The second largest is for plants/nuts/berries.
- The third largest for the herbivores and insects (slugs, mice, spiders, insects)
- The next one for the smaller carnivores ( snakes, smaller birds, weasels).
- The smallest box for the top carnivores (herons, birds of prey, badgers).



Stack the boxes largest to smallest on top.



## Discussion

- Use these cubes to talk about who eats what.
- How plant energy comes from the sun.
- What happens if the food on the level below the snakes runs out or is very low? Imagine the box shrinking smaller than the one above it. Will the whole stack fall?
- And what happens if the box above the snakes becomes huge with too many predators?

n.b. You could make the boxes specific to one snake or lizard's food chain - only depicting what eats them/what they eat.

Sometimes it seems harsh to be talking with children about creatures eating other creatures—especially those that we might also be trying to protect (like frogs or newts) but it *is* nature!

As long as things stay balanced with the right number of prey and predators nature can regulate itself. It is when prey or predator is allowed to become greater (often by human activity) that the 'chain' or 'web' becomes unbalanced.

# Food webs



Reptiles eat lots of different things not just one. This means the relationship between reptiles and their predators and their prey is more like a web than a chain.

**Can you draw arrows showing who eats who?**

Some creatures may need more than one arrow to or from them.

## A Grass snake food web



Photo: arhive



Photo: arhive



Photo: arhive



Photo: arhive



www.hart.org



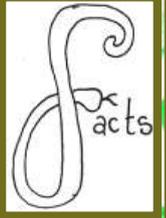
Photos: Jo Polack



Photo: arhive



# A year in the life of our snakes



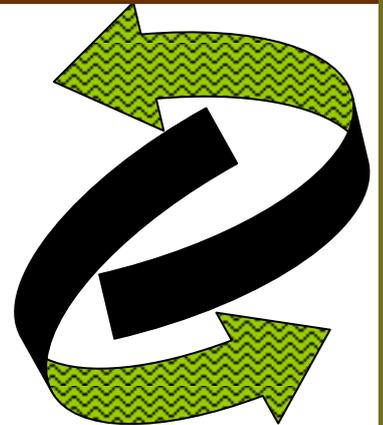
## Adder



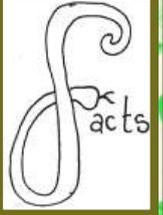
1. Adders **hibernate** from October to March when temperatures fall below nine degrees Celsius.
2. Males come out of their winter homes (hibernacula) 2-5 weeks before the females and **shed their skin**.
3. 'Dance of the adder': In Spring two males will wrestle to win the affections of a female!
4. Female **gives birth** to 3-15 live young (the adder is called 'viviparous' meaning gives birth to live young).
5. Babies are born between August and October.
6. New born adders stay close to the mother snake for a few days, before going off in search of food.
7. Females do not have babies each year as they do not have enough time in the winter to build up all their fat and energy for the next year.
8. Adders **can live** about 30 years

1. Grass snakes **hibernate** from October to March
2. Female lays 10-40 **eggs**, depending on her size, in June/July.
3. Eggs have leathery white shells.
4. Female grass snakes choose a **warm site** to lay their eggs, such as a compost heap or under rotting logs. They will often use the same place as other grass snakes. When they share like this there may be over a hundred eggs in the same place.
5. The females stay near the nest site for a few days. The eggs are stuck together which keeps them in clumps.
6. The young grass snakes **hatch out** in late August/September. They have an egg tooth to help them get out of the leathery eggs.
7. A grass snake **can live** about 20 years.

## Grass snake

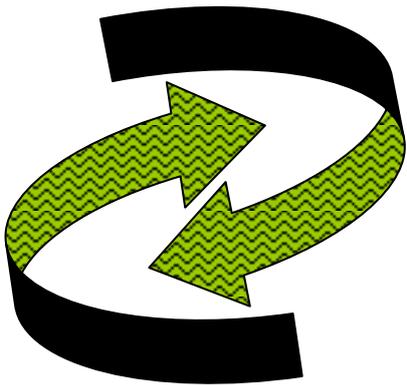


# A year in the life of our snakes



## Common Lizard

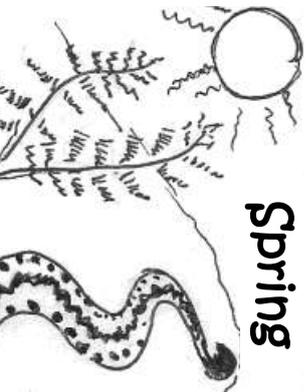
1. Hibernate October to March
2. A female common lizard gives birth to 3-6 live young which are 4cm in length.
3. Babies are born between June and September
4. The young grow in egg membranes inside the female lizard's body over 3 months. They usually break out of these sacks as she gives birth or after a few days.
5. They use their heads to break through the membrane rather than an egg-tooth like grass snakes.
6. Newborn lizards are often black.
7. After they are born they don't get any help from their mother or father. They move away quickly and feed a lot.
8. Common Lizards live about 7 years.



1. Slow-worms hibernate over winter.
2. Males will fight with each other to get to mate with the females.
3. Females may pair with several males throughout the breeding season
4. Female slow-worms give birth to 5-20 live young
5. Babies are about 10cm in length
6. When they are born slow-worms have a membrane around them which they break free of straight away.
7. Slow-worms can live for about 15 years in the wild.

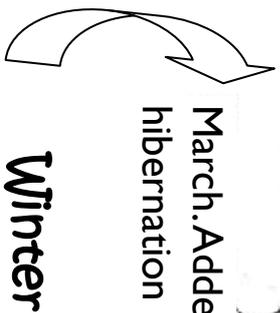
## Slow-worm





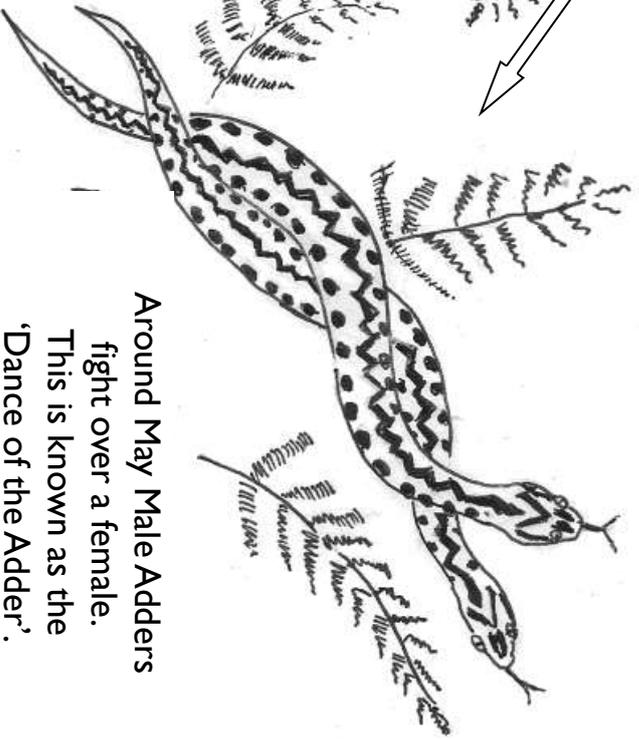
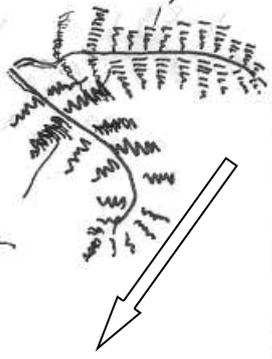
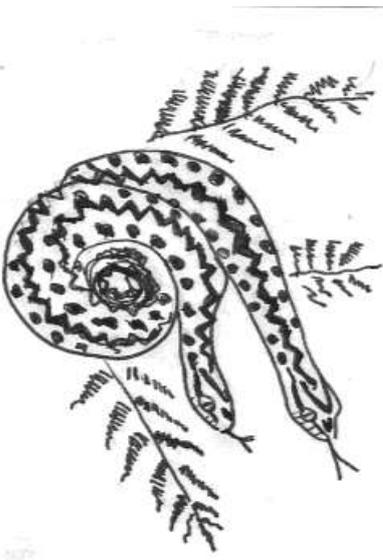
**Spring**

March. Adders come out of hibernation



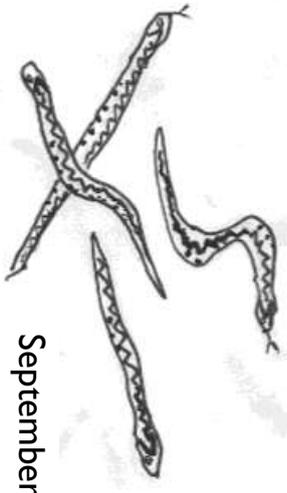
**Winter**

Adders hibernate from October to March underground in a hibernaculum



Around May Male Adders fight over a female. This is known as the 'Dance of the Adder'.

**Autumn**



September

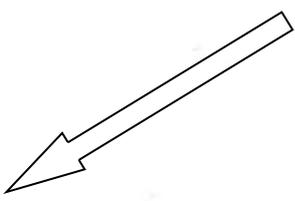
Baby Adders born live. (Adders don't lay eggs). They go into hibernation soon after birth.



**Summer**

From June to August Adders feed (mostly on voles, mice and amphibians).

**Life cycle of the Adder**



# A year in life of our snakes

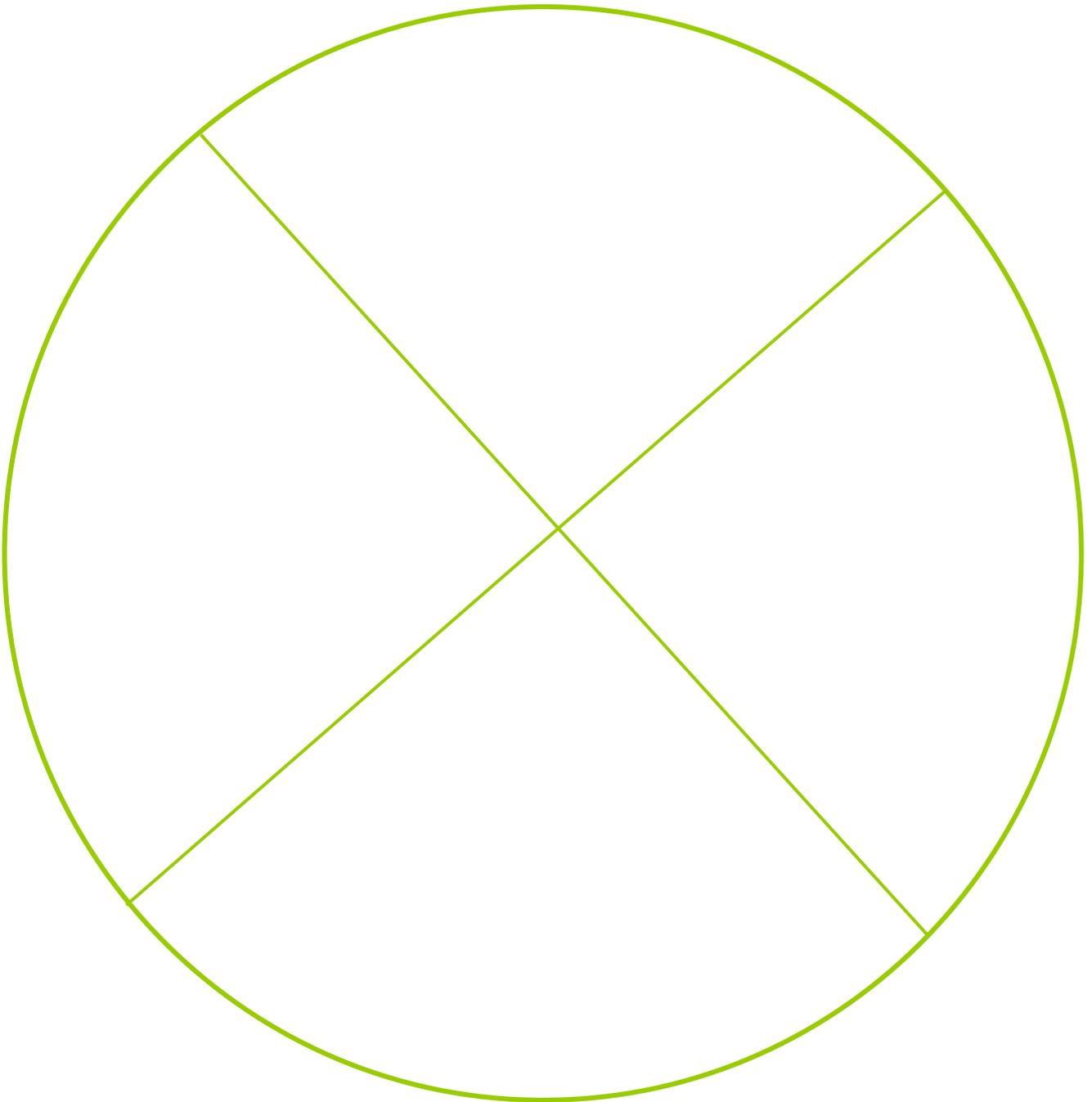


Look at the year of the adder pictures.

**Can you draw a year cycle** for the grass snake, the slow-worm or the lizard using the information you have just read?

Each quarter of this circle is a different season of the year.

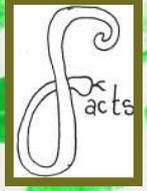
A year in the life of the .....



Suggestion: KS2: Draw their own snakes and write their own text.  
KSI: Cut out adder sheet and stick into quarters.



# Camouflage



blending in

disappear

hidden

**Camouflage is  
the art of not  
being seen!**

disguised

hard to see

**Why?**



**Many animals have a natural camouflage to avoid being attacked – especially whilst they are out looking for food or taking care of their young.**

A reptile's disguise is the pattern & colour of its scales as well as how it behaves



An adder curled up could be mistaken for bracken. Look at the patterns up close.

Lizards can dart around and then stop completely still on a stone wall or log and seem to disappear.



**Herefordshire snakes and lizards are all camouflaged. They blend in with the landscape where they live.**

**A bundle of slow-worms could look like dead twigs**



**A gorgeous green grass snake might be easily missed amongst long grass beside a river or around a slimy green compost heap.**



See dvd for good camouflage images



**Aim:** To introduce the concept of **Camouflage**.

You need to have a small grassy, nature or tree area.

### You need:

- 4 or 5 different coloured balls of wool. Two colours should be bright and stand out against the background eg bright red and bright blue. The others should be more muted greens and browns.
- A piece of card for each child with double sided tape on it. (black or white card shows up the range of colours best).



### Preparation:

- Cut up lots of strands of each colour - about 4 cm long.
- Before the children come out sprinkle the strands of wool around the area.

### Action!

Ask the children to collect as many strands of wool as they can find and stick them onto their card in a row **in the order they find them**.

Either give them a time limit and use this cut off point to talk about how the bright colours stood out and are on their card first or if they are enjoying it continue until most of the strands have been found and they can look at the order in which their colours go – i.e. mostly bright colours first. The ones that ‘blend in’ take longer to find.

**Discussion** Relate this to the an adder with its brown or grey zig zag markings hiding in the grass or a grass snake in a compost heap! The more it blends in with its surroundings the less likely its prey is to find it. Look at the DVD.



Camouflage is great to explore through art...making patterns...comparing markings.... shade and light.....using natural materials.....



There are children hiding in this forest! They camouflaged themselves with nature they found there.





# We need the right habitat to survive!

- Play in 3's or teams.
- Cut out the 3 reptiles from next page.
- Chose which player/team is which reptile.
- Place your reptile on the correct tail.
- Take it in turns to roll dice and move along your reptile.

Enlarge to A3 or bigger!

# Your counters to cut out for the habitat game



adder



Grass snake



Slow-worm



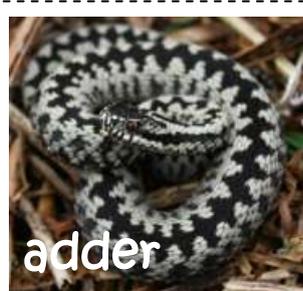
adder



Grass snake



Slow worm



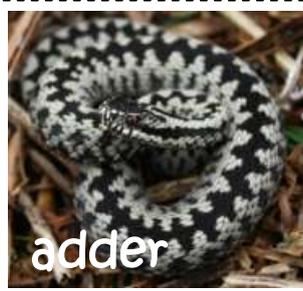
adder



Grass snake



Slow-worm



adder



Grass snake



Slow worm



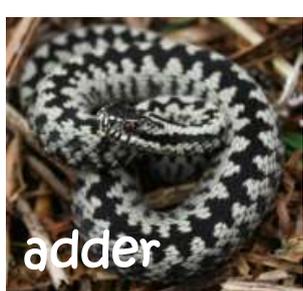
adder



Grass snake



Slow worm



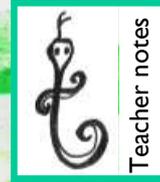
adder



Grass snake



Slow worm



For these two **habitat** activities the children can find information on where Herefordshire's snakes and lizards live from the fact sheets at the beginning of this pack, the enclosed leaflets and further research in books/internet (see list at end of pack).

## Mapping snake country!

- On one piece of paper – large or small children create a map showing the different types of landscape, hills covered in bracken, woodlands, towns around Herefordshire. Make sure this includes the sorts of places the snakes and lizards would live.
- Think up different symbols for each snake species.
- Give the map a 'legend' – a box where the symbol for the snake, habitats and landscape features are shown and named.
- On separate card draw and cut out little snakes/lizard symbols.
- Create a few clues for where each snake might go – decide a code, for example if it lives on a hill maybe a rhyme for the word 'hill'. Or a description not using the word itself: 'I live amongst a plant which is brown and scratchy'.
- Then children swap snakes, map and clues with a partner, or work in groups swap with another group and see if they can find the places the other snakes like to live.

Variations/extensions

Habitat mapping can be as imaginative as you like!

- Create old treasure maps - 'uncover the dinosaurs of our local lands'.
- Or link to food chains - create secret maps from one predator to another about where to find their next meal.
- Or a map for new snakes moving here to show them the good places!
- You could also make 3D maps – collages and recycled junk landscapes

## Homes for sale!

Create an **estate agent's window**. Each buyer and seller is a snake or lizard! The children can create posters describing the best features of their home: Sunny area for basking, well camouflaged, a cosy place to hibernate, lots of long plants to move through. The posters could have pictures of inside and out.

# Save space for snakes!

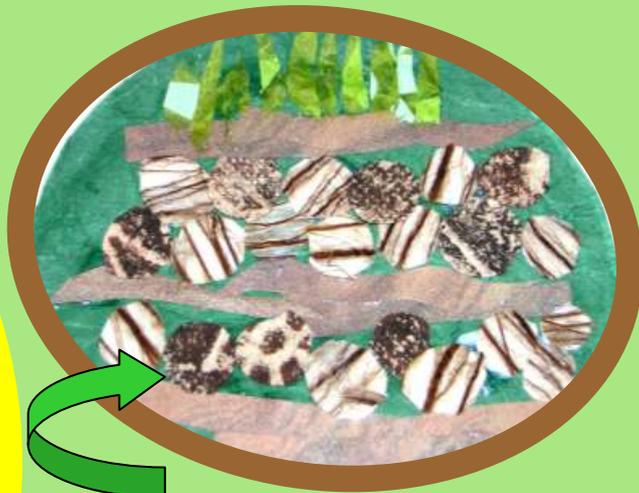


Do you have space at school to create habitats for grass snakes and slow-worms?

Leave an area of longer grass and wildflowers.



Yippeeee!



Build a reptile refuge. Logs and rocks covered with grass, grass cuttings and leaves.

In the sun, amongst long grass, put down carpet or pieces of roofing felt.

Hold a special snake celebration day! Ask friends and family—to spend a day helping create your reptile habitat.

They might have natural materials from their gardens you could use.



Create compost heaps out of grass cuttings, leaves and wood chips for hibernating and egg laying (grass snake).



Dig a pond to create food and hiding places. (Don't put fish in it!) Leave some long grass and boggy wet patches around the pond.



Design mini versions indoors first!

# Snake stories around the world



Slippery, hissing snakes are the stuff of myths and legends. Stories from many lands tell of adventures with snakes, serpents, lizards and dragons.

## Ireland

It is said that Saint Patrick stood upon a hill, using a wooden staff to drive the serpents into the sea, banishing them forever from Ireland.

One old serpent resisted, but Patrick made a beautiful box just like the snakes home and invited the snake to enter. The snake insisted it was too small and the two argued. Finally to prove his point, the snake entered the box to show how tight the fit was. Patrick slammed the lid closed and threw the box into the sea.

No more snakes in Ireland to this day!

Some are heroes carrying people in trouble on their backs.

Some are nasty and terrifying.

Each year in **China** is represented by a different animal. This is repeated in a cycle of 12. Snakes and dragons are two of the twelve.

Were you born on one of these years? What about your brothers or sisters, parents or grandparents?

**Snake**

1929, 1941,  
1953, 1965,  
1977, 1989,  
2001, 2013

**Dragon**

1928, 1940,  
1952, 1964,  
1976, 1988,  
2000, 2012

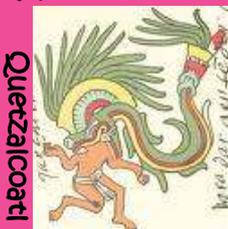
Can you draw these symbols?

## Indian snakeboats

The people of the Haripad village decided to build a beautiful temple. In it they would install an idol – a figure to worship. Someone had a vision that they should install a serpent idol which they would find in the *Kayamkulam river*. The exact location of the idol they would find under a whirlpool in the river. The people found the idol as the vision told and brought it back in a boat, escorted by devotees in other boats. In remembrance of this event a three day water festival is conducted each year. The villagers flock to enjoy this colourful festival of snakeboats.



## How chocolate came to Earth!



Quetzalcoatl was a plumed serpent God in **Central America** a long time ago. He took a plant from his brothers the Gods and gave it to his people as a special present. His brothers had guarded it jealously because they felt that the drink that made from it was only good enough for Gods.

Quetzalcoatl planted the small shrub with dark red buds on its long leaved twigs. He asked the people to feed it with rain and adorn it with flowers. The small tree bore fruit and Quetzalcoatl collected the pod. He took these to roast and taught the women how to grind it and mix it with water in calabash cups to make chocolate.

This mixture was sacred and bitter. (The origin of its Mayan name is kahau from Kab meaning bitter).

When the Spaniards came to **Central America** they mixed it with sugar and milk and made the drinking chocolate we know today.

1. In dreamtime our ancestors walked the song lines of the earth. The Earth they walked was a brown flatness. The only colours shone in the sky. After a storm, as the sun and rain met, magic colours hung in the air, spanning Australia: the Rainbow. But the Rainbow wanted to go on a journey too.

2. So the rainbow drank its own magic and writhed into life.

Each raindrop turned into a scale and each glimmer into a twist of muscle. It transformed itself into a snake. Its body a blaze of colour, it snaked its way down the sky to the edge of the earth. Its jaws were red, its tail violet. Its iridescent scales every shade in between.

3. The Rainbow Snake was massively heavy. As it slithered along, it carved a trench through the flat countryside. These became huge valleys. The mounds either side were mountains. The next rain which fell rushed through these valleys into rivers and pools. The earth was changed by the snake.

4. The Rainbow Snake travelled through the bush. Every now and then it raised its scarlet head and tasted the air with its flickering tongue. It felt vibrations and picked up voices but did not understand what they were saying.

5. One day, it found a happy laughing people whose language it partly understood and whose music made it dance. The dancers froze. The music stopped. Towering high above them, jaws agape, swaying to the music the people saw a gigantic snake with scales of every colour.

6. The snake looked down on them. People trembled with fear.

'Please do not be afraid. I am Rainbow Snake from the sky, I am happy for finally I have found people who make the music I have heard in my dreams.'

'In that case, you're welcome, friend!' said an elder of the tribe 'on with our celebrations!'

7. After all the feasting and partying Rainbow Snake coiled itself round the village and sheltered it from the wind. Its sides shaped the land during day and in the evening it ate and drank and talked with the villagers. It was a happy time.

In honour of the Rainbow Snake the people decorated their bodies as the snake was patterned.

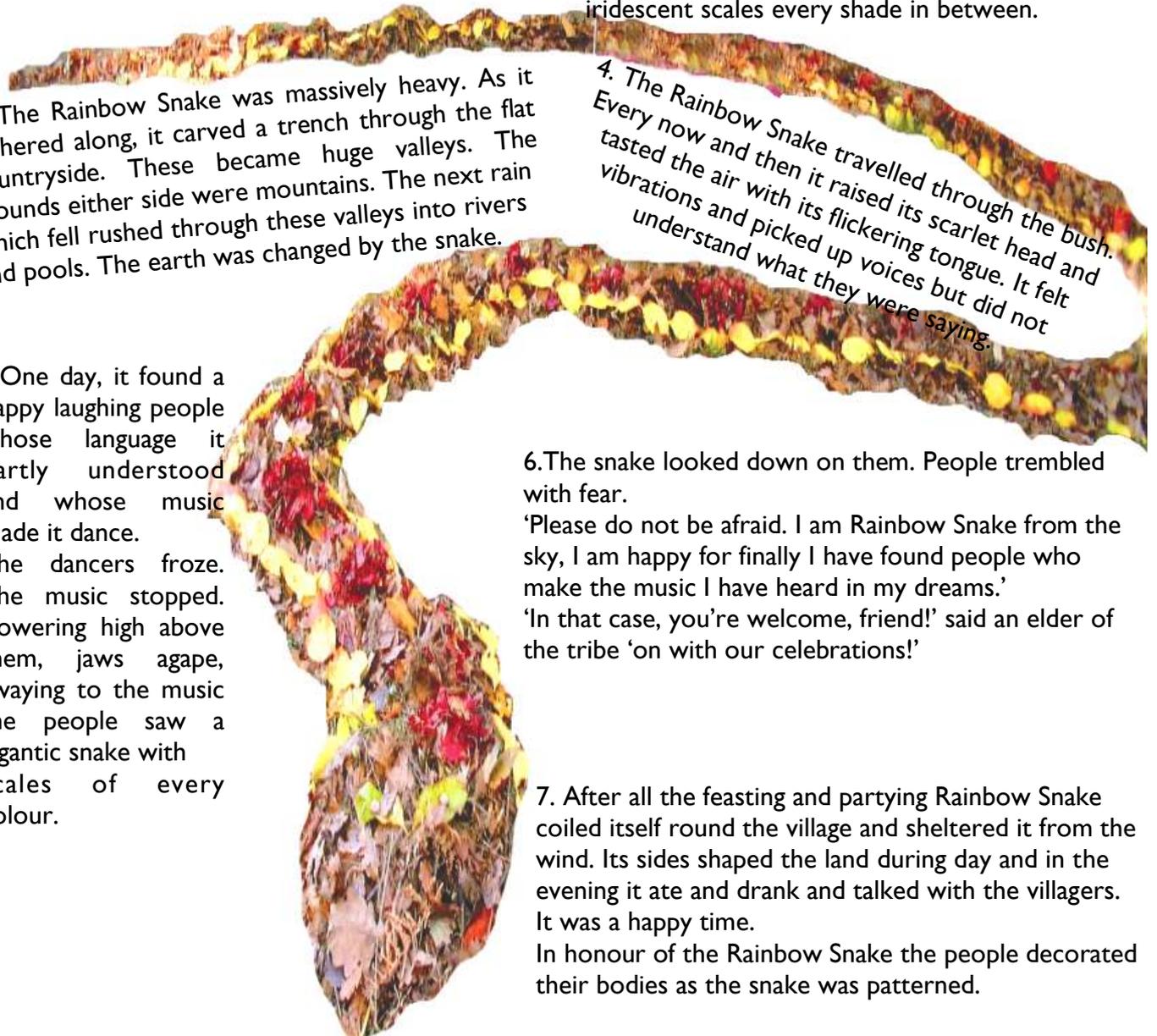
8. Then it happened. The terrible mistake.

9. Rainbow Snake fell asleep that night and, mouth wide open, dreamt it felt the pleasant tickle of rain trickling down its throat. It tasted something sweet like raindrops on its tongue and swallowed. Too late! The shapes in its mouth were solid.

Two boys had crept into the Snake's huge mouth, mistaking it for a cave. Now they were deep in its coiling stomach the Snake could not fetch them back. It had only done what was natural. But what to do now?

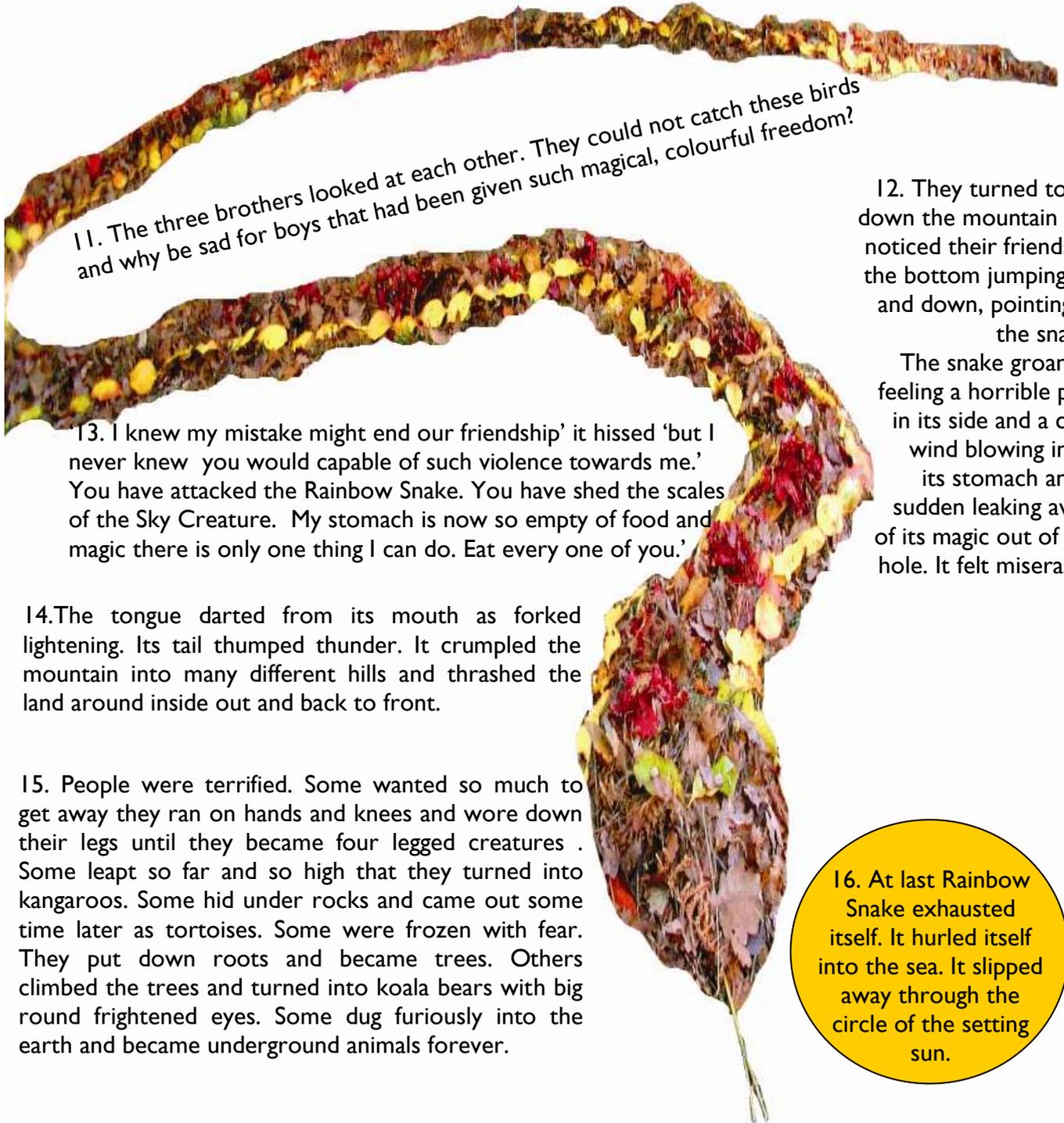
The Rainbow snake knew he could not hide what had happened for long, he would not be able to bear the sound of the weeping mothers or the shame of what he had done. Better to slip away, forget old friends, try to find new ones.

Away it slithered, carving a great valley in the wet earth as it left and wrapped itself around the mountain that it had formed at the end of the valley and slept.



10. The snake's stomach was full. Snores rolled like thunder down every side of the mountain. Boulders tumbled and rocks fell. But three brothers from the tribe clambered up, knives clenched in their teeth. Although the snake had been their friend they wanted their boys back. They slit open the side of Rainbow snake; scales fell in a rain of indigo, green and blue. They shouted inside to the boys....

But we must not forget that the snake was made of the great magic of the sky and had already part digested the children. They had become part magic too. Out of the stomach, past the rescuers fluttered not two boys but two beautiful, happy birds, their feathers shining indigo, green and blue. They soared high in the sky, circled the mountain and flew off, singing joyfully.



11. The three brothers looked at each other. They could not catch these birds and why be sad for boys that had been given such magical, colourful freedom?

'13. I knew my mistake might end our friendship' it hissed 'but I never knew you would capable of such violence towards me.' You have attacked the Rainbow Snake. You have shed the scales of the Sky Creature. My stomach is now so empty of food and magic there is only one thing I can do. Eat every one of you.'

12. They turned to go down the mountain but noticed their friends at the bottom jumping up and down, pointing at the snake.

The snake groaned, feeling a horrible pain in its side and a cold wind blowing in to its stomach and a sudden leaking away of its magic out of the hole. It felt miserable.

14. The tongue darted from its mouth as forked lightening. Its tail thumped thunder. It crumpled the mountain into many different hills and thrashed the land around inside out and back to front.

15. People were terrified. Some wanted so much to get away they ran on hands and knees and wore down their legs until they became four legged creatures . Some leapt so far and so high that they turned into kangaroos. Some hid under rocks and came out some time later as tortoises. Some were frozen with fear. They put down roots and became trees. Others climbed the trees and turned into koala bears with big round frightened eyes. Some dug furiously into the earth and became underground animals forever.

16. At last Rainbow Snake exhausted itself. It hurled itself into the sea. It slipped away through the circle of the setting sun.

17. And next morning after this huge, stormy change on earth Rainbow Snake was back in place again. A rainbow, spanning the sky like a breath of peace: a trick of the light as the sunlight catches rain. A reminder that there will be calm and beauty after stormy nights.

But looking down on Earth, the landscape it saw was transformed. No longer flat and barren, it had valleys and mountains, trees and many, many animals. The lives of the first people had been changed too. Some people were animals, some plants, and some had just had their eyes opened wider than ever before!

# Snake stories....Maud and the dragon

Herefordshire  
has its very  
own reptile  
story.

Can you guess  
where it might  
be set?

1. One day while playing in the woods a little girl called Maud found a baby dragon. It had soft green scales, small silky wings and was hardly bigger than a cucumber. When the little creature saw Maud it was so happy it skipped in circles. Maud took the baby dragon home and gave it a saucer of milk.

2. Maud's parents told her to return the creature. Maud and her strange pet walked sadly back to the woods. She took it to her secret den, a shelter of twigs, bracken and branches. There she could visit it, feed it and play with it.

3. The dragon grew bigger and bigger. Soft green scales became hard and iridescent. Silky wings grew strong and leathery. The saucers of milk that Maud fed it no longer satisfied it's ravenous hunger. It began to hunt for more food.

4. The dragon became so hungry he began to hunt farm animals. The people became angry. When the bold farmers attempted to deal with the dragon – he discovered something else he liked – humans! He roasted them first with his fiery breath.

5. Maud was upset. Her playmate had turned into a monster. How could she stop him? She alone, was safe with him. She pleaded with the dragon to stop eating the villagers. But he was only doing what came naturally to him.

6. Eventually Garston, the archer came to help. He knew the dragon liked to drink in the special spot where the rivers met. Garston hid in a cider barrel and floated down the Lugg. When he passed the dragon he shot his arrow.

7. Maud wept for her beloved dragon but understood the village and their farm animals could now live in peace.

Maybe the hills around Mordiford inspired the story...  
...the shape of the dragon's back.  
Maybe the dragon drank where the rivers Wye and the Lugg meet

Maybe Maud met the dragon in Haugh woods.

There is a Serpent Lane in Mordiford!

Children of Mordiford recreating the dragon in mud!





# Reptile rhymes...

Watch the dvd for some insssssppiration.  
Use the snake here for a base

Come up with snake words, sounds, descriptions... write these in the blank boxes.  
Cut these out.

Copy and cut out the words we have given you.  
Mix and match the words to come up with snake poems.  
Add more words if you need them.

the

sneaky

when

after

lizard

so

to

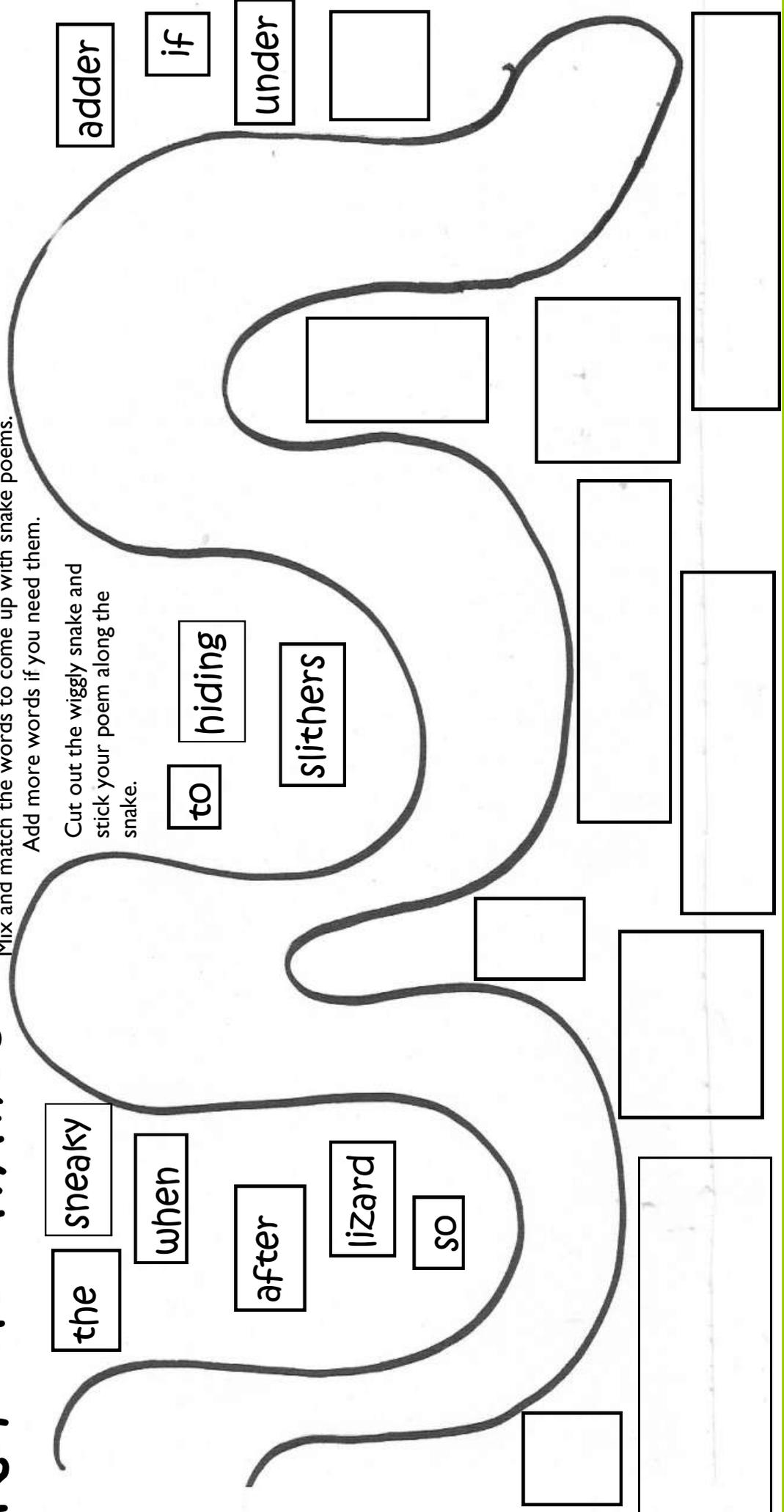
hiding

slithers

adder

if

under



adder

if

under

[Blank box]

Or how about going big with poetry? Draw a huge snake on the playground in chalk. Write the words out on A4 card or pieces of wood and places these along snake to make poetry.



These poems were sent to Herefordshire Nature Trust by someone who was inspired watching adders near where she lives. (Contact at back of pack).

Poems are a good way of getting a message or thought across. Do you feel strongly we should look after reptiles and their habitat?

### The Demise of the Adder

The demise of the adder  
is terribly sad  
The poor little creature  
so misunderstood  
Devoted or loyal  
to his partner or wife  
No male can get near  
within an inch of his life  
He'll rise up and do  
a wonderful dance  
Just like a snake  
being charmed, in a trance.

Your chance of being bitten  
is terribly slim  
When he's hungry he'll bite -  
not just on a whim.  
If you don't annoy him  
and leave him alone  
he's happy living  
alongside others  
of a similar tone.

He bites to eat food  
by poisoning his prey  
But he really isn't a killer  
with humans at bay.  
The last time someone  
died of a bite  
was in 1975  
so please don't take fright  
for our adders are growing  
extremely rare...  
...We need to treat them  
With the utmost care.

### The Adder

Silver shiny  
in the sun  
lost his skin  
three days gone-  
A time in May  
on the trail  
of pheromone  
for a female  
he has gone  
following her  
perfume  
quite love lorn  
He will be torn  
by another male  
who he'll see off  
rising up  
strutting his stuff  
in a courtship dance  
of strength  
to strength - writhing and twisting  
and at great length  
the stronger male  
after this exhibition  
forces the weaker  
into submission  
but the weaker may return  
to be seen off again  
by the first  
then the winner will surely stay  
to protect his mate  
in a devoted way.



**Your turn!**  
Do the pictures in  
this pack or on the  
DVD inspire you to  
write about a  
Herefordshire  
reptile?

...Can you describe their patterns?

...do they do funny things?

...how do they move?

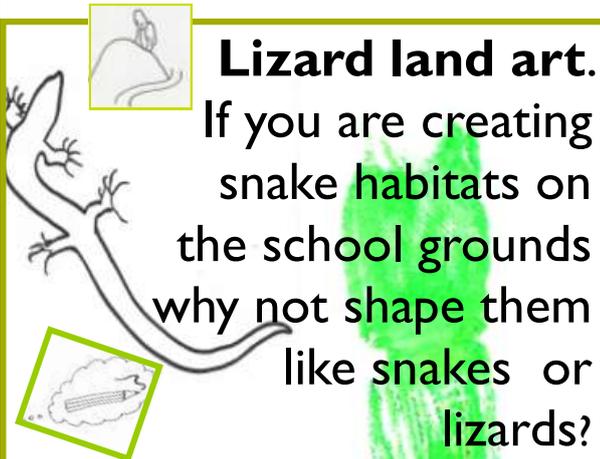
# Make that snake!



Teacher notes



Reptiles in their elements!



## Lizard land art.

If you are creating snake habitats on the school grounds why not shape them like snakes or lizards?



Find a snake like stick and paint it!

Its a bright autumn day. Go out and gather leaves to make a long snake in the grass or playground.



Leaf snake by children at Queenswood Arboretum

Make use of the delicious Hereford clay soil! Mix up a bucket full. Make clay reptiles writhing along branches of trees or the playground. Can you put markings on them to show if they are adders, slow-worms or grass snakes?



## Carnival time!

Look up pictures of chinese dragons (or any carnival structures). Make yourselves a giant carnival snake that you can all fit under and move. You can use big hoops of willow (p.37) under a sheet decorated with scales. Fold card or scrunch paper to cover with nature for a large snake head. Poke up canes under head to hold. **Dance!**



Photo: WildPlay



Or snake head dresses? Create basic crown with card. Add scraps of material, nature or even your own prints to make a long serpent snaking down the child's back.

# Make that snake!



## Plaited adder

Cut strips of about three inches wide (as long as you like) but tapered at one end. (Or use 3 legs of tights!) Place three strips together at tapered end and tie them together (the tail). It can be easier to work in two's –one holding the tail of their partner's snake whilst their partner plaits and then swap.

At the end of the plait tie two of the strips together. Wrap the end of the third piece around the knot and tuck in the edges to make a face. Use a tiny rubber band to secure the head if needed. Glue on eyes and a tongue. Look back at the fact sheet to check the right shape for adder eyes.



The zig zags are a good opportunity to look at adder's markings.

Can you find ways of printing like this? →

Using thumb prints or cut out scale shaped card. Or bubble wrap?

Look closely at images of snake skin.



Find some scale shaped nature and stick down to a snake shaped pattern. Birch leaves are perfect.

## All tied up snake!

**You need:** Old ties, wire (could be from old coat hangers) stuffing (small scraps of material or stuffing), eyes, glue.

1. Insert the hanger into the tie. You can fold down the ends of the wire with some needle nose pliers so that the edges are very smooth before the children use them.
2. Stuff the tie from each end.
3. Fix the tail end of the snake closed (glue, staples, sewing).
4. Push some stuffing up into the point of the snake's head (the wide end of the tie). Close this end up and add eyes to finish.

For display bring in some sticks and branches to the classroom and wind your snakes around them!

## Shadow puppets.

Snakes and lizards make great outlines. Cut in black card and shine torch through hung up white sheet for your very own shadow puppet play.

A great chance for children to look at shapes of lizards feet, outlines of snakes heads, tails that might fall off!



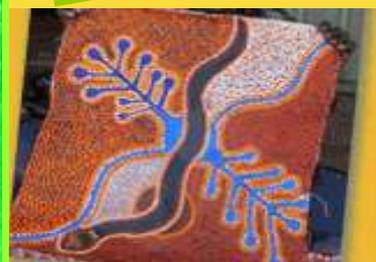
Discs of nature, card or wood drilled with little holes and then strung through. You can use this to explore movement

Snakes make wonderful puppets.

Could your snake puppets do the adder dance? (See p3 & 12).

**Aboriginal painted snakes.** Can you paint sticks you find or draw blank ones on card to colour?

Read Rainbow Snake first.



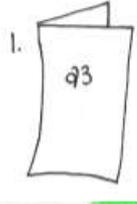
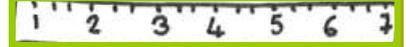
**Origami lizards.** Check out the many u-tube videos showing how to make these skittery critters.

# Make that snake!

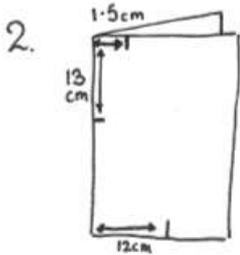
## Kites



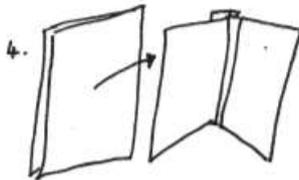
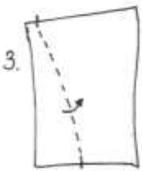
### Yikes! Snakes that fly!



1. Fold paper in half



2. Measure 1.5cm in from the top. 12cm in from the bottom. 13cm down from the top.



3. Fold along dotted line between top and bottom of paper

4. Fold out top leaf



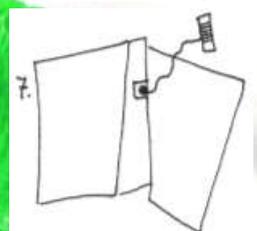
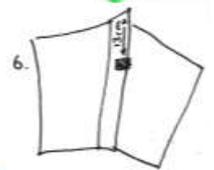
5. Put strong tape down centre.

6. Turn kite over. Pull up flap. Put piece of tape 13cm from top of flap for reinforcement (where line goes).

7. Punch through flap. Tie on line (thick cotton or very thin string)

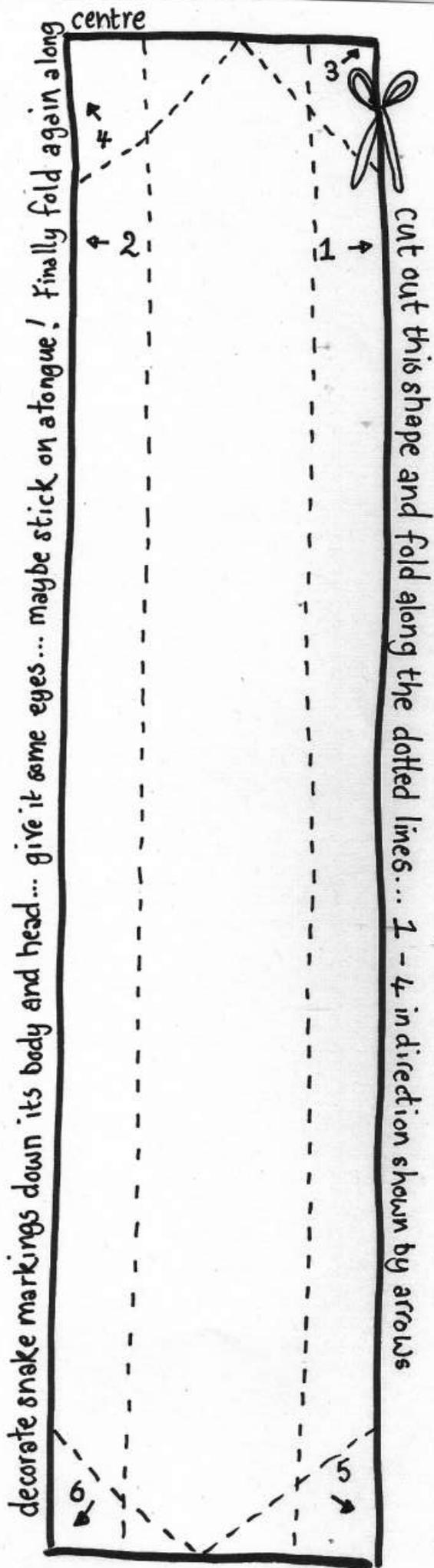
8. Tape on cross cane (thin bamboo, e.g. pieces from old blinds, or thin stick)

Add crepe or plastic bag tails in snake colours (approx 3cm x 135cm).



9. Decorate a snake's head on the paper and

**fly!**



# Make an adder!

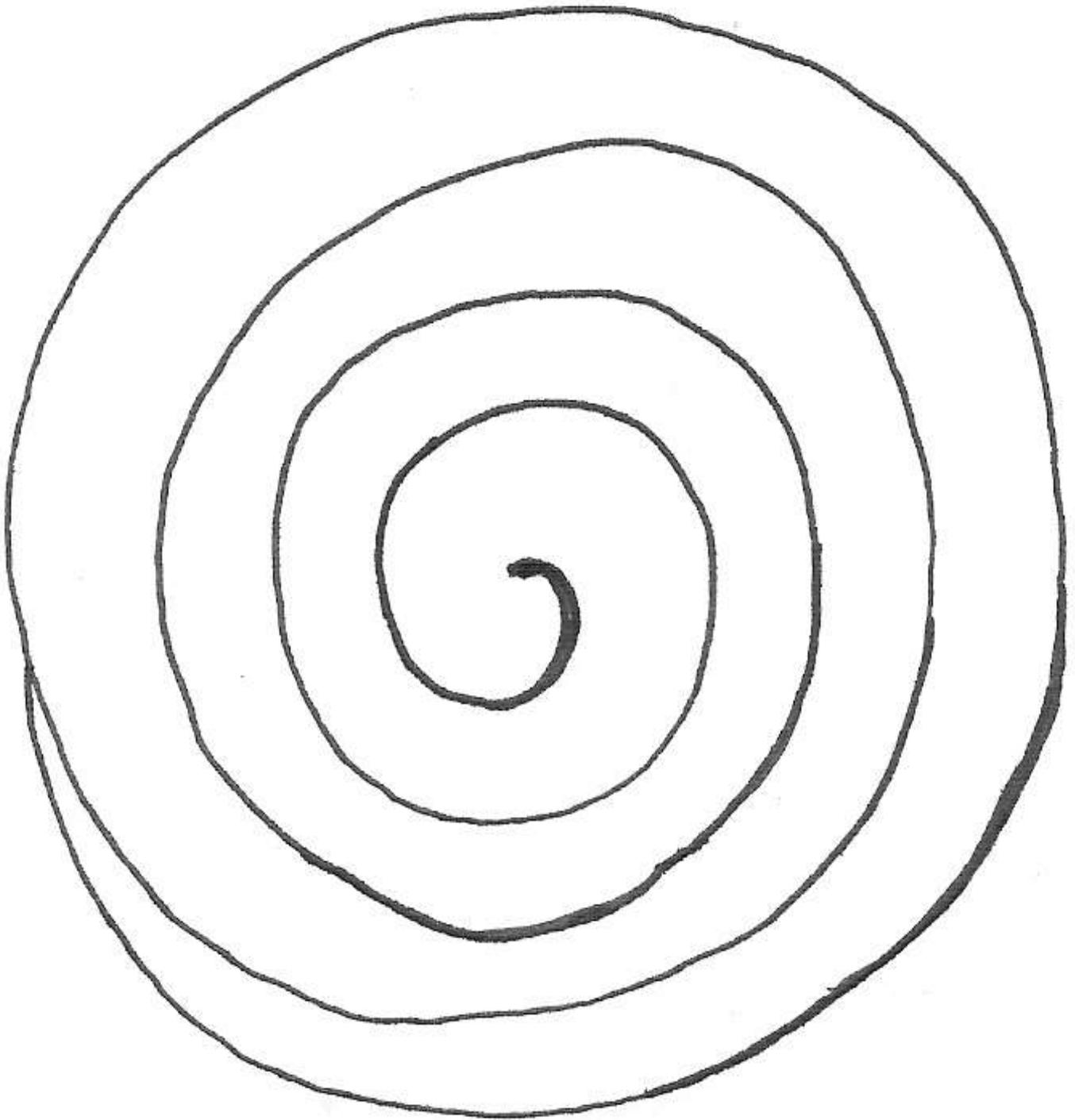


your finished snake could look like this!  
 you can make gentle folds along  
 it to make it wiggle...  
 ...or put it on two sticks...

Encourage children to look at the posters and read the factsheets on the adder before colouring in. So that this becomes an opportunity to learn the identification.



# Make that snake!



- Chose to do an **adder, grass snake, slow-worm.**
- Look at the leaflets and information and **colour in the spiral using the correct markings for your chosen one.**
- Cut out spiral
- Use a hole punch or needle and thread to hang them from the back of their heads. You can soon have a class room full of Herefordshire reptiles!

## Further information & useful websites

[www.herefordhart.org](http://www.herefordhart.org)

**Herefordshire Amphibian and Reptile Team**

*Photos, events, records, species information for Herefordshire.*

[www.herefordshirewt.org](http://www.herefordshirewt.org) Phone: 01432 356 872

**Herefordshire Nature Trust**

[www.bbc.co.uk/nature/wildfacts/animals\\_a\\_z.shtml](http://www.bbc.co.uk/nature/wildfacts/animals_a_z.shtml)

*A-Z of animal facts. Links to other science and nature info.*

[www.arc-trust.org](http://www.arc-trust.org) *Amphibian and Reptile Conservation, information, membership, resources.*

[www.arc-trust.org/dragons/](http://www.arc-trust.org/dragons/) *(encouraging reptiles and amphibians near you)*

[www.arkive.org](http://www.arkive.org) *Useful info on species + good video clips of animals in habitats*

<http://www.animalcorner.co.uk/reptiles/reptiles.html> *Range of info on British wildlife.*

[www.teachernet.gov.uk/learningoutsidetheclassroom](http://www.teachernet.gov.uk/learningoutsidetheclassroom)

*Resource to help professionals provide high-quality cross curricular outdoor experiences.*

[www.englishwillowbaskets.co.uk](http://www.englishwillowbaskets.co.uk) *Willow supplies for craft*

### **Amphibians and Reptiles of Herefordshire**

Nigel Hand, Phyl King, Will Watson

ISBN 978-0-9551880-1-5

ISBN 0-9551880-1-6

*Useful books!*

### **Britain's Reptiles and Amphibians**

A Guide to the Reptiles and Amphibians of Great Britain, Ireland & Channel Islands

Howard Inns

Wild Guides

ISBN-13:1903657253

Two **excellent books** full of activities for **introducing children to nature in creative and unusual ways!**

Talking to The Earth, Gordon MacLellan, Capall Bann Publishing (ISBN 1 898307 43 1) [www.capallbann.co.uk](http://www.capallbann.co.uk)

Sharing Nature with Children, J. Cornell, (ISBN 1883220 874) Dawn Publications [www.sharingnature.com](http://www.sharingnature.com)

**Nigel Hand.** 01531 636033 mob: 07974 121806 e: [nigel.hand@virgin.net](mailto:nigel.hand@virgin.net)

*County recorder of amphibians and reptiles. Available for advice, workshops, talks.*

**Jo Polack.** 01432 880 648 e: [jopolack@hotmail.com](mailto:jopolack@hotmail.com)

*Available for nature play, forest school sessions & environmental art projects.*



# What's That **SWAKE!**