Mae'r ddogfen hon ar gael yn y Gymraeg / This document is available in Welsh

Swift in Schools Education Pack

Ariennir gan Lywodraeth Cymru
Funded by Welsh Government

PARTNERIAETHAU NATUR LLEOL
LOCAL NATURE PARTNERSHIPS
CYMRU

Rhondda Cynon Taf
Partneriaeth Natur Lleol
Local Nature Partnership

RHONDDA CYNON TAF

Icon key

Title of new topic
Background Information
Extra information
Lesson or activity
More information

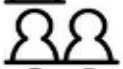
 Background information

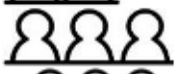
Age range

 Lesson or activity

 Game or fun

 Individual work

 Pair work

 Group work

 Whole class

 Indoor activity

 Outdoor activity

 Further information

Areas of learning and experience

 Expressive arts

 Health and well-being

 Humanities (including RE)

 Languages, literacy & communication (including Welsh)

 Mathematics and numeracy

 Science and technology

Content

ACTIVITIES

1. Introduction "Swifts in Schools"

The "Swifts in Schools" project is an exciting project in Rhondda Cynon Taf (RCT) aimed at helping swifts, small but amazing and tough little birds, which migrate huge distances to nest here in the summer.

Swifts breed from Ireland to Beijing, from the Mediterranean and the Middle East right up to the Arctic. However, even with this huge range, everywhere their numbers have drastically decreased, and they have become a threatened species, so they really need our help.

Nesting boxes & call systems

The "Swifts in Schools" project involves installing manmade nestboxes in suitable schools and using special recordings of the birds' calls to help them find the boxes. It is also aimed at raising awareness of their plight and fighting to save them in schools and the wider community.

All schools in Rhondda Cynon Taf have been checked to see if they are suitable and safe for swift next boxes, but don't worry if your school isn't quite right; other nest boxes may be used instead for similar looking birds, but which have slightly different housing needs! These include house martins and swallows, which have also decreased in number and drastically need help.

If you school has been lucky enough in getting swift, swallow or house martin boxes, this education pack will help you learn more about these amazing little birds and help their numbers recover.

You can also help them outside school with the help of friends and neighbours and it will give you great satisfaction and save a species from extinction.

Swift Conservation have an useful leaflet called "Swift boxes at your school" which is a great introduction into the general principles, but please note the specific details will vary from school to school.

See https://www.swift-conservation.org/Leaflet%2011%20-%20Swift%20Nest-boxes%20at%20Your%20School.pdf

Action for Nature

The “Swifts in Schools” project is part of a much bigger plan in Rhondda Cynon Taf called “Action for Nature”, written by a large group of people and originations who are dedicated to protecting and helping plants, animals and habitats in the area.

“Action for Nature” is about the things we can all do for wildlife in Rhondda Cynon Taf.

Further information can be found at “Action for Nature”

Schools and Action for Nature

Here are some ideas for schools from “Action for Nature”. These actions are aimed at schools, to help inspire the next generation to love and care for the natural world around them.

Manage your grassy areas for wildflowers

Join in with the #FollowtheButterfly campaign and start managing grassy spaces as wildflower meadows. Learn more from Plantlife.

Look for lichens

Did you know that lichens can tell us a lot about the air quality in our local area? This make a great subject for a science lesson and tells us more about the health of the environment in RCT. Find out more here.

Link with Outdoor Learning Wales (OLW)

OLW aims to increase the understanding, appreciation and sustainable use of natural resources. Join the Facebook group to stay up to date.

Help pupils to connect with nature

This additional educational resource (available in English and Welsh) is helpful for teachers looking to foster a connection to nature in their pupils.

See https://rctlnp.wixsite.com/rct-actionfornature/schools

How well are you connected to nature?

Natural Resources Wales (NRW) has developed a 5 step Natural Progression in order to support the growth of ethical and informed citizens, which our new Welsh curriculum seeks to develop by encouraging all of us to look after our world.

So, what are the steps.

Step 1 - being in nature
Nature needs to be experienced first-hand before a connection through enjoyment can develop!

Step 2 - connecting with nature
Once we feel comfortable having spent sufficient time outdoors, a relationship begins to form. The better this experience, the more positive the results.

Step 3 - gaining knowledge
Once we have developed a connection to the natural world, our knowledge of natural processes and systems begin to take shape.
As we gain more new knowledge and understanding we can move between steps 3 to 6 many times.

Step 4 – developing understanding
With time and experience a deeper level of understanding of ecosystems and natural resources matures, allowing us to consider how our actions have an impact on the environment.

Step 5 – taking a personal position
Now that a deep understanding of our place within the natural world has developed, we form our own local and global opinions, e.g. our personal stance on climate change or attitude to recycling.

Step 6 – influencing others
With a connection to nature in place, an understanding of the natural environment and a personal standpoint, we can influence and educate others.

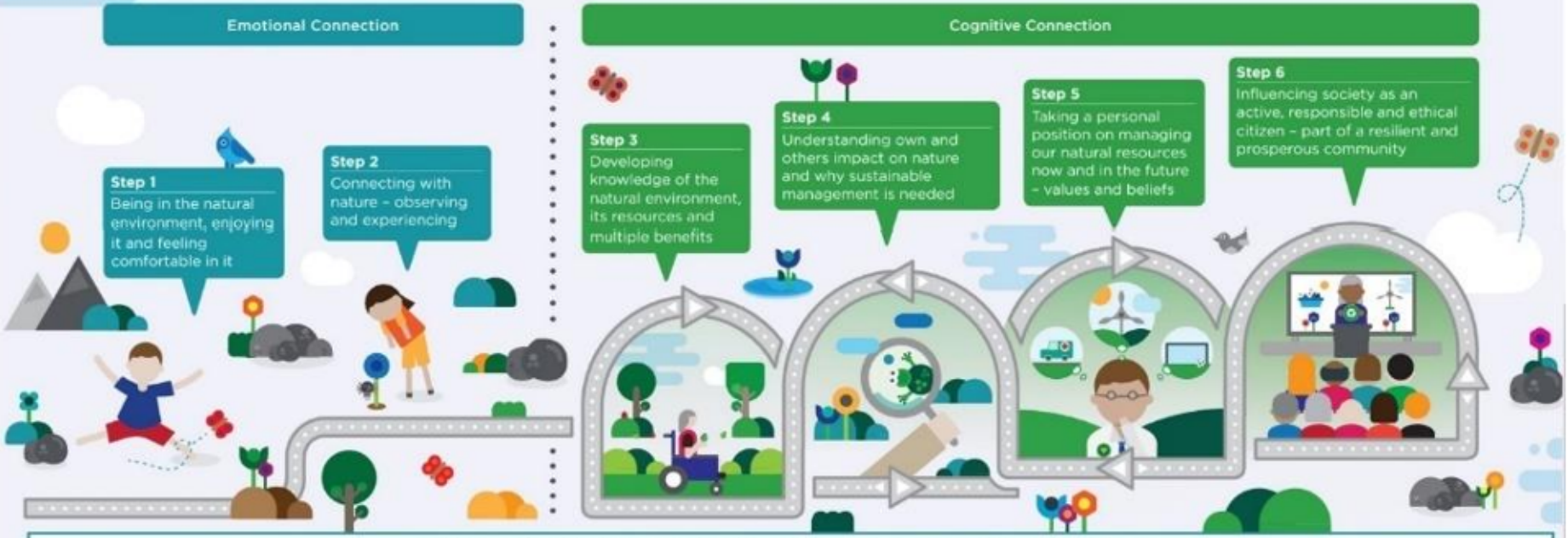
Contact education@naturalresourceswales.gov.uk or see https://naturalresources.wales/guidance-and-advice/business-sectors/education-and-skills/what-s-your-connection-with-nature-like/?lang=en

Cyfoeth Naturiol Cymru
Natural Resources Wales

A natural progression

An individual has the potential to move from being in and connecting with the natural environment to becoming an active, healthy responsible, ethical citizen able to influence others on the importance of managing our natural resources sustainably now and in the future. When deciding, which intervention should be introduced it is important to understand where an individual is along the Natural Progression.

A NATURAL PROGRESSION... DEVELOPING A SUSTAINED KNOWLEDGE, UNDERSTANDING AND INTERACTION WITH NATURE



Multiple benefits of developing a sustained knowledge, understanding and interaction with nature

Prosperous	Resilient	Healthy	More Equal	Cohesive Communities	Vibrant Culture	Globally Responsible
• Environmental employment & volunteering • Outdoor education & skills • Attracts investment • Economic resilience	• Adapting to climate change • Flood management • Improved air & water quality • Assists biodiversity	• Increased physical activity • Better mental health • Prevention of e.g. obesity, Type 2 diabetes • Community food growing	• Accessible spaces & connecting corridors • Tackles social exclusion • Deprived communities benefit most	• Involvement in design & maintenance instils local pride • Places to get to know your neighbours • Stronger community identity	• Desirable spaces with Welsh culture & identity • More visits – arts, sports, recreation • Creative, expressive, fun opportunities	• Local & national economic development • Climate change mitigation • Meets national & international policies

Download the natural progression poster

2. Swifts, swallows and house martins

Along with swifts, house martins, swallows and sand martins are summer visitors to Rhondda Cynon Taf.

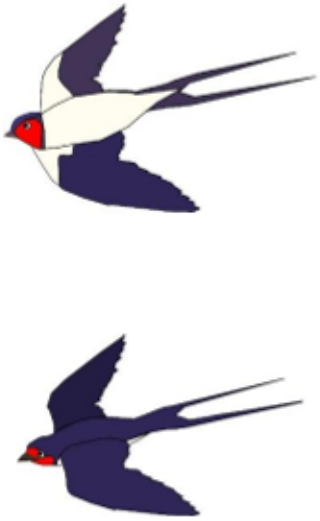
At first glance, swifts, swallows and house martins appear to be the same and they all spend the winter in tropical Africa, travelling thousands of miles back home to the Valleys to nest each year.

However, swallows and house martins belong to the same bird family called "hirundinidae" whereas swifts are from the family "apodidae". This makes swifts more closely related to hummingbirds than to swallows!

Across Britain, all of these birds are in decline, with swifts and house martins on the UK Red List. This means that their numbers have dropped so quickly that conservationists are worried for their survival, so the swifts we see in Rhondda Cynon Taf really need our help.

Swift

Swallow



House martin

Welsh names for Swifts, swallows and house martins

Swallow in Welsh is **"gwennol"** and means **"shuttle".**
Swift in Welsh is **"gwennol ddu"** meaning "**black shuttle".**
House martin in Welsh is **"gwennol y bondo**" meaning **"shuttle of the eaves"** or **"gwennol y bargoed**" meaning **"shuttle of the overhang"**

Swallow in Cornish is very similar, as **"gwennel"** or **"gwednel",** also meaning **"shuttle".**
Swift is **"gwennel dhu"** or "**gwednel dhu**" or "**black shuttle**" and is still used today.

The **"shuttle"** in both Welsh and Cornish may refer to a piece of equipment called a flying shuttle, which is used in weaving on a loom, as the bird and weaving shuttle "fly" really quickly back and forth.

If there is a connection between the names, do you think the name for the bird became before the loom?

The shuttle is circled in yellow (left) & passes back and forth along the loom (right) with thread, weaving cloth. Thanks to Trefriw Woollen Mills for the use of the images

Table showing difference between swifts, swallows and house martins

	Swift	Swallow	House martin
Underside			
Topside			
Shape	Long, narrow body. Curved or boomerang shaped wings	Long, narrow body. 2 long, forked tails called "streamers"	Shorter, stubbier body with shorter, divided tail
Colour	Very dark grey or sooty brown with paler throat; can appear black in the sky.	Glossy blue-back wing and tail White / buff belly Red throat	Blue-black upper Brown-black wings White belly and rump
Body size	16 - 17cm	15 – 20cm	12-13cm
Weight	35 - 40gm Cadbury's Crème Egg	17 – 20gm	15 - 23gm
Arrives in UK	Arrives late April / early May	Arrives from late March / early April	Arrives from late April
Sound/ call	Screams and screaming parties	Mix of trills and twitters	High pitched and trilling call
Nests	Cavity-nester high in eaves of buildings.	Bowl-shaped nests made out of mud, built in sheltered corners in the rafters of barns	Builds a dome-shaped nest out of mud, usually under the eaves of houses
Average lifespan	6 years, but recorded up to 21 years	3 years, but recorded up to 15 years	2 years, but recorded up to 14 years
UK conservation status	Red	Green	Red

Classification or scientific keys

To help identify similar looking animals, including birds such as swifts, swallows and house martins, we can use a classification or scientific key.

One type of key is when questions are asked that can be answered with a simple “yes” or “no”. This kind of key is called a dichotomous classification key. Dichotomous means divided into two parts (e.g. yes or no).

The keys can be shown in a table form or with boxes and arrows.

To use the keys on the next pages, chose one of the 3 birds, swift, swallow or house martin, and use the questions in the key to find out which bird you have chosen.

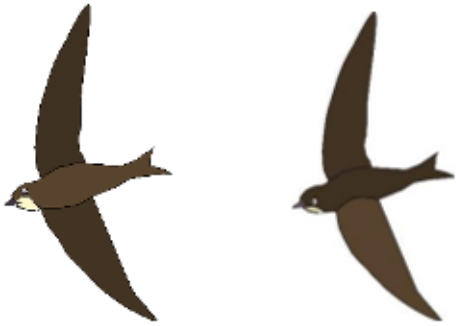
Start with Question 1 at the top then work your way down until you have found the correct one.

Question 1. Does it have two long thin tails?
Question 2. Does it have white on its body?
Question 3. Has it got a white stripe on its back?

A classification or scientific key can look different but is used in the same way. The first example is:

- A classification or scientific key in a table, with or without images
- A classification or scientific key using boxes and arrows without images

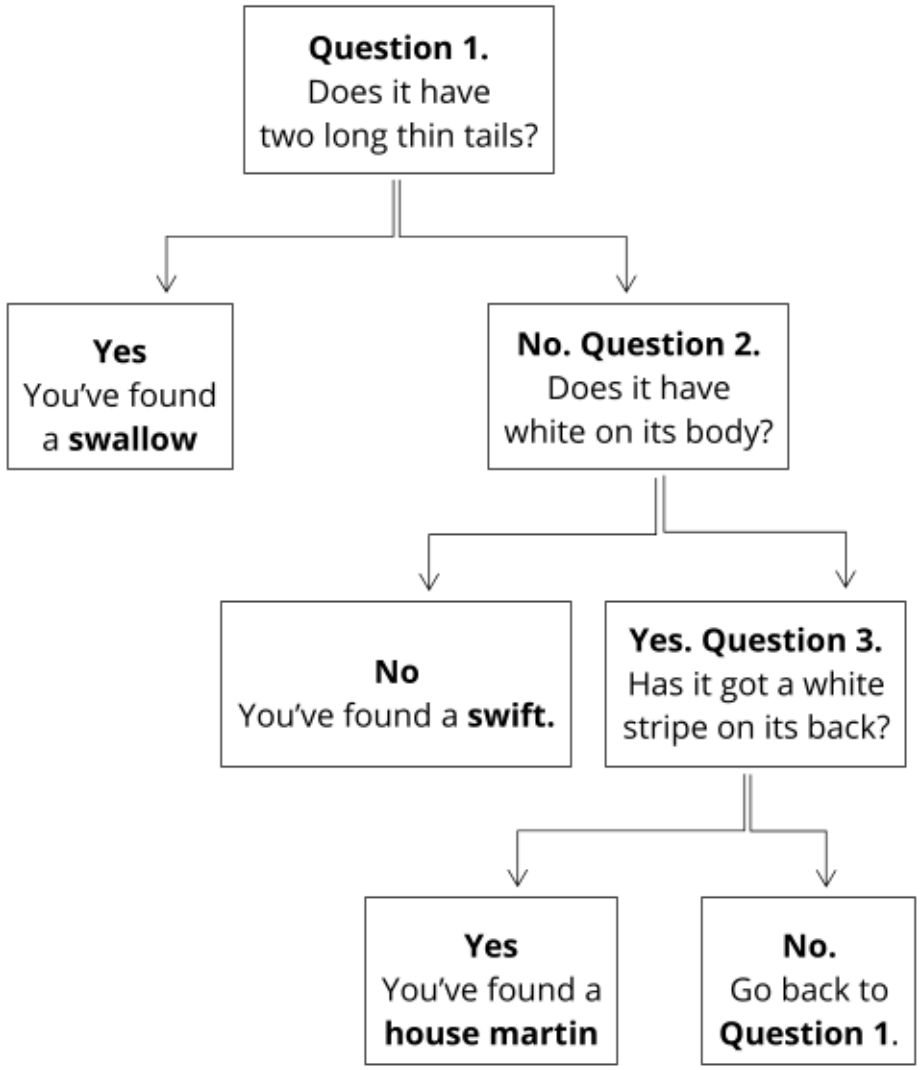
A classification or scientific key in a table format with diagrams

<table>
<tr><td rowspan="2">1. Does it have two long thin tails?</td><td>Yes</td><td>You've found a swallow.
 
Front view Back view</td></tr>
<tr><td>No</td><td>Go to question 2.</td></tr>
<tr><td rowspan="2">2. Does it have white on its body?</td><td>Yes</td><td>Go to question 3.</td></tr>
<tr><td>No</td><td>You've found a swift.
 
Front view Back view</td></tr>
<tr><td rowspan="2">3. Has it got a white stripe on its back?</td><td>Yes</td><td>You've found a house martin.
 
Front view Back view</td></tr>
<tr><td>No</td><td>Go back to question 1.</td></tr>
</table>

A classification or scientific key in a simple table format

1. Does it have two long thin tails?	Yes	You've found a **swallow.**
	No	Go to question 2.
2. Does it have white on its body?	Yes	Go to question 3.
	No	You've found a **swift.**
3. Has it got a white stripe on its back?	Yes	You've found a **house martin.**
	No	Go back to question 1.

A classification or scientific key using boxes and arrows



ACTIVITY 1: Making a classification or scientific key

1. As a whole class, get the children familiar with the type of question needed for this type of key by playing the "20 questions" speaking parlour game. One child thinks of an animal and the other children have to ask questions in turn, which can only be answered with a "**yes**" or "**no**". 20 questions are allowed in order to guess the animal.

2. In small groups, ask the children to look at each of the animals for a characteristic that is unique to 3 very different animals. If they draw the animal first it will help.

   For example; **Whale, human, butterfly**

3. Ask them to create questions around these unique characteristics that can only be answered with a "**yes**" or "**no**"

   For example, "does it live in the sea?", "does it walk on 2 legs?", "does it have wings?

4. Ask the children to put the questions into a key with the table and boxes/ arrows. As a whole class look at all the different questions they came up with. If they aren't quite right, now is the time to correct them.

5. Ask the children to create questions and a key with the table and boxes/ arrows to tell the difference between each of the children in their small groups and make sure they test them (draft table and boxes/ arrows are on the next few pages).

   For example, "are they wearing their hair up?", "do they wear a red jumper?", "do they wear glasses?"

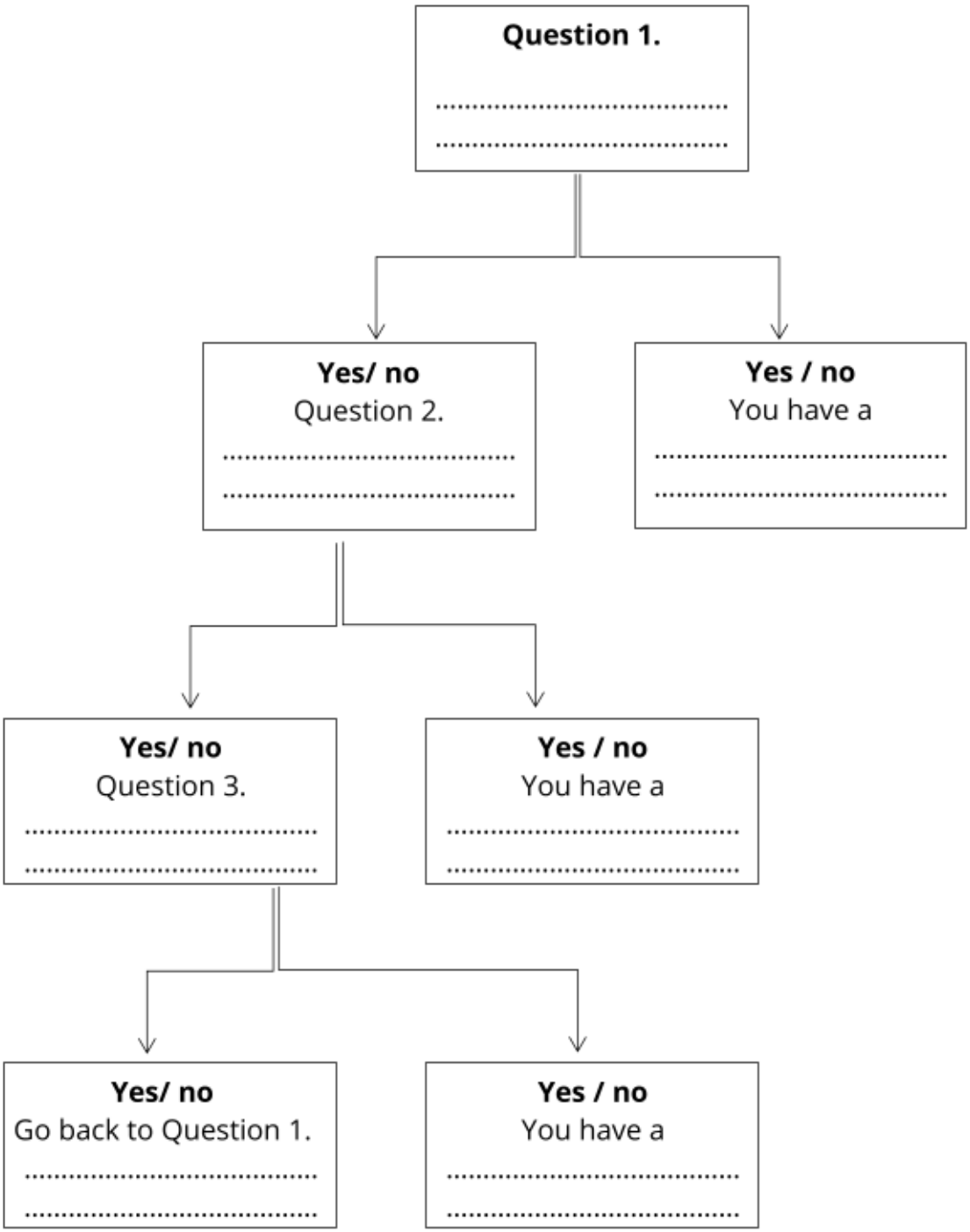
6. Use the keys the groups created as a whole class to see if their keys work! If not ask why not and get them to correct them.

7. Discuss if these keys always work e.g. will the children's appearance change every day? Discuss the key to distinguish between swifts, swallows and house martins. Revisit the key to show how well it works.

Classification or scientific key in a table template

Question 1.	Yes	....
	No	....
Question 2.	Yes	....
	No	....
Question 3.	Yes	....
	No	....

Classification or scientific key with boxes and arrows template



Further help: Identification

i spot www.ispot.org.uk/ - an identification forum where amateur naturalists and experts can ask questions about all aspects of UK biodiversity.

RSPB www.rspb.org.uk/discoverandenjoynature/discoverandlearn/birdidentifier/ - an easy online key to identify unknown British birds.

Woodland Trust Swifts, Swallows And Martins: Easy Id Guide

3. Swifts

What they look like

Swifts are medium-sized, sooty brown birds with a creamy white throat, but they look black in flight against the bright sky.

Their distinctive silhouette shows their long slim bodies, wide curved or boomerang shaped wings and forked tails. Their wings are about 42cm wide when open, they weigh about the same as a Cadbury's Crème Egg and can live up to 21 years!

Amazing flyers

They are truly amazing flyers, spending most of their lives in south of Africa, eating, drinking, sleeping, cleaning and mating all on the wing! They can cover up to a million kilometres in their lifetime, only landing to lay their eggs and rear their young.

Swifts are summer visitors to the UK, breeding here in Rhondda Cynon Taf but migrating huge distances, 3,400 miles twice a year between here and Africa to avoid the cold winter. They can reach heights of up to 5,700 metres.

They are the fastest birds in level flight, with an impressive top speed of 69mph with up to 8 wing beats per second!

Their short take-off, high speed turns and extreme agility have been studied by aerodynamic engineers to inform developments in aeroplane technology.

Look no feet!

Their scientific name is Apus apus, from the Greek word for "without feet". This is because they fly for most of the time with their legs tucked in and so you rarely see their feet! In ancient times it was thought that they had no feet at all!

As their feet are further back on their bodies than most birds they cannot walk easily, and all four of their toes point forward with sharp claws so that they can cling to a wall, rock face or a tree trunk to nest.

All on the wing!

Although more research into sleeping swifts is needed, scientists think that swifts can shut off half of their brain so that they can fly and sleep at the same time.

Swifts sometimes fly through the rain to have a wash!

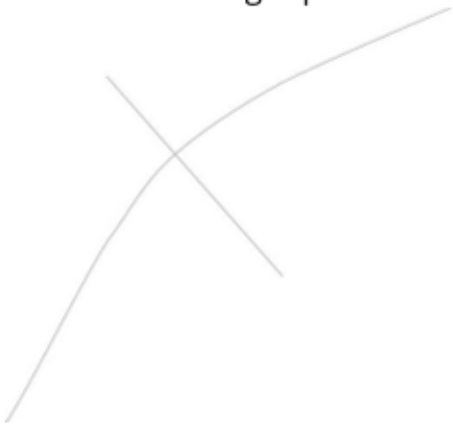
They drink by skimming low over the surface of water to gather a few drops to drink. This is very dangerous as if they get it wrong, they can go under the water and be caught by a fish.

Further information about swifts

www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/swift/
www.bto.org/understanding-birds/birdfacts/swift
www.swift-conservation.org/
www.woodlandtrust.org.uk/trees-woods-and-wildlife/animals/birds/swift/

ACTIVITY 2: How to draw a Swift in flight

1. Draw a straight line and then a curved line at 90^0 with a light pencil mark



2. Again, with light pencil marks, draw the swift's body. It looks a bit like a fish!

3. The wings are wide and swept back

4. Add the wavey edge to the bottom of the wings.

5. Make the bits you want to keep **bolder,** that means with harder pencil marks

6. Add a beak, a bit of the head, an eye, as well as belly, wing and tail details. Colour in your drawing

Food on the wing

Swifts eat huge numbers of flying insects, catching up to 20,000 insects every day!!

The adults catch the insects in flight and make it into a ball called “bolus”, then carry it back to the nest for their chicks or “swiftlets” to eat.

There can be up to 1,000 insects in each bolus, made up of insects such as flying ants, aphids, mosquitoes, spiderlings, small beetles and bees, but their favourite prey is a hoverfly.

If the weather becomes too bad for parents to collect flying insects, perhaps too wet or dry or hot or cold, young swifts in the nest can drop their body temperature and become “torpid” or a sleep like state to conserve energy, but they can only do this for short periods.


Beetle


Spider


Ladybird


Bug


Mosquito

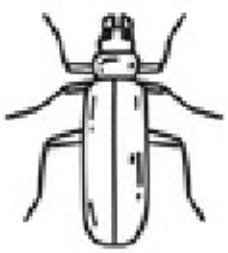

Moth


Damselfly


Bug

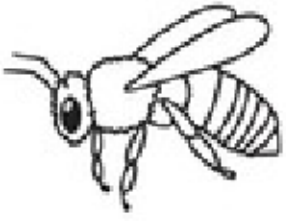

Butterfly


Fly


Beetle


Dragonfly


Wasp


Bee

ACTIVITY 3: Predator prey / swift moth game

This is a twist on a game called “bat, moth”. Swifts have excellent sight and hearing but use this game to demonstrate how they can use just their hearing to catch their prey.

1. You will need blindfolds and something that can make a noise such as a bell.
2. Use a large space, preferably outside, in natural, open space to form a circle about 4m across, facing inwards.
3. Ask the children if they can remember what swifts eat.
4. Can the children imagine what the “prey” sounds like?
5. Blindfold 2 of the children and get them to stand within the circle.
6. One of them will be the swift or “predator” and the other will be one of the “prey” or animals that the swift eats.
7. The swift or predator is then carefully blindfolded and has to try to catch the “prey” by listening carefully and following the noises or movements the prey makes.
8. If the swift can’t catch the prey, ask the prey to make the noise that they imagine it would sound like.
9. If either the swift or prey goes too close to the edge of the circle, those children forming the circle tap them on the shoulder.
10. Stress the need for everyone else to be silent.
11. Other versions of this game could include a different number of prey or predators, asking the prey to use their strategy of hunting or of avoiding capture.
12. If the predator is not very adventurous, close up the circle to bring their prey closer.

4. Nests, nest boxes and nest bricks

Nests

Birds lay their eggs in nests to protect them and their young from the weather and predators.

Swifts make their nests in cavities or spaces from fine stalks, spider webs, petals, paper and feathers they find in the air when they are flying. They pile all the material up and glue it together with a fast-hardening saliva.

Old and existing nesting sites

Swifts return to the same site each year, tidy up their old nests before laying and incubating their eggs. Some sites where swifts have nested are thought to be hundreds of years old.

A long time ago, swifts used to make nests in holes in large trees and on high cliffs, and still do in some parts of the world such as Scotland, Poland and Sweden.

However, too many trees have been cut down and cliffs have become too busy, so swifts have learnt to make their nests in small holes in the tops of houses, churches and other buildings.

Unfortunately, even these spaces are now being lost as so many people are making changes to their houses; repairing damage and filling in spaces on old buildings traditionally used by swifts.

New nest boxes and bricks

Young birds or “juveniles” are believed to follow the adult birds back to where they fledged, finding their own site for nesting. New colonies can be established by installing nest boxes and specially designed ‘swift boxes or bricks’ and playing calls to attract their interest.

The birds are curious and will investigate possible new sites, whilst screaming around in tight flocks at low level. They are very social birds and nest in groups or “colonies”. Nesting together means they are safer as there are lots of eyes looking out for danger.

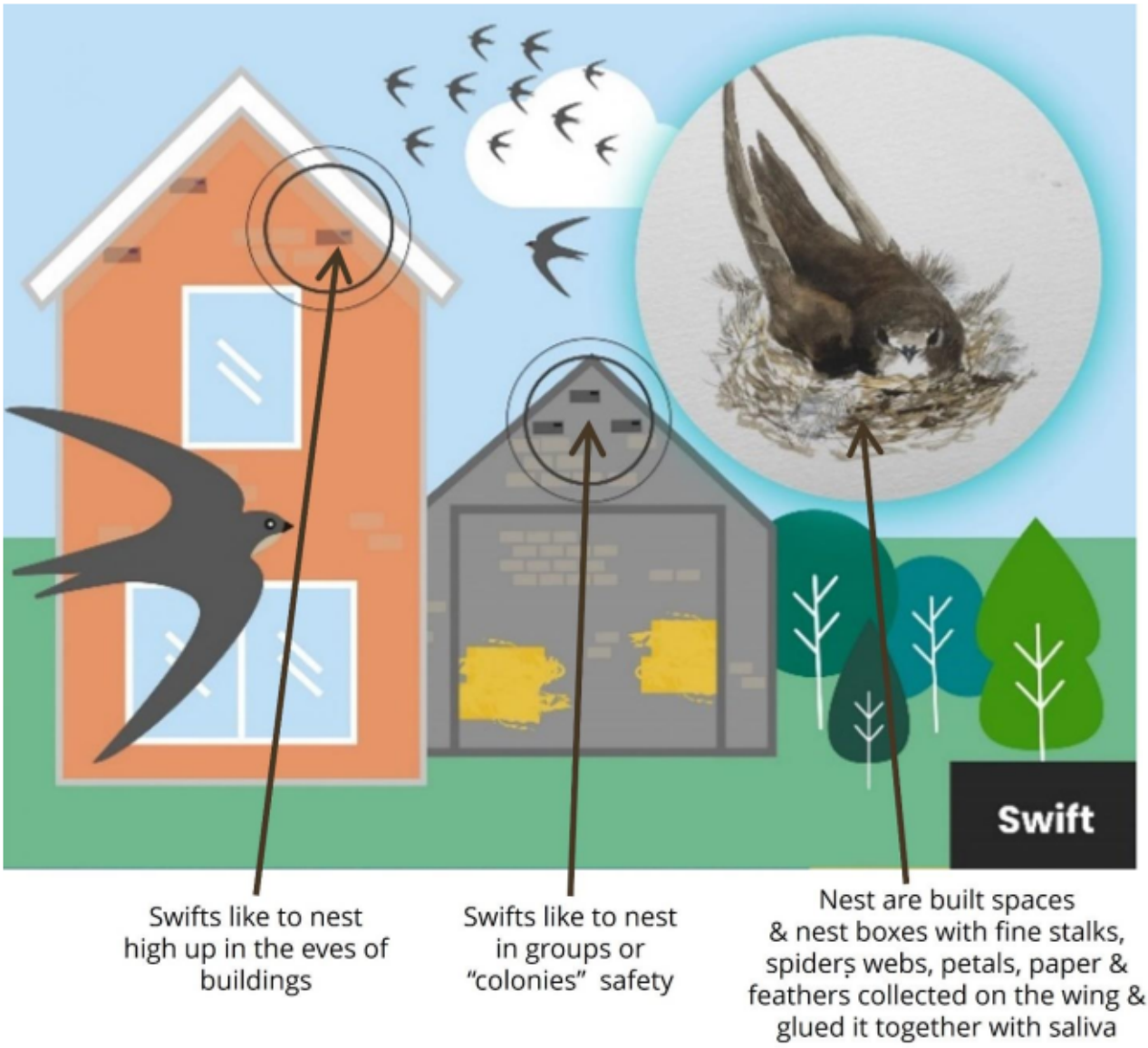
Swift nests should never be removed, and nesting birds are protected by the law! Swifts like to leave their nests by dropping into the air from the entrance.

Swifts are easy to see screaming around on a hot Summer's evening, they are secretive about where they nest, visiting at speed, so fast they can easily be missed.

The best place for swift nest boxes or bricks

Swift nest boxes and bricks need to be:

- at least 4.5m above ground level or as high as possible
- north to north-east facing walls
- sheltered in the apex or under the eaves
- with a clear area so birds can easily fly in and out without trees and wires
- not disturbed, so away from windows, doors or areas used a lot



Thank you to House Martin Conservation UK & Ireland for the use of this image.

Eggs and chicks or “swiftlets”

The only time swifts land is to lay their eggs and raise their young which are called **“**swiftlets”.

Swifts pair for life and the female lays a “brood” of 2 or 3 matte (not shiny) white eggs in a season. They are slightly more elongated that many eggs. Both parents equally share responsibility for incubating or sitting on the eggs, feeding and cleaning the swiftlets.

They take about 18 days to hatch and they are blind with no feathers when they are born and totally rely on their parents. The chicks open their eyes after about 6 days.

The adults catch the insects in flight and make it into a ball of 300 -500 insects called “bolus” and carry it in a pouch back to the nest for their swiftlets to eat.

Swift nest boxes

The new swift nest boxes in your school could be one of the following but it depends on many factors.

Thank you to Impeckable for use of the photographs of their nest boxes below

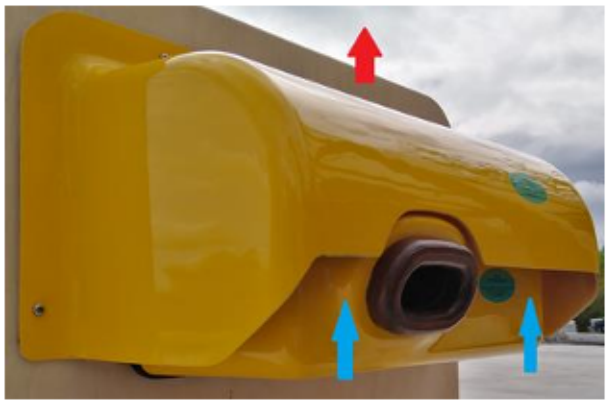
Off white single swift nest box

Red single swift nest box

Red double swift nest box

Inside a red double swift nest box

Swift nest box, with protective canopy for use in hot climates and locations.



Cool air is drawn into the next box as any hot air rises and the box is insulated

Red 4 nest swift box

Off-white 4 nest swift box with birds

White 4 nest swift box in the apex of a house

Blue 8 nest swift box under the eaves of a house

Gable end 6 nest swift box

Inside a gable end 6 nest box

Lots of white swift nest boxes on the Venue Cymru building in north Wales

Wooden nesting boxes

Swift and bird boxes can also be made from wood, which is a more common material and cheaper, but won't last as long

Thanks to Peak Boxes for use of the photographs of their nest boxes below

Wooden, single front opening, terraced and apex multi swift boxes

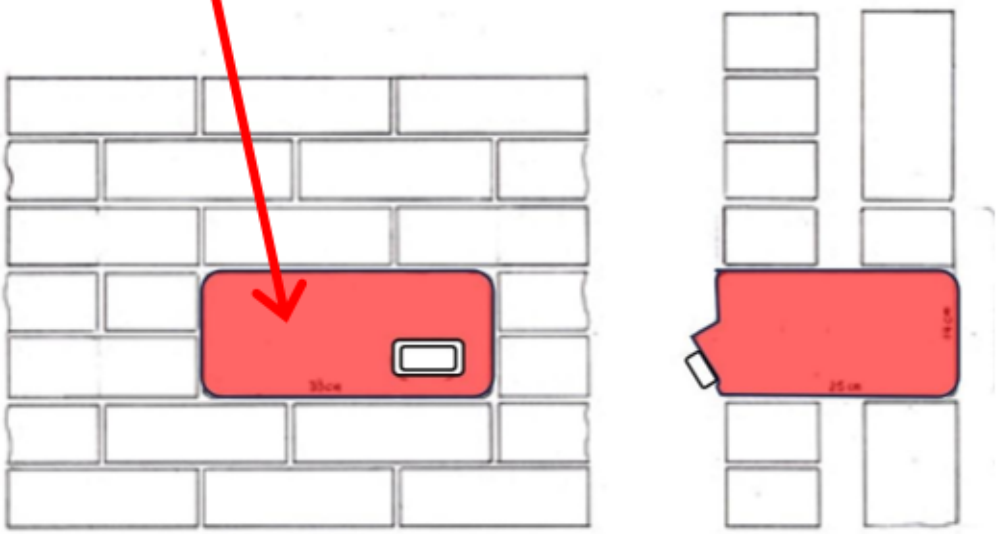
Wooden double front opening swift box installed on a building

Swift nest bricks

Thank you to Impeckable for use of the photographs of their nest bricks below

Red nest brick

A red nest brick with a nest cup



How a nest brick is used in a wall of a building

Swift bricks

Swift bricks can also be used and are best used when the house or wall is being built as it can be a bit tricky to fit once a wall is finished.

Thank you to Swift Conservation for the use of the photographs of "S-Brick" made by Action for Swifts (Dick Newell).

"S-Brick" made by Action for Swifts (Dick Newell).

"S-Brick" in wall of a house made by Action for Swifts (Dick Newell).

Swift brick

Swift bricks in wall of a house being built

House martin and swallow nest cups

If your school has been found not to be suitable for swifts then you may have been offered house martin or swallow nesting cups instead.

Thank you to Impeckable for use of the photographs of the following 4 photos

House martin nest cup: white and red

Swallow nest cup: white and yellow

Many thanks to the RSPB for the use of the following 2 image

More traditional wooden and concrete house martin nest cup

More traditional wooden and concrete swallow nest cup

ACTIVITY 4: Swift monitoring diary

1. From May until the end of term, in groups of 6 or less, observe and record any activity in or near the nesting box(es) at least once a week in the afternoon for at least 10 minutes.

2. Agree a place you can watch the nest boxes where:
   - It is safe and comfortable
   - You won't disturb the birds or others in school, and
   - there is shelter from the rain and the sun.

3. You will need to be quiet and keep still, with your eyes and ears alert to see and hear any birds and other animals. Use binoculars if you have them.

4. Record as much information as you can about each nest box as well as any other things you many see from nature and even record if nothing happens.

An example of a monthly recording form

Month .....June..... **Year** .....2024.....

Week 1

Recorders names	Day, Date, Time		Weather	Nest box number				Other sightings
				1.	2.	3.	4.	
1.	**Day**	Mon	Sunny Cold	/	1 swift flew in with feather	/	/	Bees buzzing
2.								
3.	**Date**	1.06.24						
4.								
5.	**Start**	1.03pm						
6.	**Finish**	1.15pm						

Week 2

Recorders names	Day, Date, Time		Weather	Nest box number				Other sightings
				1.	2.	3.	4.	
1.	**Day**	Thurs	Sunny Warm	/	1 swift flew out	1 swift flew in and out with food again	1 swift flew into box	Butterfly near entrance
2.								
3.	**Date**	8.06.24						
4.								
5.	**Start**	2.13pm						
6.	**Finish**	2.28pm						

Week 3

Recorders names	Day, Date, Time		Weather	Nest box number				Other sightings
				1.	2.	3.	4.	
1.	**Day**	Fri	Cloudy Cold	/	/	Sparrows inside nest box	/	Swifts flying high in sky Wasps interested in the boxes
2.								
3.	**Date**	15.05.24						
4.								
5.	**Start**	12.50pm						
6.	**Finish**	1.00pm						

Week 4

Recorders names	Day, Date, Time		Weather	Nest box number				Other sightings
				1.	2.	3.	4.	
1.	**Day**	Fri	Rain Cold	/	/	/	/	/
2.								
3.	**Date**	29.06.24						
4.								
5.	**Start**	1.45pm						
6.	**Finish**	1.55pm						

Month ..... Year .....

Week 1

Recorders names	Day, Date, Time		Weather	Nest box number				Other sightings
				1.	2.	3.	4.	
1.	Day							
2.								
3.	Date							
4.								
5.	Start							
6.	Finish							

Week 2

Recorders names	Day, Date, Time		Weather	Nest box number				Other sightings
				1.	2.	3.	4.	
1.	Day							
2.								
3.	Date							
4.								
5.	Start							
6.	Finish							

Week 3

Recorders names	Day, Date, Time		Weather	Nest box number				Other sightings
				1.	2.	3.	4.	
1.	Day							
2.								
3.	Date							
4.								
5.	Start							
6.	Finish							

Week 4

Recorders names	Day, Date, Time		Weather	Nest box number				Other sightings
				1.	2.	3.	4.	
1.	Day							
2.								
3.	Date							
4.								
5.	Start							
6.	Finish							

Further information

Be patient. It may take some time for the swift to find the new nest boxes and they may not even use them this year at all.

Also, other birds or animals such as bees or wasps may use the boxes! They shouldn't be a problem as the boxes are very high and won't bother anyone so observe and enjoy them!

If the swifts are happy and not disturbed, they will hang around for a few days then the female will lay 2 - 4 eggs.

Both parents will incubate the eggs, then change every hour or so and feed themselves in-between. Eggs hatch in 18 days and the chicks or swiftlets are naked at first but have full feathers in a month's time.

They will need to be fed every 45 to 60 minutes, from dawn to dusk, for 12 hours a day, so the parents work very hard.

You may see the parents flying in with swollen throats full on insects for the swiftlets. But be sharp, they are quick!

Only when there is enough food, and the weather is good, will the swiftlets be ready to leave the nest or "fledge". This is between 37 and 56 days after hatching.

ACTIVITY 5: Build a nest

You will need: tweezers or scissors, plenty of twigs, moss and other natural material in perhaps a woodland area.

1. Discuss why birds build nests during the spring.

2. Where do they usually locate their nests? E.g. trees

3. Where do swifts make their nests and why?

4. Explain that swifts use feathers to line the nest to protect the eggs and keep them warm, whilst other birds may also use other materials, such as moss or fur.

5. Explain that the children are going to work in pairs to build a nest but, to make this task more difficult, they have the choice of either building their nest in a tree or using just tweezers (like a beak) to find and position materials.

6. On regrouping, take a tour of the nests to decide which is most habitable and discuss the design, whether it was easy to make, and the success of holding an "egg" – perhaps try with some chocolate eggs and offer this as a prize for the best!

7. Extension activity – what is the best material for building a nest box?

    - Paper, wood, brick, plastic?
    - What factors need to be taken into consideration e.g. waterproof, insulation, longevity, cost, availability, how to fix to the wall, etc.

5. Call systems

Swifts are very loyal to nesting sites, using them for many years. To help them find new boxes or bricks, we help them using a “call system”. By playing their calls in the morning and evening near the new boxes or bricks you can attract passing birds.

The calls make them feel safe as they think other swifts are already using the new boxes or bricks. Swifts can take several years to establish new colonies so be patient and don’t worry if they take a while to use the new accommodation.

When do swifts arrive in Rhondda Cynon Taf

There are three different age groups of swifts that arrive at different times or “waves”.

The first wave

Older, experienced birds are the first to arrive at the end of April or early May. They have bred before and return to their traditional nest sites, so it’s unlikely they will use new sites unless their old site has been blocked or removed.

The second wave

Younger / newly mature swifts (usually 3 to 4 years old) arrive from mid-May to early June and look for their first mate and suitable nest site. This is the best time for playing your calls as they will investigate where the sound is coming from. If you are lucky enough to attract a pair, they may build a nest this year; if not, there is a good chance that they will return the following year to build their first nest.

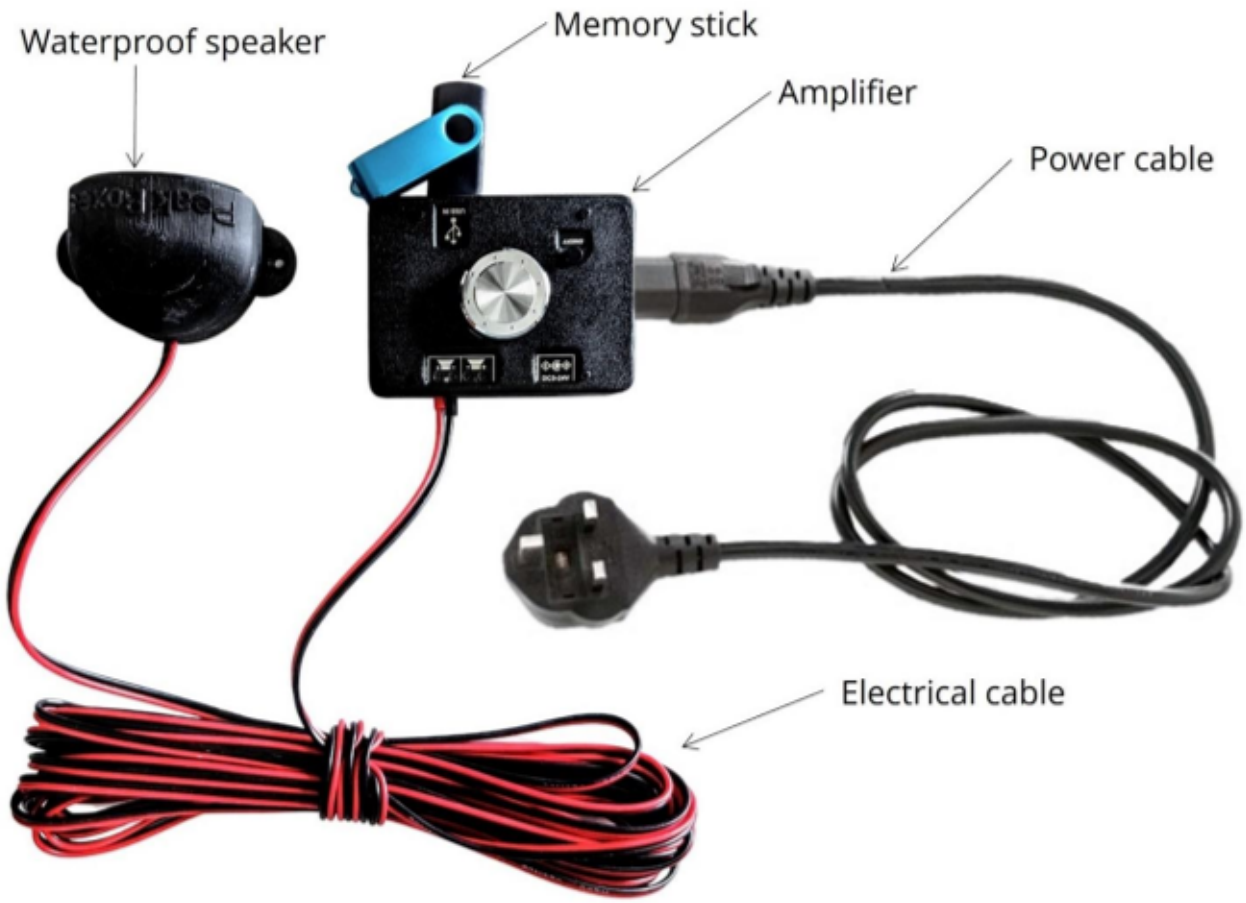
The third wave

Immature / non-breeding birds (1 to 2 years old) arrive from early to mid-June. These swifts are interested in joining a colony and will explore several in the local area to investigate the best ones. They might even enter one of your boxes or bricks, sleeping or “roosting” in it briefly, before they leave a couple of weeks later with other non-breeding birds. They will not start building a nest until at least the following year, when they return as ‘newly mature’ birds (second wave).

When the calls are played

The calls will be set up with a timer and the best time is as they arrive in May until July, on dry days from at least 1 hour after dawn and 1 hour before dusk on calm, dry days. This is when the swifts will be socialising and listening out for other swifts calling. It can also be worth playing the caller on warm, sunny days when you hear and see swifts overhead.

Parts of the call system

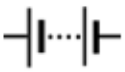


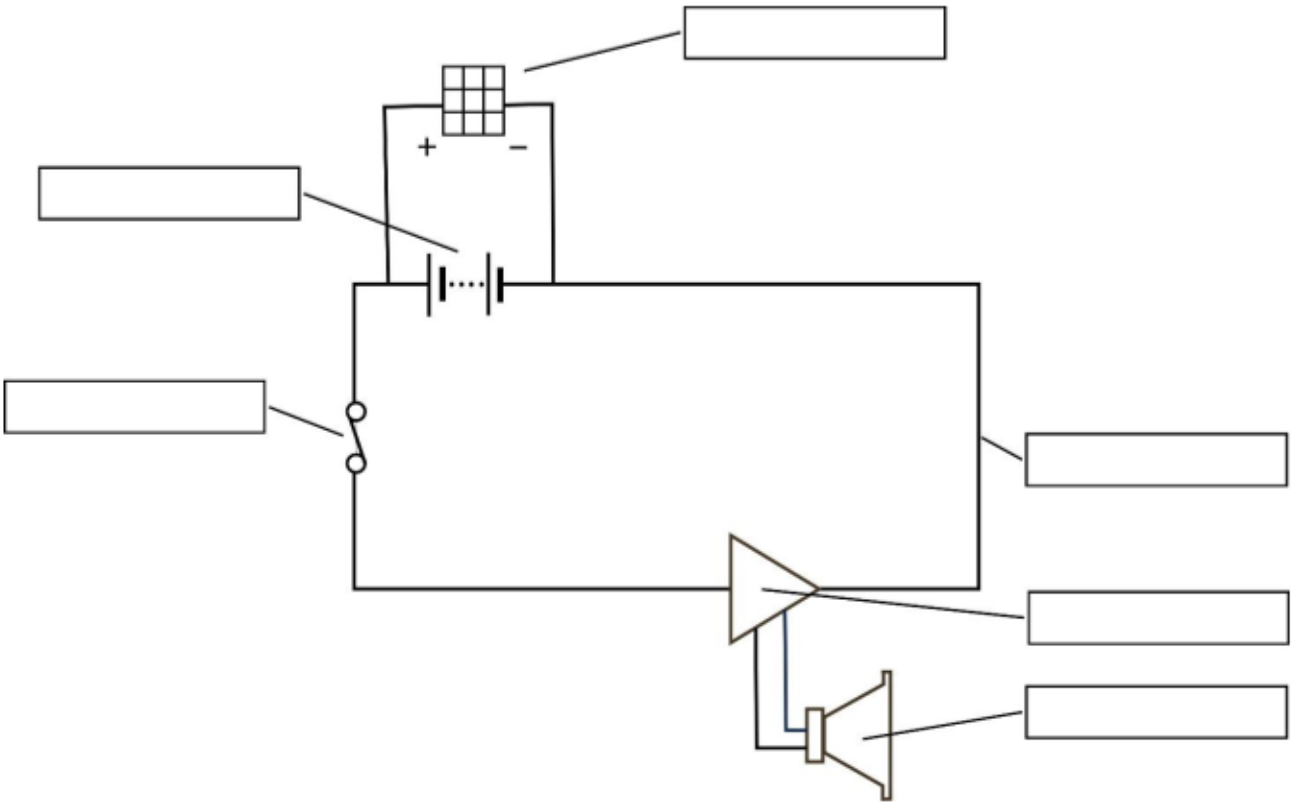
The call systems provided as part of this project are made up of a source of power, a speaker an amplifier memory stick with recordings of the swift calls, electrical cable and a power cable. Alternative options include a solar powered system or simply playing an mp3 player from a nearby windowsill.

ACTIVITY 6: Call system electrical circuit

KS2 /KS3

Label the parts of the electric circuit for a solar powered swift call system.

Wire	battery	speaker	Amplifier	closed switch	solar panel
					



Bird calls and song

Birds call or sing for many different reasons; it is a way of communication much like we talk or use noises.

It could be to claim or defend a territory, “Go away! This is my space!”, or to sound an alarm that a predator is nearby, “Careful! Look out!”. In the spring it may be to attract a mate or strengthen bonds between pairs, “Look at me! I like you!”, or when they are in groups or pairs, it is to communicate or to flock, “Let’s stay together! Come on come on”.

How do birds call or sing?

Birds have a special organ called a syrinx that is at the top of the bird’s throat. They pull air into their throat and the syrinx vibrates and makes the noise.

Some people find bird calls very hard to learn so they use something called mnemonics to help. This is a short, catchy word or sentence that sounds similar to the sound. For example, “caw” is a mnemonic for a crow’s call and “cock-a-doodle-doo” for a cockerel.

Birds of a feather flock together

Have you ever heard the phrase “birds of a feather flock together”?

If you’ve ever watched birds, sometimes you can see them flying together in “a flock”, which is always made up of the same kind of birds.

For example, you might see a group of swifts flying together. You usually won’t see a sparrow, a buzzard and a crow in a flock.

Why do birds “flock” together?

Scientists believe that birds tend to flock together because there’s safety in numbers. There are lots of eyes to spot and warn about danger and it can confuse and scare predators.

ACTIVITY 7: Call or sound drawings

1. Play the children the swift calls several times at the same time as showing them a picture of a swift. This will help make a connection between the sound and the bird.

2. Ask the children to close their eyes and listen carefully whilst playing the call several more times. Can they describe the sound?
   - Are the sounds high or low?
   - Long or short?
   - Fast or slow?
   - Close or far away?
   - Is anything repeated?
   - Can the children guess what they may be communication or "saying"?
   - Who are they communicating with and why? Even the best ornithologists or bird scientists can only guess what it all means!

3. Discuss how they could help remember the calls.

4. Perhaps "draw" the sound. This is really what a musical score is, and you have to be able to "read" the music to understand sound.

5. Ask the children to try to "draw" the sound or represent in the air as they listen with their eyes shut.

6. If there is a common shape show the children and describe how it could be seen to represent the sound.

7. Next ask them to try to draw the sounds they hear on a piece of paper.
   - Is there a particular colour?
   - Thick or thin lines
   - Shapes or patterns?

8. Repeat the process with the swallow calls and house martin calls and use them as sound drawings.

Swift, swallow, house martin and other bird calls can be found on the RSPB website:

Swift	www.rspb.org.uk/birds-and-wildlife/swift
Swallow	www.rspb.org.uk/birds-and-wildlife/swallow
House martins	www.rspb.org.uk/birds-and-wildlife/house-martin

6. Swifts, wildlife and the law

Swifts are fully protected by UK law so it is illegal to kill or harm them, to damage their nests whilst in use or take their eggs.

What you can do about wildlife crime

The first thing to work out is whether the thing you've seen or heard about is a crime.

Most police forces have at least one wildlife crime officer and many have dedicated units. They also work with partner agencies to investigate, prevent and tackle wildlife crime.

If you think a crime has happened:

- don't disturb the scene
- don't touch or remove dead animals or birds (in the case of some protected species, if you take possession of the dead animal, you could be committing an offence)
- record as many details as you can; date, time, location, details of anyone involved
- if possible, take photos or video of the scene
- write down any registration numbers of any vehicles involved
- don't put yourself at risk and don't approach anyone, contact the police

Report it

If you think a wildlife crime is being committed then contact the police by reporting a crime online.

If a crime is happening or someone is in danger, call 999. If you have a hearing or speech impairment, use their textphone service 18000 or text them on 999 if you've pre-registered with the emergencySMS service. You can also report wildlife crime anonymously to Crimestoppers by calling 0800 555 111.

7. Migration

Migration or hibernation

In the winter some animals "hibernate" or sleep in the UK, hiding from the cold and because there isn't much food to eat. Animals that hibernate include bats, hedgehogs, dormice and some insects.

Other animals, including many birds, "migrate" or fly where it is much warmer and where the insects are active so the birds don't starve.

Swifts, swallows and house martins that spend summer breeding in Rhondda Cynon Taf have to fly over some very harsh conditions. The snow-covered mountains of the French Pyrenees, then the fierce dry heat of the Sahara Desert to get to the rainforest and warmer climate in the Congo basin, Zimbabwe and Mozambique.

Swifts migrate 3,400 miles twice a year and stop off to "refuel" in places like Portugal and France along the way.

Spring and summer

During spring, as it gets warmer, swifts return to Rhondda Cynon Taf as there are lots of flying insects during the long summer days. It's generally not too hot or too cold so all in all, it is a great place to build nests, lay eggs and bring up a "brood" of chicks or swiftlets.

If the weather is bad and parents can't hunt, young swifts in the nest can drop their body temperature and become "torpid" or sleepy to save energy, but they can only do this for short periods.

Swifts can be heard on hot summer evenings having "screaming parties", calling as they fly and catch insects high in the sky.

Autumn and winter

In the autumn, as it cools down, the swiftlets have fledged or left the nest and as it gets dark earlier, swifts start their migration back to Africa where there will be food and warmer weather.

Migration mystery

Scientists have fitted tiny electronic devices with GPS (Global Positioning Systems) to track a few swifts and these have been recorded travelling from 12,400 to 17,000 miles - the longest migration for a land bird!!

As the birds are so small and they have to fly so far, the tracker needs to be really small and light so it doesn't interfere with their migration or normal behaviour.

This is an example of the type that has been used on swifts, the Lotk PP10

Smaller than a 1 pence piece and weighing 1gm, less than 1/3 of a 1 pence piece! Photo by Jo Mullett About Wild Wales

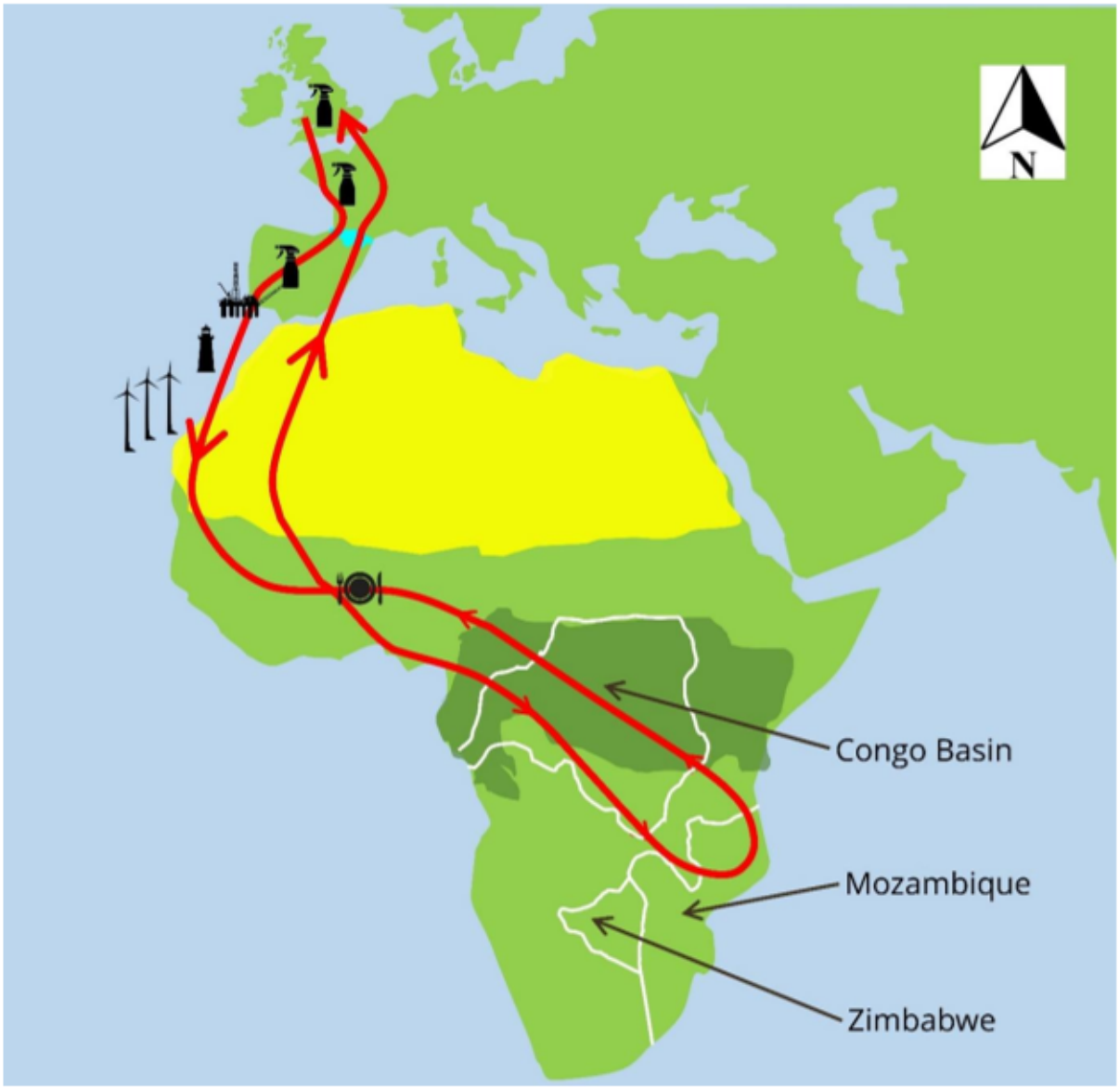
Even with a few trackers, very little is known about swift migration, including the route most of them take or how they find their way.

It is thought they can use the sun, moon and stars, landmarks such as rivers, coastlines or mountains, use the Earth's magnetic field, their sense of smell, or even just follow other birds.

No matter how they do it, migration is truly incredible.

Swift Migration Route

The route swifts follow, tracked by scientists, with some of the problems they face:



Key	
	Sea
	Land
	Swift migration route
	Desert
	Rainforest
	Mountains
	Oil rig
	Lighthouse
	Wind farm
	Pesticides
	Eaten by people

ACTIVITY 8: Create a swift migration journey wheel

Follow the migration journey of a swift in the journey wheel. Watch it travel from South Africa to Wales and learn about the challenges birds face as they travel.

How to make your swallow migration journey wheel

1. Print out the attached worksheets with the 2 wheels.
2. Colour in the pictures that illustrate the swallow's migration journey in wheel number one.
3. Cut out the two wheels and cut out the hole in wheel number two.
4. Place the second wheel over the first wheel and attach them together in the centre using a pin.
5. Add a bit of blue tac to the pointy bit of the pin after it has poked through so there is nothing sharp. If you do not have pins, you can leave them unattached and just move the wheel around or find another object like a pencil to insert through the middle.
6. Go on the journey of a swift's migration and learn about the challenges migrating birds face by moving the hole around the wheel and reading the story for each section.

These are the 8 chapters of the swift migration wheel:

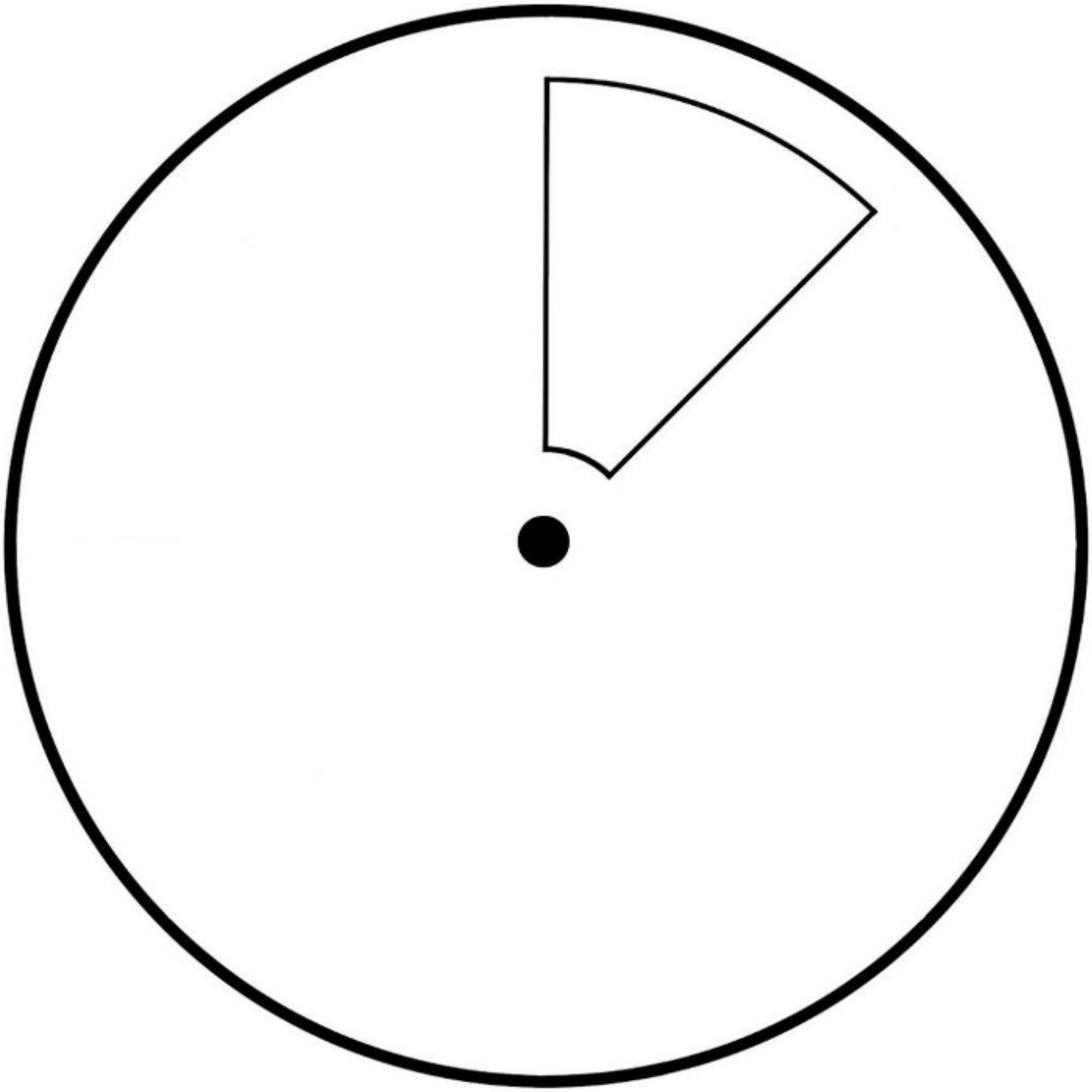
1. It's April and the swifts are in South Africa, just about ready to migrate back to Wales for the summer and to breed.
2. They fly for long days, hoping for good weather, but extreme weather is becoming more common due to climate change.
3. They need to cross the Sahara Desert, but the area is getting dryer and bigger. It is a long and difficult crossing with little food.
4. The swifts must keep up their energy because now they must fly over the sea to get to Europe!
5. But more and more man-made obstacles are appearing that they must avoid – like offshore oil rigs and windfarms.
6. Birds of prey also wait in the cliffs for the perfect moment to swoop for them!
7. The swifts have made it past all these challenges – they are very tired and hungry now. They usually stop in a wetland for a snack, but they have been built upon!
8. Hooray – the swift has finally arrived in Wales! Hopefully, there are enough insects here to eat and enough mud to build a nest

Adapted from and thanks to the Scottish Wildlife Trusts' "Create a swallow migration journey wheel"

Migration wheel template 1.

Reproduced with kind permission from the Scottish Wildlife Trust

Migration wheel template 2.



ACTIVITY 9: "Wish you were here" postcard

1. Write a postcard as if you were a swift that has just arrived back in Rhondda Cynon Taf after a long flight from Africa.

2. You can be on your own or with a few other swifts.

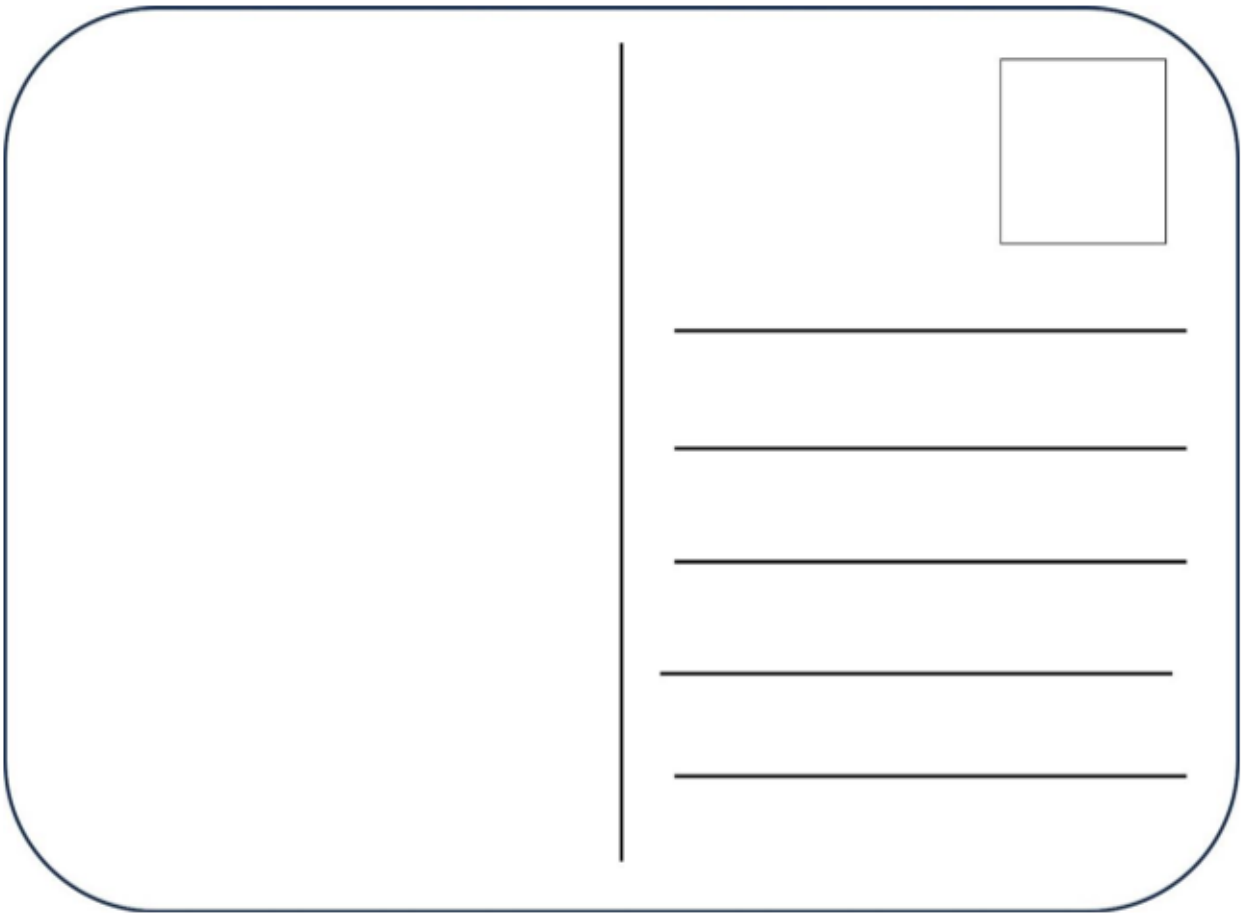
3. You heard the bird call system and just landed in your school and found the new nest sites, along with a few other birds.

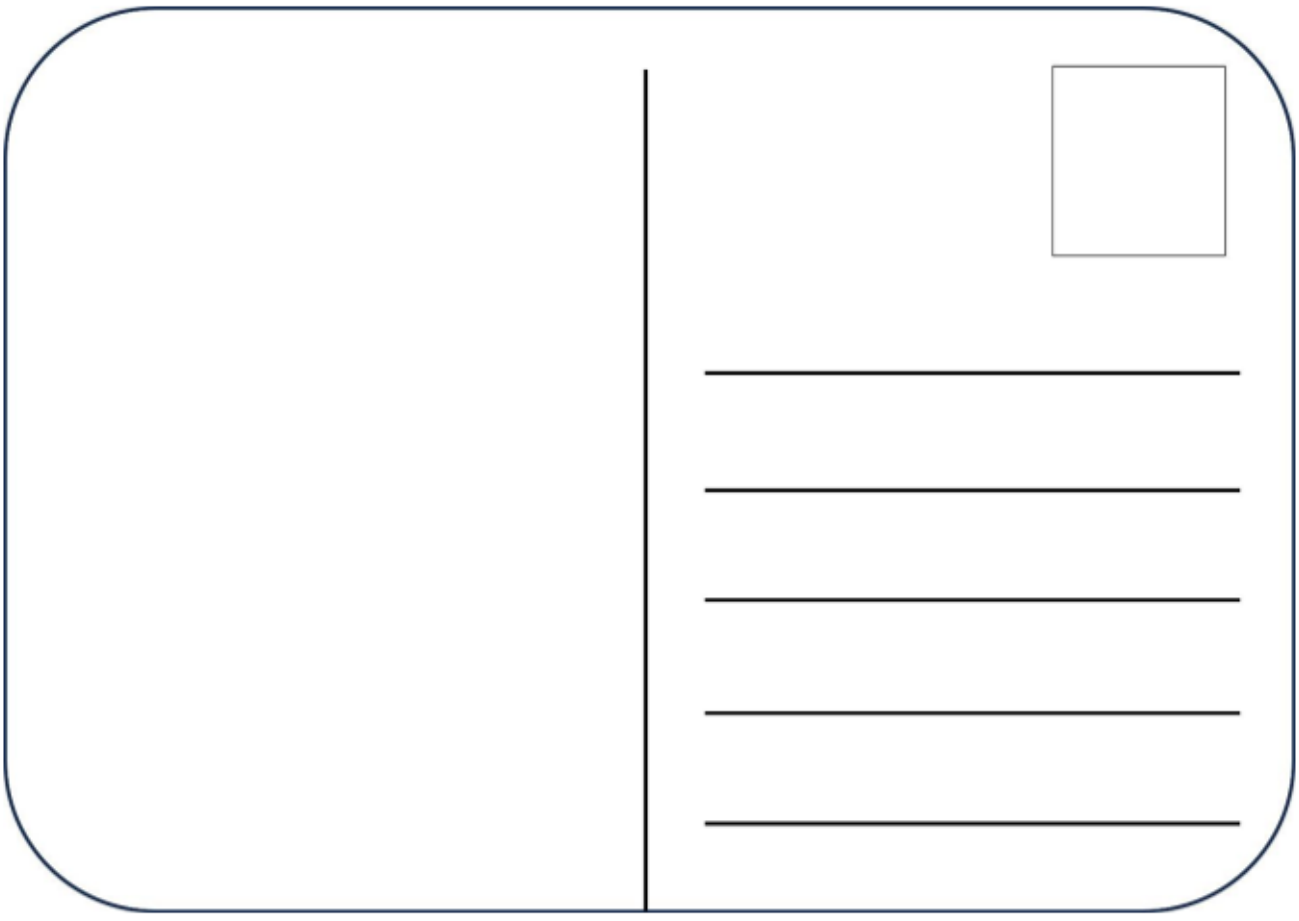
4. You will be writing to a friend back in Africa, perhaps an animal that doesn't migrate.

5. You can write about things like
   - Are you tired or aching from flying such a long way?
   - Was it a good journey? Did you got lost or see any exciting sights on the way?
   - How was the weather?
   - What are you eating, and do you like it?
   - What the new nest boxes are like and where are they?
   - How you found them?
   - How are you building a nest? Is there material for you nearby?
   - What the children are like and what you see them doing?

6. On your postcard don't forget to
   - include a greeting
   - write a few sentences
   - add the correct address and post code
   - attach a stamp
   - draw a picture
   - end your postcard with a sign off.

Post card templates





Stamps

What are stamps?

Stamps have been used for a long time to send post across the world. In 1840, the first adhesive postage stamp in the world, the Penny Black, was issued in the UK. It was a black 1d (one old pence) stamp featuring the head of Queen Victoria.

All UK stamps are produced by Royal Mail and feature the head of the reigning King or Queen. The stamp designs also indicate their value, such as 1st Class or 2nd Class.

Royal Mail also produce sets of 'special stamps'. Special stamps are issued each month and they commemorate and celebrate a range of different subjects, including British wildlife.

In April 2022, ten special stamps were designed to celebrate some of the birds that migrate to the UK in the spring and summer, including the swift and the swallow.

A "post mark" shows a stamp has been used with the place, date, and time of posting, to make sure you can't use the stamps again.

A swift stamp

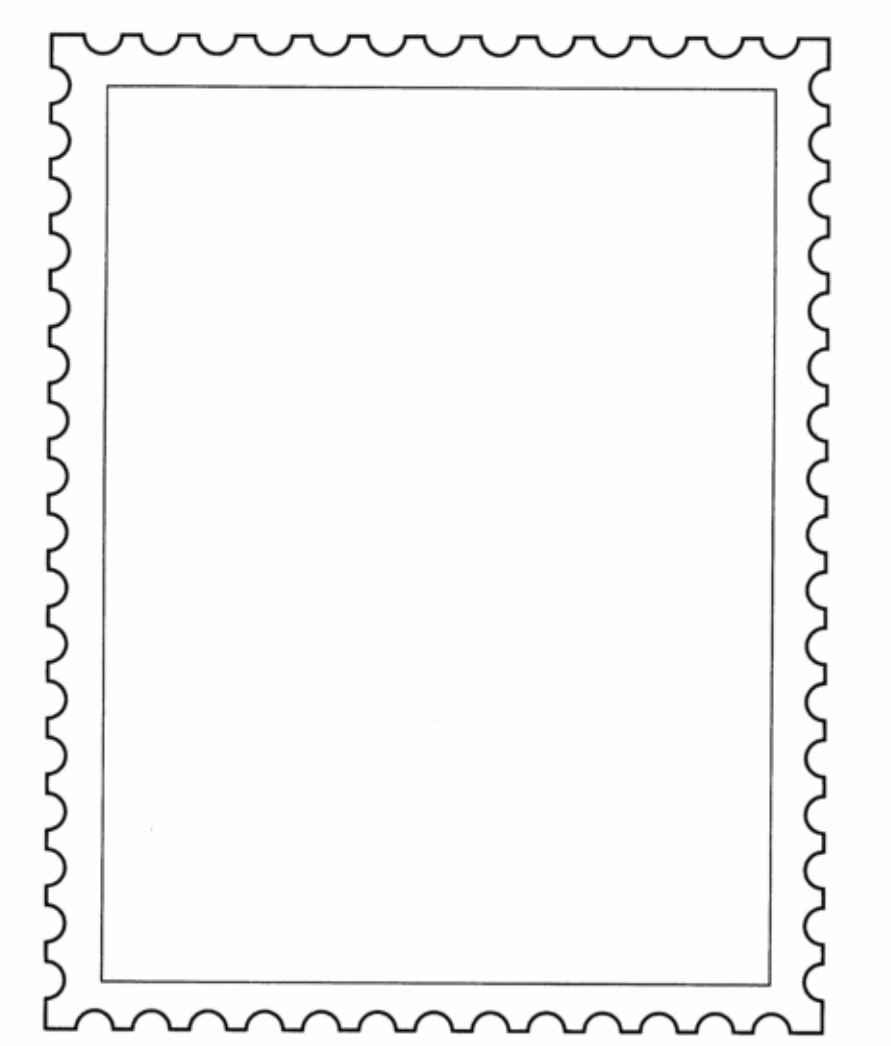
A swallow stamp

A swallow "post mark"

ACTIVITY 10: Design your own swift stamp

1. Discuss the children's knowledge and experience of stamps
   - Are all stamps the same?
   - Do you think they'll look different in other countries?
   - Has anyone seen a stamp from a different country?
   - What do you think will happen to stamps in the future?
   - How do you feel when you get post in the mail?
2. They could use the template and let them design a swift stamp.
3. Ask them to use their stamps on their postcards from the **"Wish you were here"** postcard activity on from the swift's winter migration journey to and from Africa.

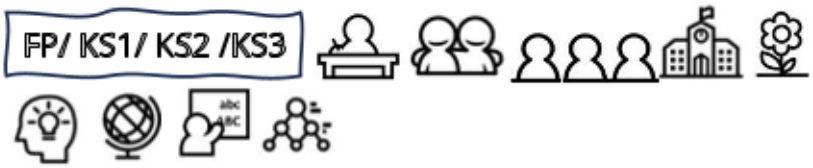
Stamp template



ACTIVITY 11: Make your own magnetic compass

1. Cut out a small cube of foam or cork, about 5cm long on each side.
2. Lay a needle, paperclip or safety pin flat against a magnet.
3. Stick the needle all the way through your piece of foam or cork.
4. Float the foam or cork and needle in your glass of water (this is your compass).
5. Place your compass on a flat surface and watch what happens.

ACTIVITY 12: North, South, East, West game



1. In a large space such as the hall or outside, designate each wall as North, South, East or West – use a compass to work out the correct direction if possible
2. The teacher calls out a point of the compass. The last pupil to arrive in the correct place is out
3. Next add in a few threats that the swift may come into conflict with during their migration and the children have to stop running and mime a reaction to the threat. For example, high mountains, so maybe running on the top on tip toes, or a rainforest so sweeping away lush vegetation, a desert – crawling along the floor. Other threats could be strong winds or heavy rain.
4. For increasing levels of difficultly add
    - Blindfolds and see if they can navigate by sound – the teacher calls from the northern wall, "it's autumn", so the children have to head south
    - intermediate points such as North-East or South-West

8. Birds in trouble – threats facing our swifts

Swift numbers have fallen by 58% since 1995. That is a huge loss and they have been added to the "red-list" in Britain as they are at risk of extinction. They face problems at all stages of their lives and all points along their migration route, making it really important we do all we can to help them where we can.

Tall buildings and structures

Swifts can easily fly into tall manmade buildings. As they are not natural structures, the birds don't expect them, such as tall buildings, windfarms, oil rigs and lighthouses.

Lack of spaces to nest

So many nesting spaces have been lost, we need to create new sites to help them.

Bad weather and climate change

During their migration, strong winds, cold or wet weather can kill swifts. They also can't hunt so may starve. Heatwaves are really dangerous for chicks and is becoming more of a problem.

Pesticides

Throughout the world pesticides are used by farmers to stop damage to their crops. However, so many insects are killed, even the ones that don't eat crops, meaning swifts and many other animals starve, especially in the UK when they have chicks to feed.

Disease

There are many different illnesses that affect birds and avian flu has been devastating for so many. Luckily, so far, swifts don't appear to have been affected too much.

Natural Predators

Eurasian hobbies, sparrowhawks, buzzards and some owls hunt and eat swifts, although this is a natural process and they live in balance with each other.

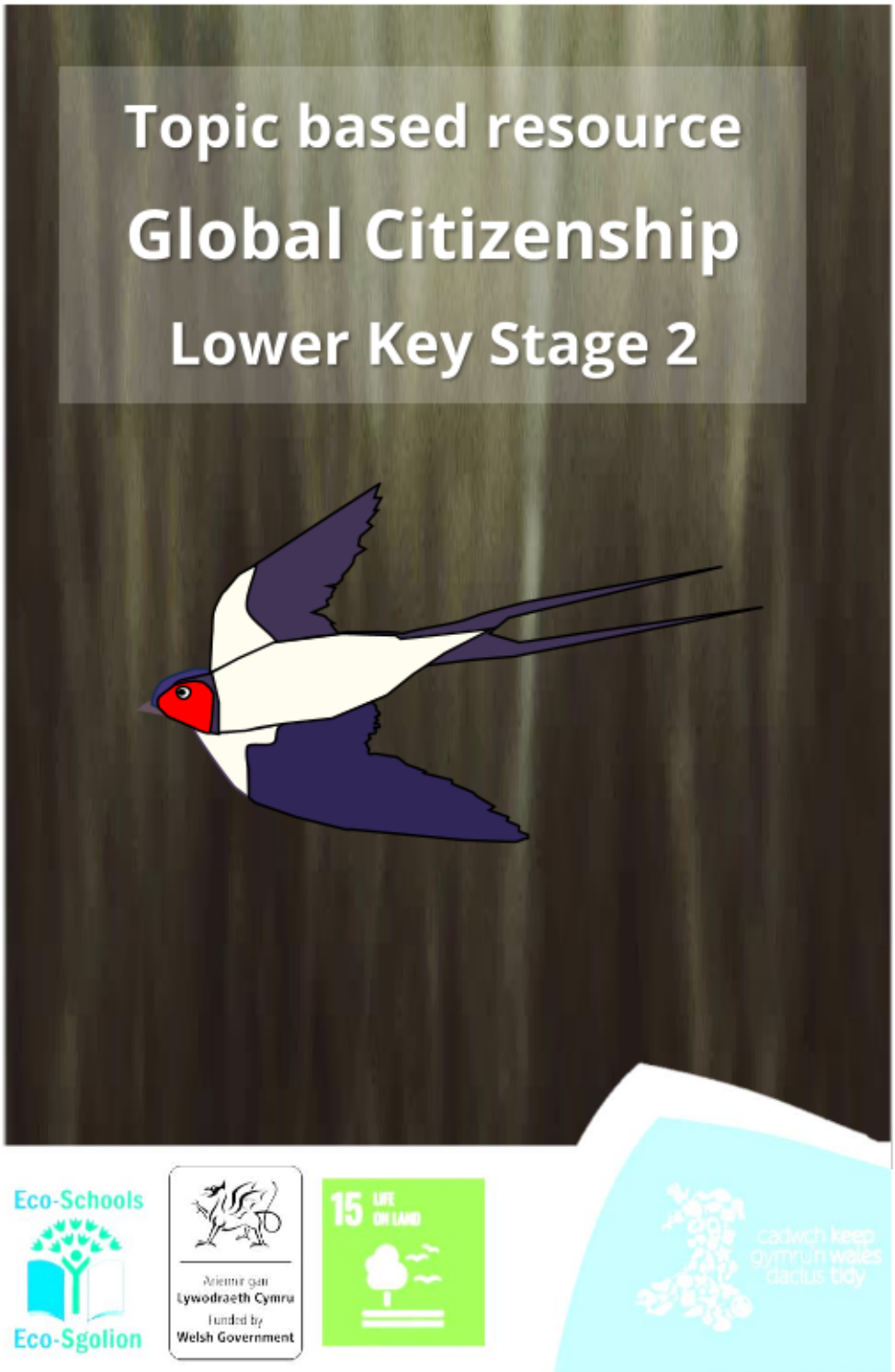
Food

In some parts of the world people hunt and eat swifts.

Exhaustion and stress

If a swift lives through all of these threats, it can leave them stressed and exhausted, so they need peace and quiet in order to recover before they can breed, and then again after breeding to build up reserves for the journey south again.

ACTIVITY 13: Keep Wales Tidy's migration game



[The migration game](https://keepwalestidy.cymru/eco-schools/wp-content/uploads/sites/4/2021/09/Global-Citizenship-LKS2-migration.pdf) is a free online resource from [Keep Wales Tidy](https://keepwalestidy.cymru/eco-schools/wp-content/uploads/sites/4/2021/09/Global-Citizenship-LKS2-migration.pdf) (Topic based resource: Global Citizenship, Lower Key Stage 2)

It explains that there are many dangers that swallows encounter as they cross different countries and cultures.

The children will take different roles in the game with some being the swallows migrating and others representing the dangers, who will try to stop them.

Although this resource is about swallows, very similar threats face swifts and house martins.

https://keepwalestidy.cymru/eco-schools/wp-content/uploads/sites/4/2021/09/Global-Citizenship-LKS2-migration.pdf

ACTIVITY 14: Travel review

1. Write a travel review for a website as if you are a swift coming back to Wales after a winter in Africa, using the template.

2. Use the details you have learnt so far about swifts, including from the migration wheel journey and Keep Wales Tidy's migration game to write about things like:

   - Where did you stay in the winter?
   - What was the food like?
   - What was the weather like?
   - Who was with you?
   - Would you recommend it to a friend? Thumbs up or down!
   - If yes or no explain why
   - How would you improve the trip next time?

Travel review template

Where did you stay for the winter?	What was the food like?
What was the weather like?	Who was with you?
Would you recommend it to a friend? 	How many stars would you give the trip out of 5? 

Explain why you would or would not recommend trip?

How would you improve the trip next time?

9. Recording through Citizen science – Swift Mapper

Swift Mapper

Swift Mapper is used by conservationists to find out where swifts are nesting to help these sites and to see where would be best for new nesting sites. We need your records to help focus action to reverse the decline of these amazing birds.

New nest sites

The closer new nest sites are to existing swift colonies, the greater the chance they will be used.

What records does Swift Mapper want you to collect?

Swift Mapper collects four different types of information:

- **Occupied nest:** where swifts are observed using a nest site cavity
- **Nest box:** nesting sites deliberately provided for swifts - nest boxes, nest bricks, etc. Whether occupied yet or not
- **Screaming party:** records of swifts flying at around roof height, often flying fast in groups, and often giving loud screaming calls. This behaviour means swifts may be breeding nearby
- **Previously occupied:** where swifts were known to nest previously, but no longer

There is no need to submit more than one record per location per year, unless, for example a nest box becomes occupied, or you see a greater number of swifts in a screaming party. But please do submit records each year.

Please do not record any other sightings of swifts flying high, swifts seen flying over countryside or water bodies. Many of these will be feeding swifts; we know they can travel long distances each day to find food, so these records will not tell us anything useful about where swifts are nesting. These sightings and other wildlife records can also be reported through the SEWBReC Wildlife Recording page and the LERC app.

ACTIVITY 15: Search using Swift Mapper

Swift Mapper is really easy to use and is a great place to find and record swifts in the UK.

1. Open the website www.swiftmapper.org.uk/ .

2. It will show a map of the UK with all the swift records in a certain area in the blue ring (see overleaf the maps of the UK, Wales, Rhonnda Cynon Taf and Pontypridd).

3. Use the search bar at the top and add in your school's address and press return. This will zoom you into a closer map .

4. You can zoom in even closer and out using plus + and minus – icons on the menu on the left.

5. The records that have been sent in are split into 4 different groups as show by the symbols below

Occupied nest

Nest box

Screaming party

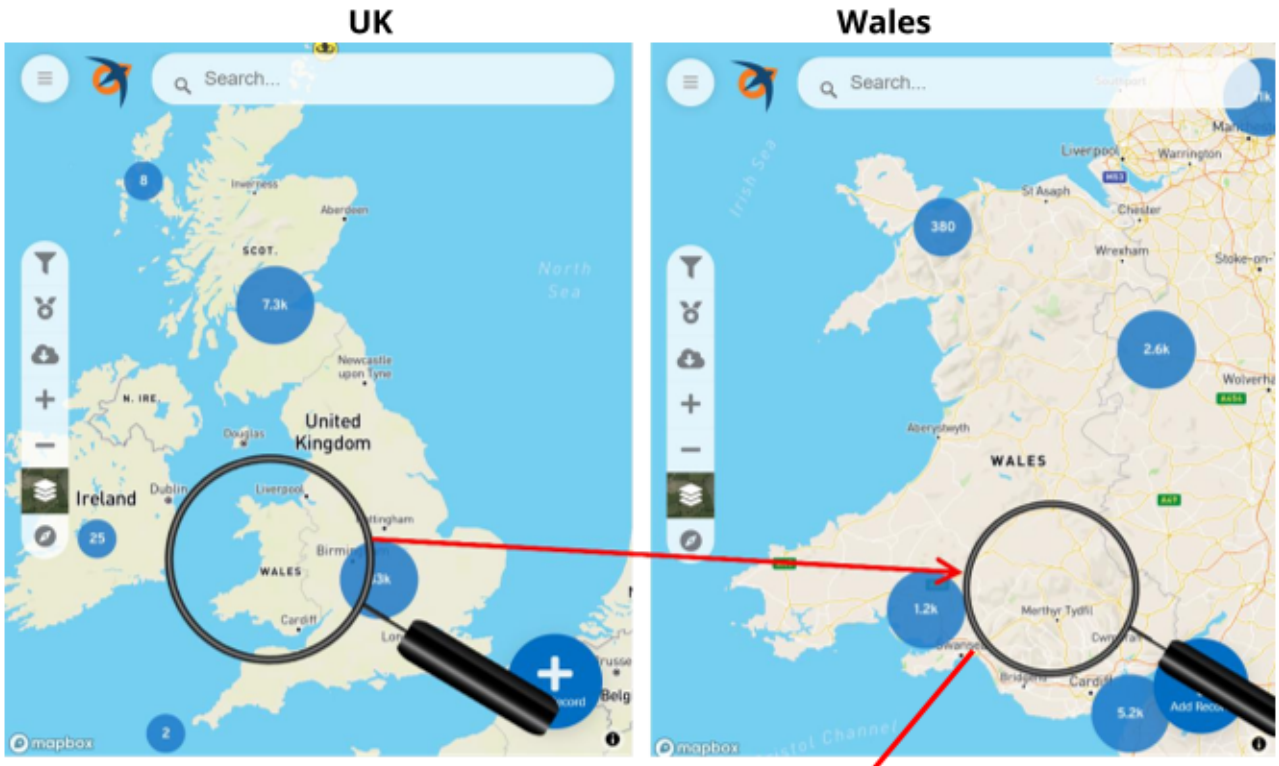
Previously occupied nest

6. Search the map and find out
   - Are there any records of swifts close to your school or home?
   - What are the types of records?

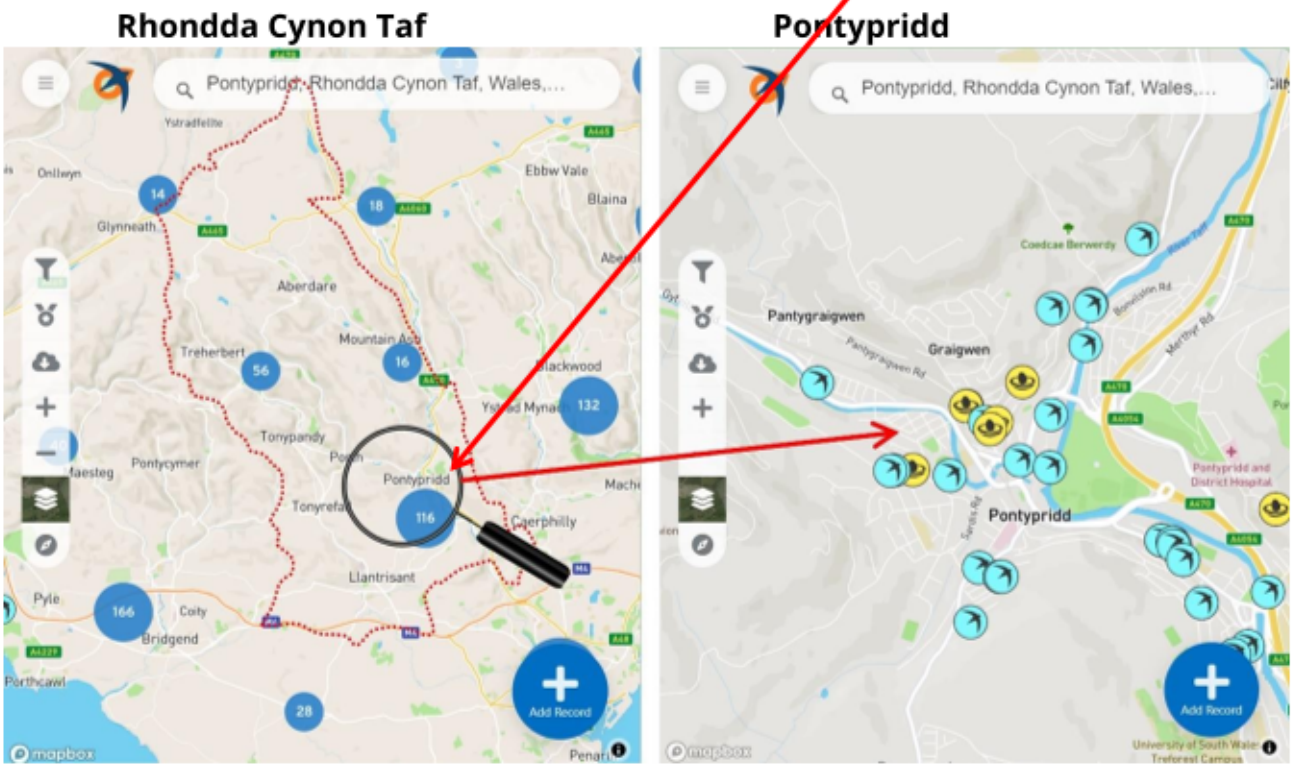
7. If you see are lucky enough to see swifts nesting or close to your school as part of your monitoring (see ACTIVITY 4: swift monitoring diary), as a whole class you can add the record to swift mapper as a whole class. You will need to register and login to do this.

What Swift Mapper looks like

Below are the different scales of map you can see



The blue circles with numbers represent the number of records in that area



Key

13 Number of records in area

Occupied nest

Nest box

Screaming party

Previously occupied

SEWBReC Recording Wildlife

SEWBReC (South East Wales Biodiversity Records Centre) is the Local Biological Records Centre for Rhondda Cynon Taf, where anyone can submit a record of nature.

The information is then available to help ensure that decisions which affect local biodiversity are made using the best data.

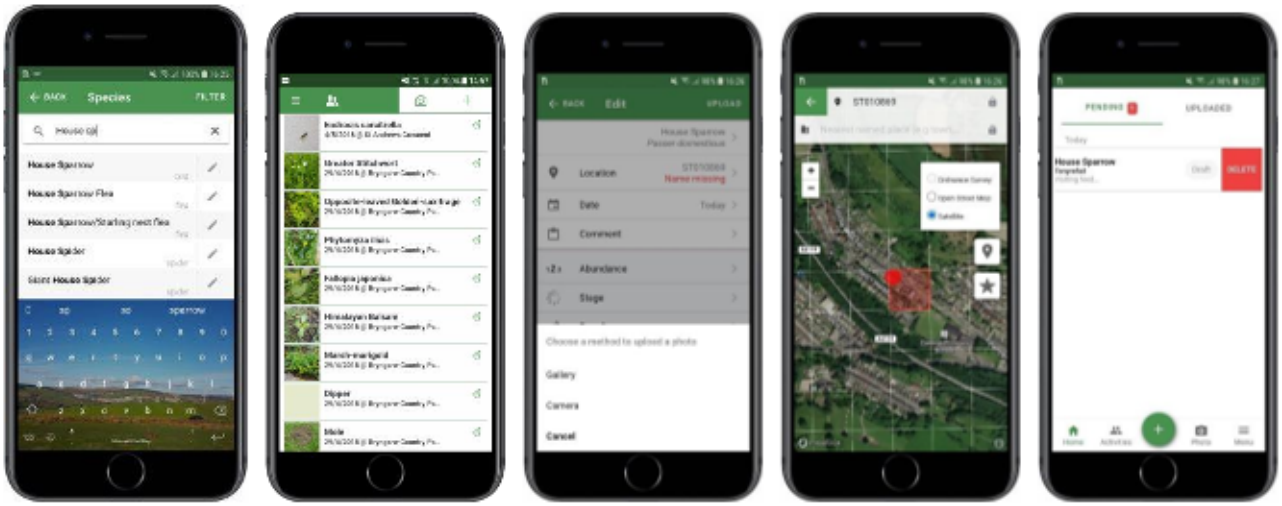
Learn more about recording on YouTube at Introduction to recording course

What is wildlife or biological recording?

Recording is the process of taking a wildlife observation and turning it into a useful, shareable piece of data by making note of four parts:

1. **WHAT:** species has been spotted
2. **WHERE:** the location name and grid reference
3. **WHEN:** the date
4. **WHO:** the recorder's name

Records of ALL species are welcome (no matter how common), ideally sent in via the online database SEWBReC, the LERC Wales App (below) or via Excel.



Recording Grant scheme http://www.sewbrec.org.uk/grant

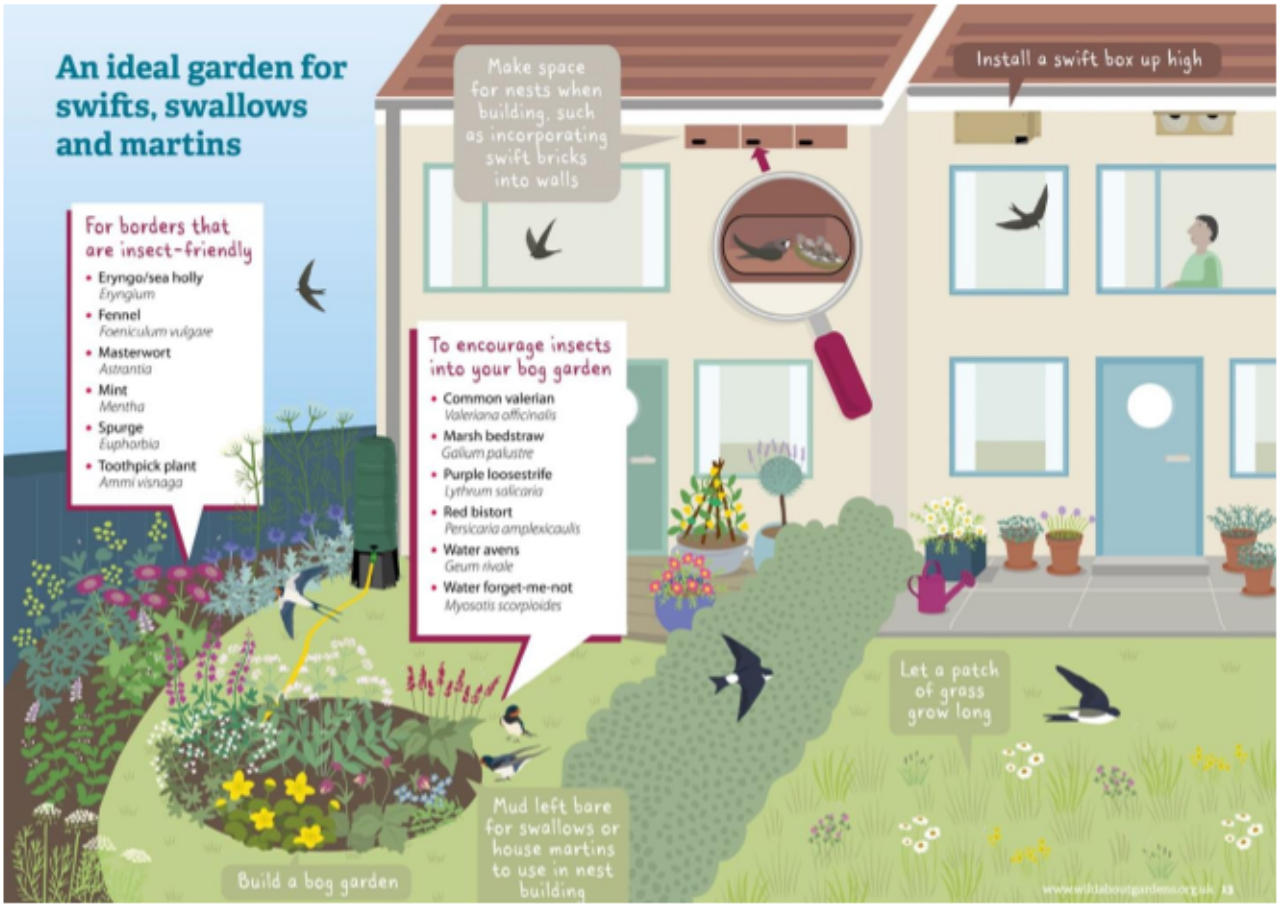
You can apply for grants to support wildlife recording up to £500 for items such as:

- Identification guides
- Attending courses
- Running courses & workshops
- Equipment, e.g. binoculars/ cameras
- Software
- Travel expenses

10. How can we help swifts?

School grounds for swifts (swallows and martins)

"Wild About Highflyers" is the Wildlife Trusts' and Royal Horticultural Society's' (RHS) campaign to ask people to garden for swifts, swallows and house martins.



Provide nesting sites

Provide nesting boxes, bricks and cups in suitable places for swifts, swallows or house martins.

Provide nesting material

Leave things like dead twigs, moss, dried grass, wool, hair or feathers out for birds to collect for lining or to make natural nest cups.

Add a water feature

Probably the single best thing you can add for wildlife!

Plant for insects and pollinators

Use plants that benefit insects and pollinators and especially native plants. See www.rhs.org.uk/science/conservation-biodiversity/wildlife/plants-for-pollinators

School grounds for nature

The Wildlife Trusts' website has so many actions suitable for schools to help biodiversity, but the principles are to provide water, shelter and food.

General

How to help wildlife at school
How to grow a mini meadow

Water

How to build a pond
How to provide water for wildlife
How to make a bog garden
How to create a mini pond

Shelter

How to make a bee hotel
How to make a log shelter
How to build a hedgehog home
How to build a bug mansion
How to build a swift box

Food

How to attract bumblebees to your garden
How to attract butterflies to your garden
The best plants for bees and pollinators
Grow wildlife-friendly herbs

Let's Talk Wildflowers

Rhondda Cynon Taf boasts some of the richest grasslands and heathlands in South Wales but they are under threat. Let's Talk Wildflowers aims to extend and connect these grasslands making them a much more robust network. Use the interactive map to see what is near you and how your school may be able to help.

Rhondda Cynon Taf has "cut and collect" machines that takes away old grass which makes sure the wildflower seeds aren't smothered with "thatch" and reduces fertility to stop the "weedy" species and grasses getting too aggressive and taking over.

No Mow May

97% of flower-rich meadows have been lost since the 1970's and they are vital food and overwintering spaces for pollinators, like bees and butterflies, which in turn feed the swifts.

Plantlife have an annual campaign called No Mow May, calling on all garden owners and green space managers not to mow during May, ensuring wildflowers can flower and set seed to live another year. Once you've mastered No Mow May, you could try leaving it for longer, to see what wildflowers come up in the Summer months.

Let's Talk Trees

Rhondda Cynon Taf also has a Let's Talk Trees webpage where you can tell them about your favourite wood or tree, send them photos and tell them what you think about our wonderful woodlands. You can also find out more about trees and biodiversity in Rhondda Cynon Taf through their picture galleries, ranging from Fantastic Fungi to Ancient Woodlands!

Swift First Aid & Care

Swifts are wild animals and belong in the wild. They can suffer with stress, with the shock easily able to kill them, so you need to act quickly if you find one and minimise your contact.

If you find a swift on the ground it means it is ill, too young to fly or has had an accident. It is really important you get specialist help as soon as possible but

DON'T throw it in the air DON'T feed it DON'T delay getting help!

1. Put your Swift in a quiet, warm, safe, calm and clean environment - a ventilated shoe box is ideal with torn up newspaper and put it somewhere away from any disturbance with a light sheet over to make it a dark.

2. Wildlife generally fears humans and if it is too noisy or disturbed it can go into shock which can kill.

3. Take a photo and if you can, also weigh the bird.

4. Give it water by running a wetted cotton bud around the edge of the beak avoiding the nostrils

5. Don't try and care for the Swift yourself. It is high-risk, difficult, expensive and time-consuming

6. Contact a Carer from the list below, giving them as much information as you can about your bird

7. GET THE SWIFT HELP AS SOON AS POSSIBLE BY CONTACTING:

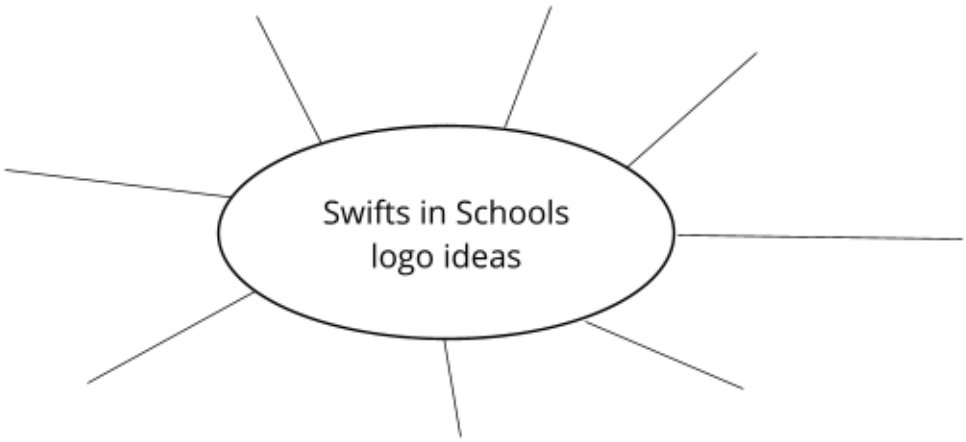
Contacts
Alan Rosney alanrosney@gmail.com, 07906 558489
RSPCA Merthyr Tydfil Clinic 0300 123 0725
RSPCA Cymru 0300 1234 999
Gower Bird Hospital 01792 371630

ACTIVITY 16: Logo design competition

1. Below are some logos for bird groups and projects
    - What is a logo? What makes a good logo?
    - Which do you think is the best logo? Why? Is it the colour, shape, simplicity?
    - Can you find other logos for wildlife groups?
    - Do you know your school logo?
2. In groups, design a logo for your Swifts in Schools Project.
3. Thing about what your logo will look like. Use a spider diagram to help your ideas.
    - What do you think should be on the logo?
    - What colours and shape will you use?
4. Have a ballot or vote to see which logo is your class favourite.
5. Use the logo on posters or information about the "Swifts in Schools" project.

1. rspb
2. BTO British Trust for Ornithology
3. Welsh Ornithological Society / Cymdeithas Adaryddol Cymru
4. Swift Bird of the Borough
5. Glamorgan Bird Club
6. Wakefield & District Swift Group
7. Stroud Swift Group
8. Lewes Swift Supporters

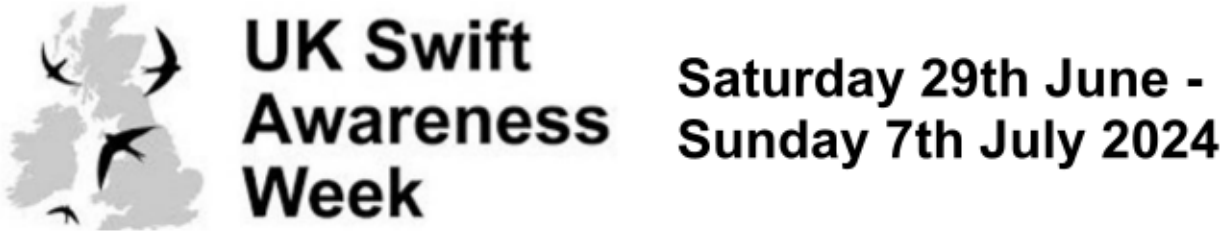
Use a spider diagram to help you with your design ideas for your logo



ACTIVITY 17: Design a poster for the Swifts in Schools Project

1. In small groups or pairs study the posters below. Discuss;
   - Who uses posters ? What are they used for?
   - What subject they are covering?
   - What is the poster trying to do?
   - Did they persuade you to change in any way?
   - Do you know more about the subject after seeing the poster?
   - Ask the groups to feedback what they thought.
2. Ask the children to design a poster for a specific reason that is to let people know in the community what the school is doing to help swifts through the "Swifts in Schools" Project.
3. Once finished, ask the children where they would like to share or put their posters
4. Ask the children where would be good places to display the posters?

ACTIVITY 18: Design an event for Swift Awareness Week



Swift Awareness Week was first held in 2018 with many groups around the country celebrating these wonderful birds, raising awareness of its decline and encouraging people to do something about it.

You may want to put on a special event to celebrate and teach people in the community about swifts or maybe an assembly can be dedicated to these gorgeous, tough little birds!

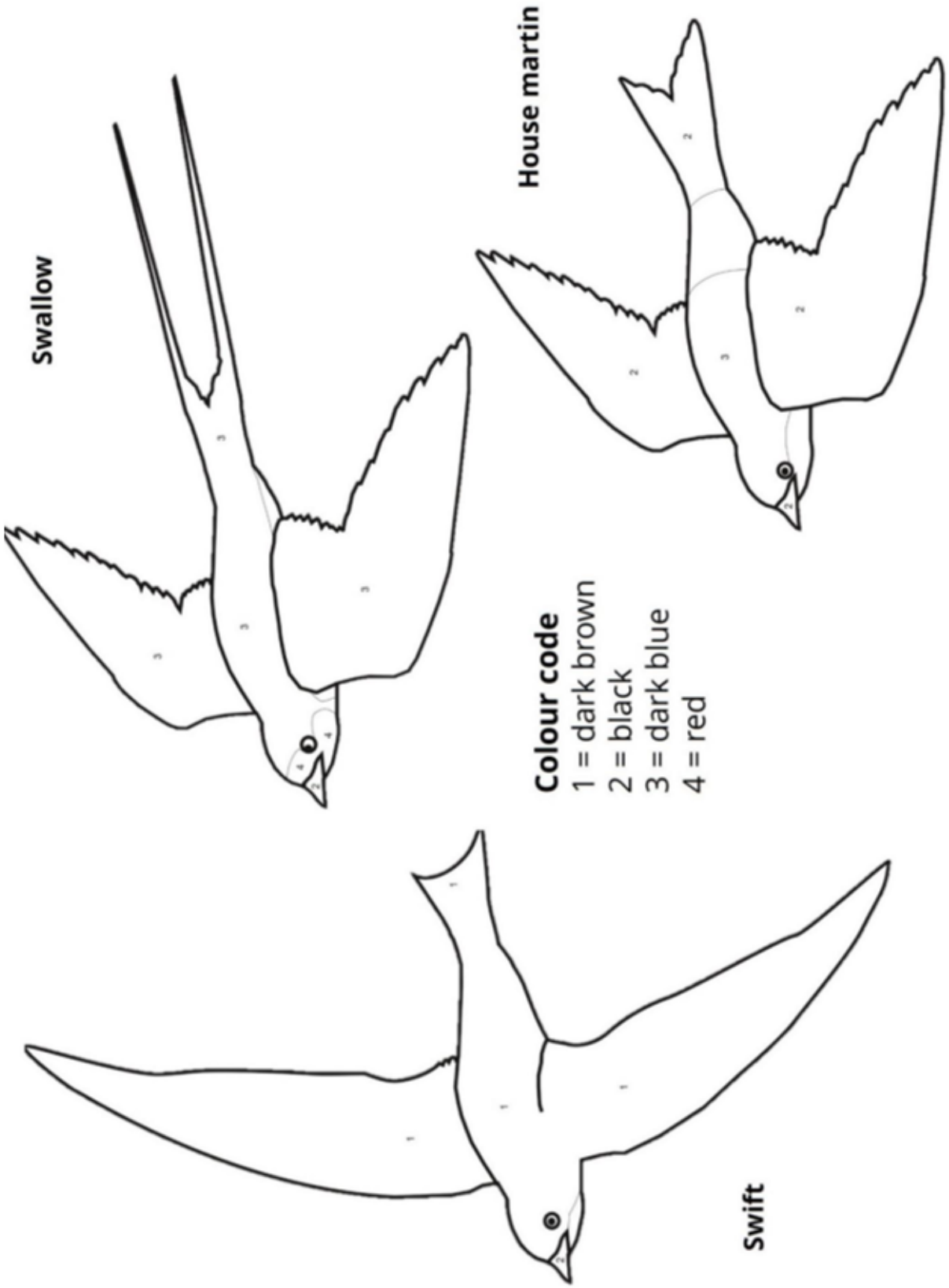
For ideas and link to other events, as well as to get your event added to the list, visit the Swift Awareness Week Facebook page (https://www.facebook.com/swiftweek/?locale=en_GB)

11. Other activities

ID Poster from a past campaign called "Is Martin at home?

ACTIVITY 19: Swift, swallow and house martin colouring sheet

FP/ KS1/ KS2 /KS3

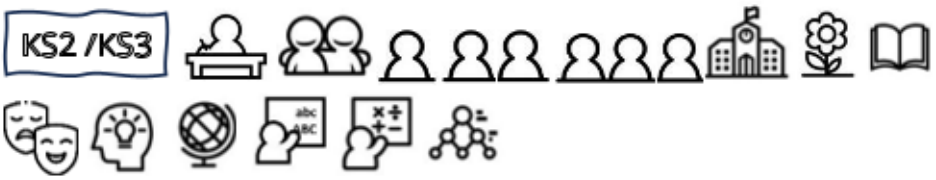


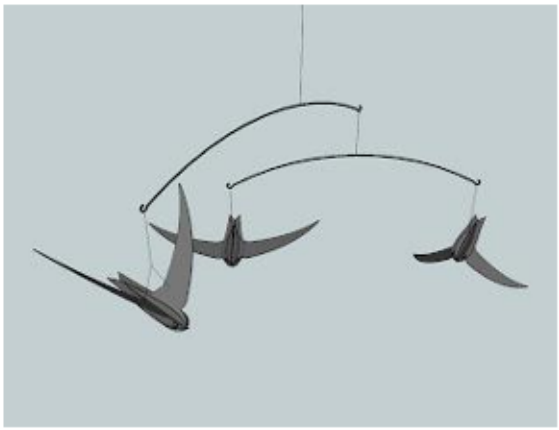
ACTIVITY 20: Word search

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

ACTION
AFRICA
AUTUMN
BEAK
BIRD
BOLUS
BONE
BOX
BROOD
CALL
CLIMATE
COMMUNITY
EAVES
EGG
FEATHER
FLEDGE
FLIGHT
FLOCK
HIBERNATE
HOUSE
HOVERFLY
INSECTS
JUVENILE
MARTIN
MIGRATE
NATURE
NEST
POLLUTION
REDUCED
ROOST
SCHOOL
SPRING
SUMMER
SWALLOW
SWIFT
THREAT
WALES
WING
WINTER

ACTIVITY 21: Swift mobile





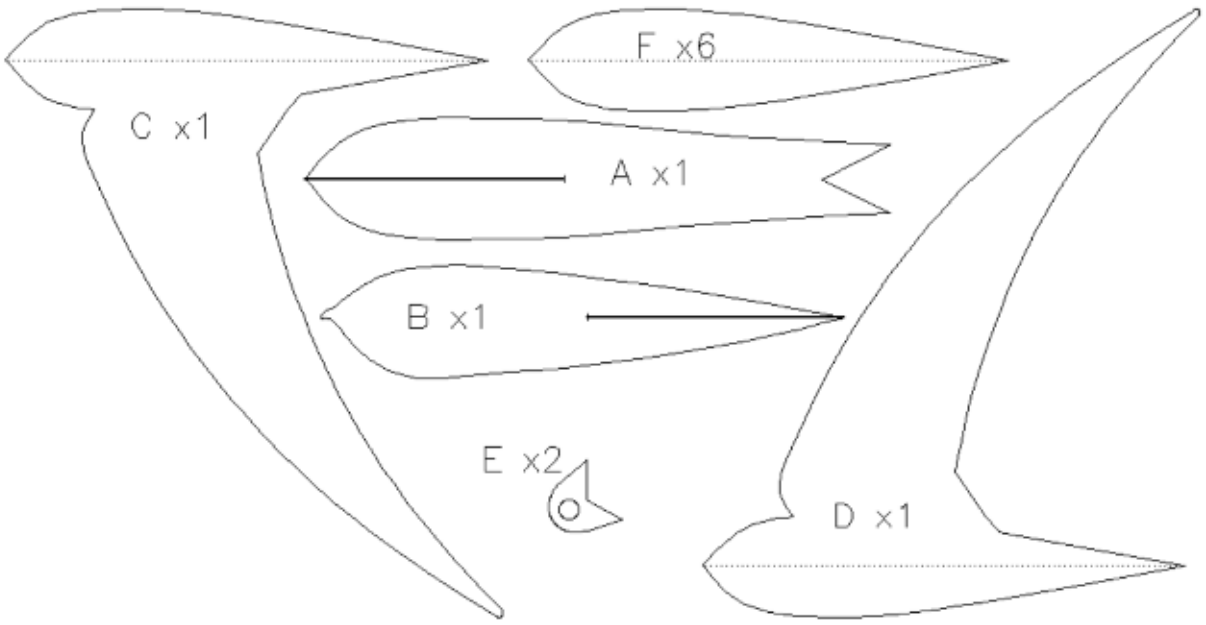
These amazing 3D mobiles have been designed and reproduced with kind permission of Action for Swifts

They are intricate so perhaps ask the children to do them at home with parents.

However, the resulting mobile will really show what swifts look like and help them gain an appreciation of these great birds.

12 pieces are required to assemble each swift:

https://actionforswifts.blogspot.com/2011/02/how-to-make-swift-mobile.html



You will require child-friendly glue which sets reasonably quickly, but also allows time for the pieces to slide over each other and align perfectly (e. g. White School Glue or White PVA Glue used with a brush, or Pritt applied liberally). Paper clips or clothes pegs are useful for holding things in place while the glue is setting.

Print out the pieces (see associated PDF) onto card, provided your computer printer can handle card. If not, then perfectly good swifts can be made by printing onto white paper, then open up a used cereal package and glue the pieces to the printed side.
It is best to cut out the paper shapes roughly first, then glue them one at a time to the card – this makes removing the bubbles easier.

The next step is to score the fold lines, then cut the pieces accurately with sharp scissors – probably a job for an adult. The slots in pieces A & B need to be carefully cut to a width the same as the card thickness.

The final assembled Swift can be painted black using child-friendly black paint, such as poster paint.

Of course, the shapes can be used as stencils to mark out the pieces with a sharp pencil on black card.

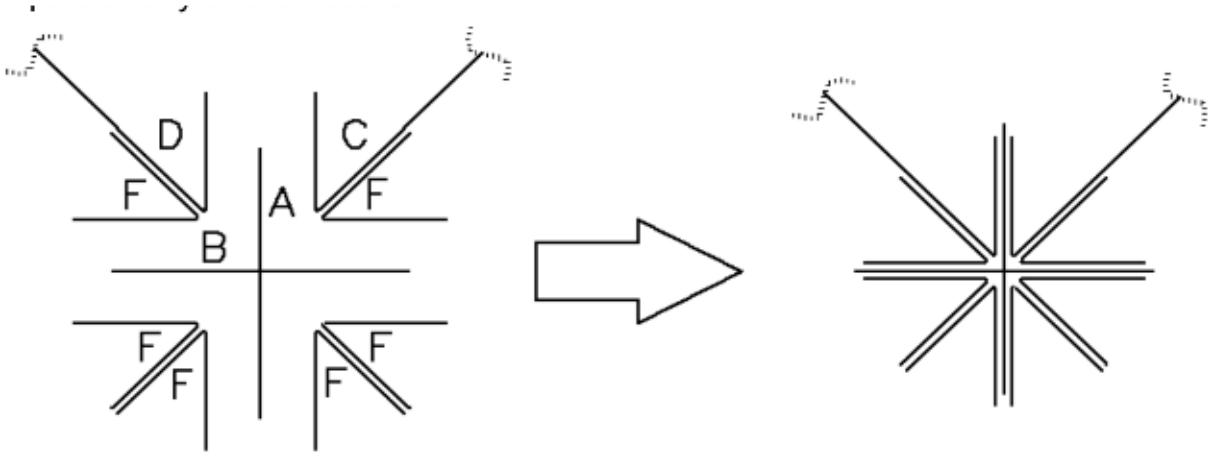
The basic assembly is as follows:

1. Pieces C, D & F need to be folded away from the score line.
2. Slot pieces A & B together, making sure that the small tick marks at the end of the slots align.

There are 3 configurations of Swift: **wings up, wings flat and wings down.**

For the wings up and wings down configurations

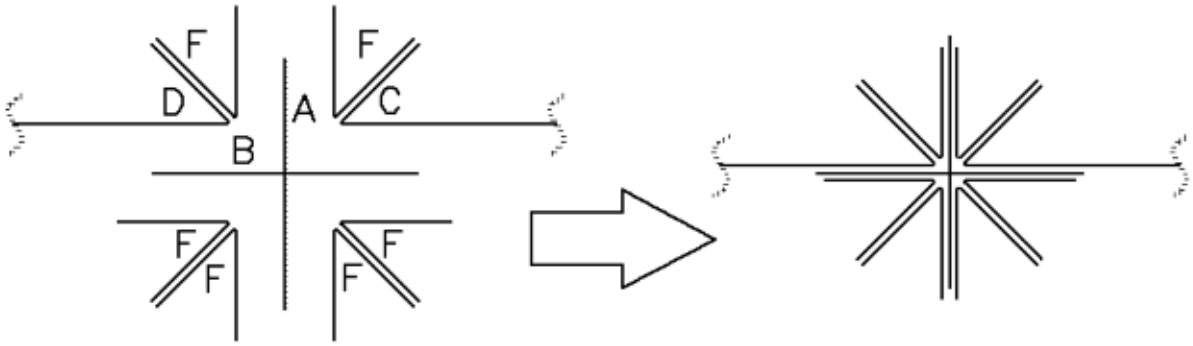
3. The left wing is assembled by gluing D to F and for the right wing glue C to F, as in the following diagram.
4. Glue a pair of F's together (twice) again making sure that the glue is on only one side of the fold.
5. Now assemble the swift by gluing the assembled wings and assembled pairs of F pieces as in this diagram showing the assembly for wings up. For wings down, put the wings below and the F pieces above. Make sure everything aligns nicely, particularly at the head end.



Wings up configuration - view from rear of swift

For the wings flat configuration

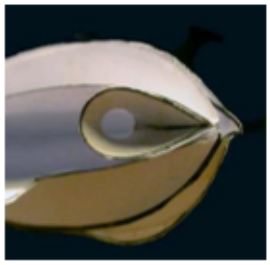
6. Again, glue D to F for the left wing and C to F for the right wing, but now as shown in the following diagram.
7. Now assemble the swift by gluing the assembled wings and assembled pairs of F pieces as in this diagram.:



Wings flat configuration - view from rear of swift

For the Eyes,

8. Bring the two straight edges together, then glue and insert the pieces, on each side of the head.



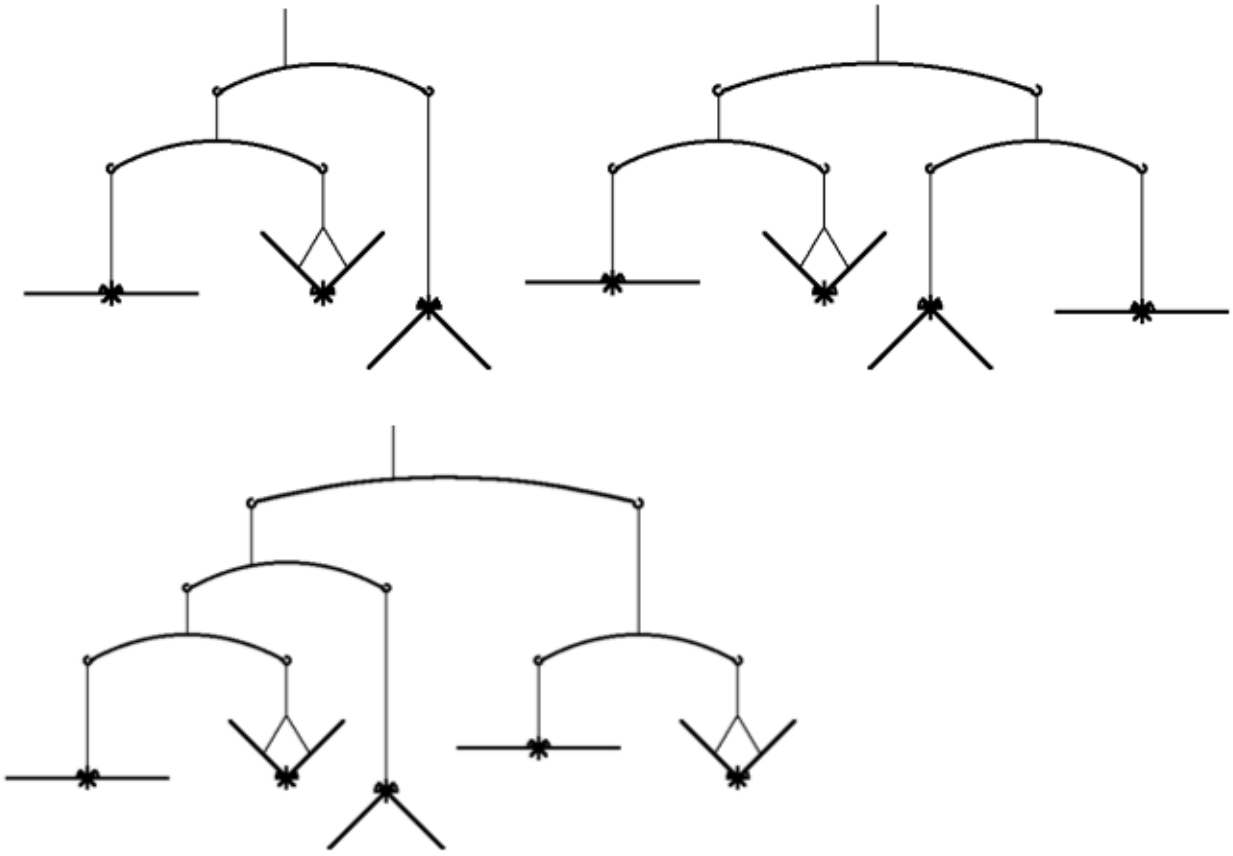
Assembling the Mobile

9. For this you require some wire that is sufficiently stiff to support the weight, but also enables making a small hook at each end with a pair of long-nosed pliers. Wire coat-hangers as used by Dry Cleaners are ideal when hammered straight. The pieces of wire need to be at least long enough to avoid colliding swifts. Collisions can also be avoided by adjusting the relative height of the swifts. For a mobile with 3 swifts, 2 pieces of wire roughly 1.5 times the wing span of a swift are required.

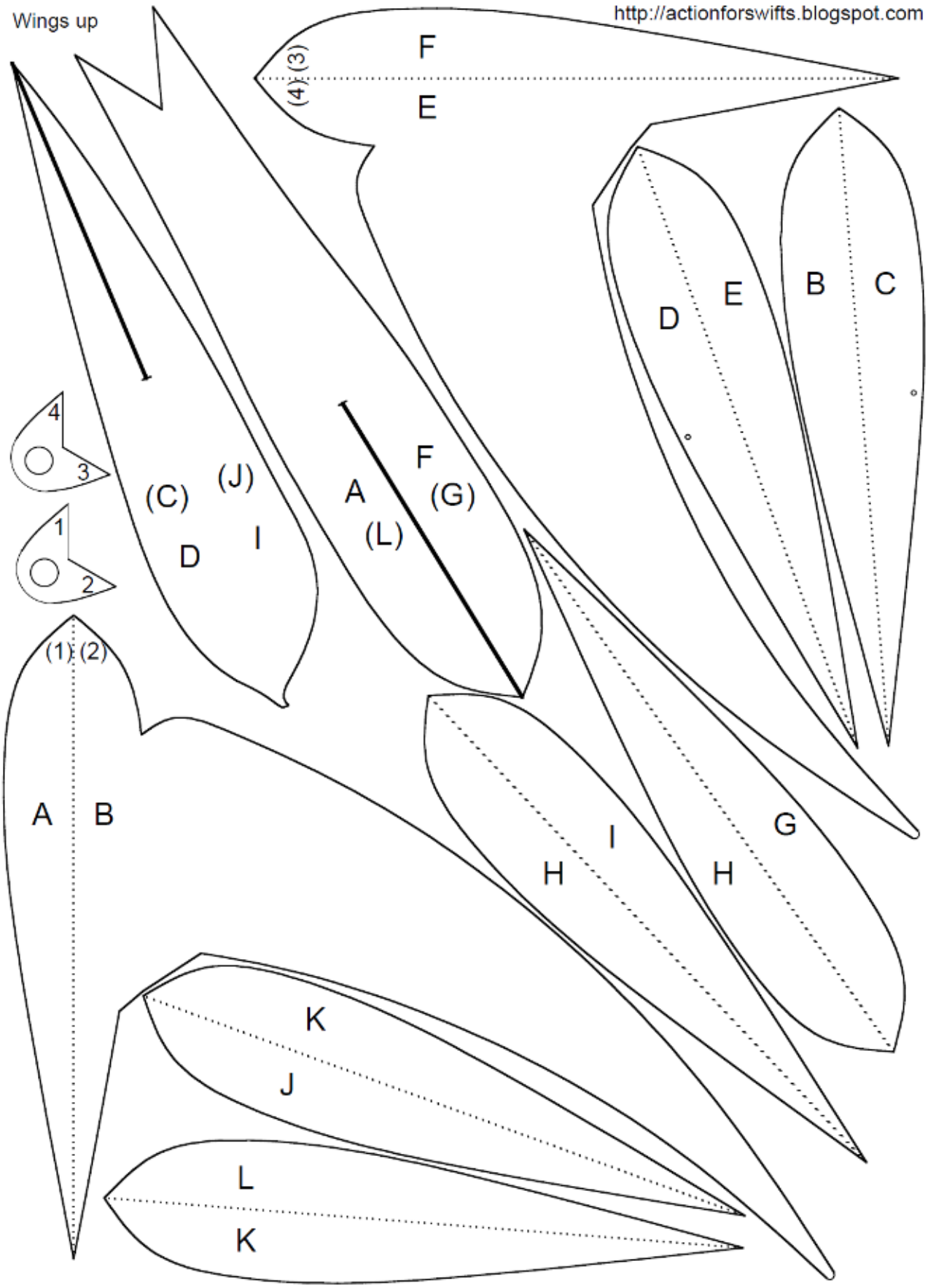
Shape of hanger – designed for stability

10. Each swift can be suspended from a single point directly above the centre of gravity. This is a point ~108mm from the tip of the tail, and no more than 2mm from the top of the back. The easiest way to make small holes is with a bradawl, or other pointed sharp implement, on a hard surface. Thin black thread is best. (note: the diagrams below show a slightly more stable way of suspending the swift with wings up)

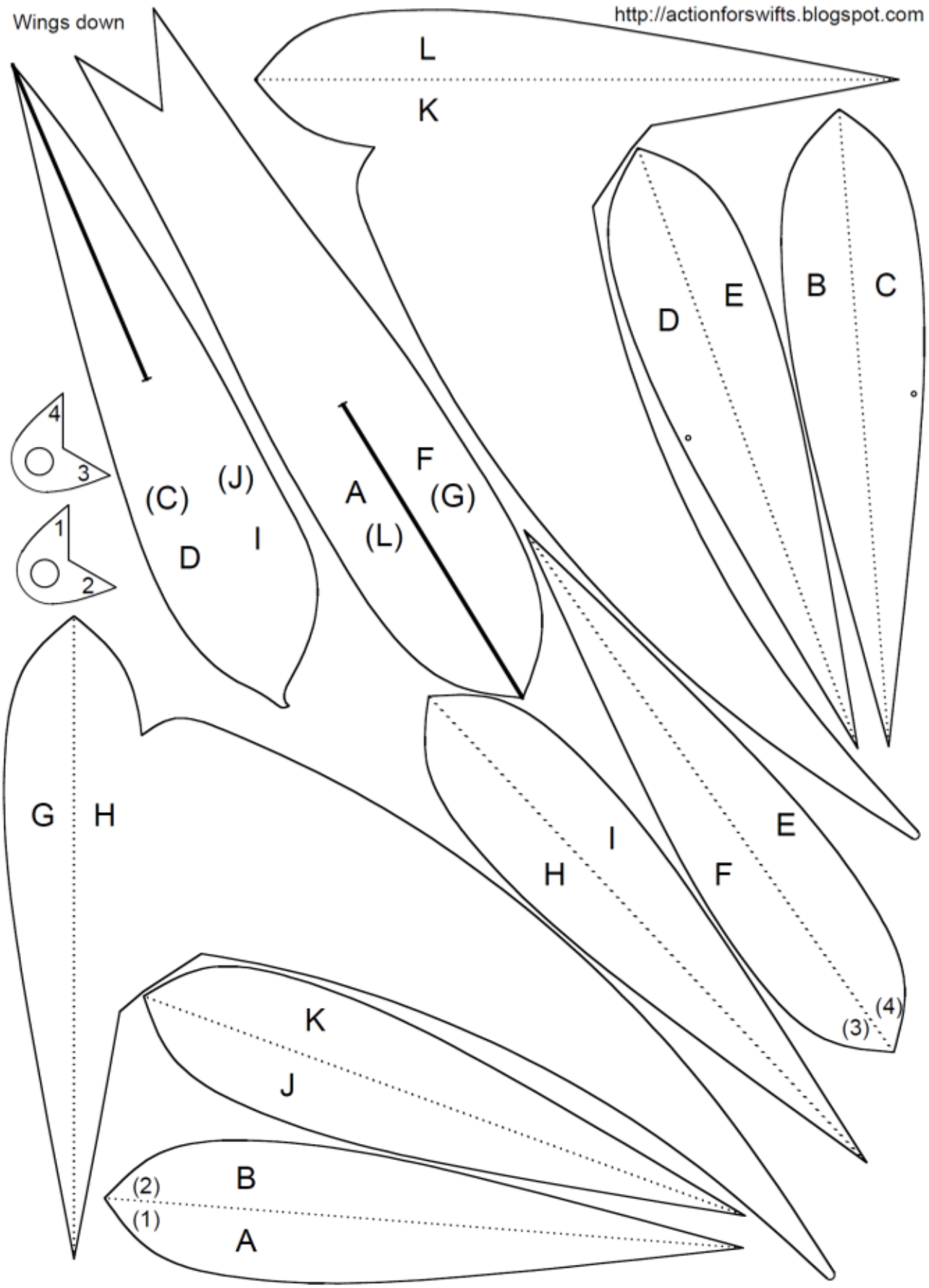
11. Here are some examples of mobiles with 3, 4 and 5 swifts



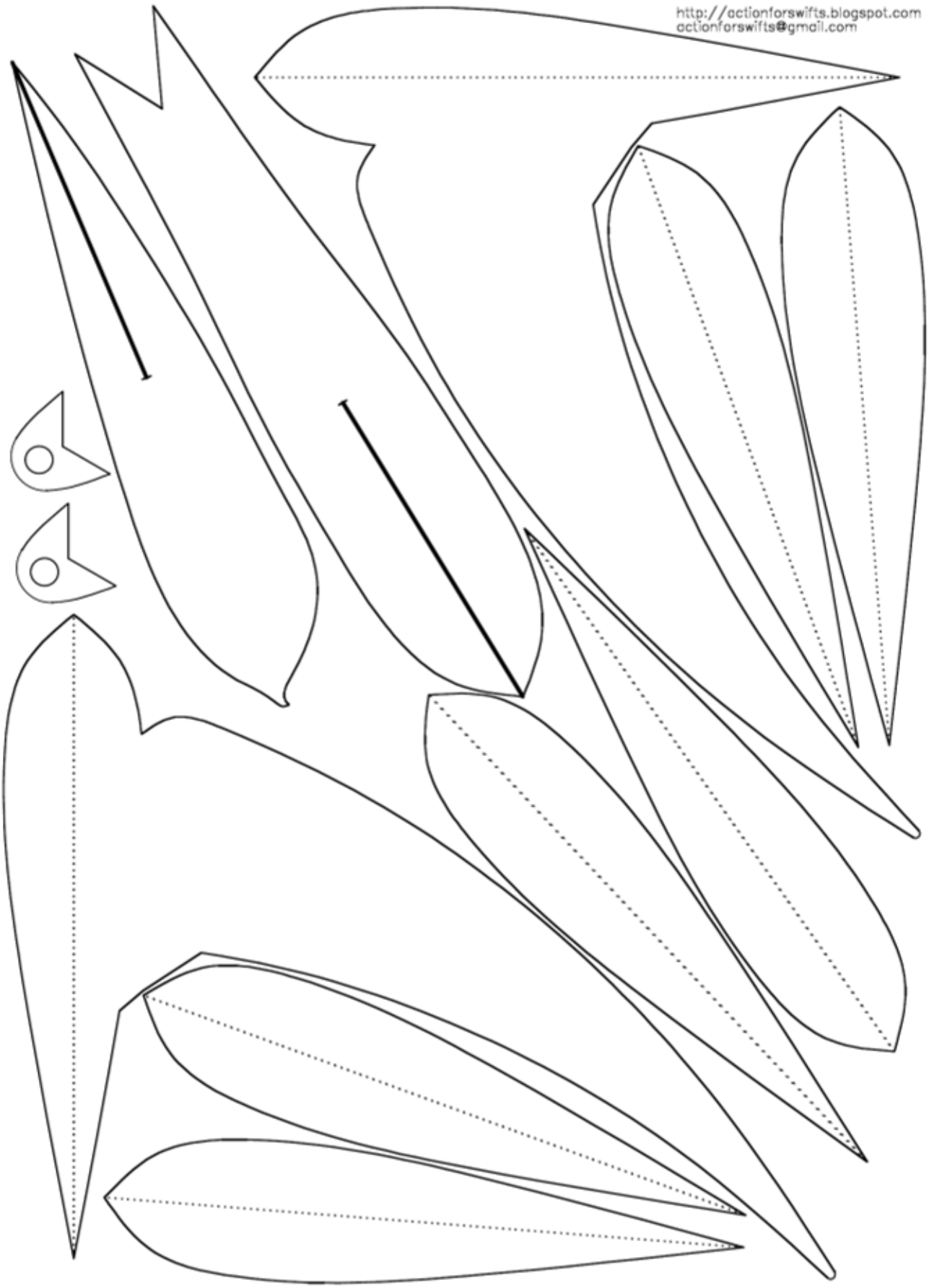
For the wings up configurations



For the wings down configurations



For the wings flat configuration



12. Extra information

Organisations

Action for Swifts is a news and updates blog, sharing information about interesting activities, ideas and thoughts on work to conserve swifts across the UK. It is curated by, and for, people who deeply care about Swifts. https://actionforswifts.blogspot.com

Bird Life International: a network of over 2 million birders, scientists and local volunteers to track, follow, analyse, conserve and understand every bird species in the world. Their goal is to conserve birds, their habitats and global biodiversity, working with people toward sustainability in the use of natural resources.

BTO (British Trust for Ornithology: Founded in 1932, the BTO focusing on providing facts and figures about birds and researching the causes of any changes in their populations. www.bto.org

Glamorgan Bird Club publish an annual Bird Report, organise a full year-long programme of field trips and walks and a series of indoor talks and presentations from October through to April. See https://glamorganbirds.org.uk/ or the Cardiff Bay Swift Tower, which is a Glamorgan Bird Club project .

House Martin Conservation: are a conservation charity covering the UK and Ireland dedicated to the care and protection of the house martin and similar birds. https://housemartinconservation.com

RSPB (Royal Society for the Protection of Birds) is the country's largest nature conservation charity, inspiring everyone to give nature a home. www.rspb.org.uk

Swift Conservation have been providing free advice and assistance on helping Swifts survive since 2003. Their website contains information on how to create and preserve nest places for swifts, downloadable leaflets and DIY nest box designs, advice, first aid and care for injured swifts. www.swift-conservation.org

Swifts Local Network: Local groups dedicated to helping swifts and recording swift sightings in their area. They can help you study Swifts, set up a Swift colony, or persuade your local government, church, school or housing estate to help Swifts.

Welsh Ornithological Society (WOS) is the national body which aims to unify birdwatchers and ornithologists across the whole of Wales. https://birdsin.wales/

Books

Swift: An Epic Story of a Small Bird's Courage by Lorna Hill
Inspired by the swift's incredible 22,000-mile migration journey, this is a moving story about leaving home and finding the courage to overcome immeasurable odds.

- A&C Black Childrens & Educational
- 5–7-year-olds
- ISBN-10 : 1526365251 /ISBN-13 : 978-1526365255

RSPB Spotlight Swifts and Swallows by Mike Unwin
Packed with eye-catching, informative colour photos, and features succinct, detailed text written by a knowledgeable naturalist.

- Bloomsbury Wildlife
- ISBN-10 1472950119/ ISBN-13 978-1472950116

I am a swift I am in trouble: Online picture book aimed at children by **Action for Swifts.** See https://issuu.com/eastmagazine/docs/im_a_swift_booklet__proof_/1

Websites

www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/swift/
www.bto.org/understanding-birds/birdfacts/swift
www.swift-conservation.org/
www.woodlandtrust.org.uk/trees-woods-and-wildlife/animals/birds/swift/

Training

In partnership with Agored Cymru, Outdoor Learning Training Network Wales (OLTNW) has developed a series of Level 1 to 4 qualifications in Outdoor Learning Pedagogy, Outdoor Learning and Play, Forest School, Coastal School and Well-being in Nature.