



The Red-billed Chough

Education Pack



For more information, visit
kentwildlifetrust.org.uk or wildwoodtrust.org

Contents

Introduction	3
Using the Chough Education Pack	4
Curriculum links	
English Literature and Language	5
Science	7
Art	10
Geography	11
History	13
Delivery options	14
Activities	
1: Onomatopoeia in nature	15
2: Telling legends	16
3: Design a coat of arms	17
4: Making ink and a quill	21
5: Chough glove puppet	24
6: Chough paper aeroplane	27
7: Bird beaks workshop	30
8: The Habitat Game	34
9: Minibeasting	36
10: Create a creature	37



Introduction and **purpose**



Kent Wildlife Trust and Wildwood Trust are leading conservation organisations in Kent and the UK. Together with our partners at Paradise Park, English Heritage and others, we are reintroducing the red-billed chough to Dover in Kent, beginning in summer 2023.

The chough is a member of the corvid family and lives in coastal areas. It nests on cliffs and relies on surrounding areas of grassland for food. The chough has a distinctive call which is often heard before the bird itself is seen. It was once widespread along the coast of Kent but has been missing for over 200 years.

The chough appears throughout Kentish culture, featuring on the Canterbury coat of arms and referenced flying over the cliffs of Dover in Shakespeare's King Lear.

The Chough Reintroduction Project

Through a programme of habitat restoration, species reintroduction and monitoring, we are restoring this species to its former population and range.

This will take time and cannot be done without the support of local people. We need to ensure that future generations understand why bringing back the chough to Kent is so important. To this end, we want to work with local schools and young people to develop their motivation to protect their environment and the skills and knowledge to do so.

© RICHARD BIRCHETT



Using the Chough Education Pack

This pack outlines some of the key topics of learning from the Chough Reintroduction Project for students in Key Stage One and Key Stage Two. Kent Wildlife Trust and Wildwood Trust offer workshops for all topics within this pack. These can be delivered within schools, at Kent Wildlife Trust's reserves, or at Wildwood Trust's Wildlife Park.

This pack can also be used independently by teachers and by students as standalone activities.



EXPERIENCE A WILDER KENT

We recommend bringing students to visit the choughs at Wildwood Trust's Wildlife Park or take a trip to Dover Castle and visit chough habitat around the White Cliffs of Dover.

Site visits provide a unique opportunity to inspire pupils to engage with wildlife and conservation, allowing them to experience a Wilder Kent first-hand.

Please see options for how to deliver this pack to your students on **page 5**.

If you have any queries regarding this resource please feel free to contact us using the details below.

GET IN TOUCH



chough@wilderkent.org.uk

Or call us on:



01227 712111

Wildwood Trust Head Office



01622 662012

Kent Wildlife Trust Head Office

Delivery Options

Kent Wildlife Trust and Wildwood Trust can help to deliver the content in this booklet at your school and in a variety of settings outside the classroom.

YEAR GROUPS WE DELIVER TO

- Key Stage 1
- Key Stage 2

LOCATION OPTIONS

- **School site**
- **Wildwood Park**, Wealden Forest Park, Canterbury Rd, Herne Common, Herne Bay CT6 7LQ
- **Kent Wildlife Trust Reserve or Visitor Centre**
- **Dover Castle** which houses an aviary of choughs from spring to autumn

SESSION LENGTHS

- Half day
- Full day
- Multi-day workshops

COSTS

- Please contact us to discuss pricing

Any questions
please contact:
[chough@
wilderkent.org.uk](mailto:chough@wilderkent.org.uk)

Visit Dover Castle



All schools can visit Dover Castle at no cost.

Information about booking a visit can be found here:

english-heritage.org.uk/visit/places/dover-castle/schools/

National Curriculum Links

English Literature and Language

There are a wide range of ways in which English language and literature can be combined with nature and conservation: from introducing new conservation-themed words and encouraging the use of dictionaries, to planning, drafting, and writing a story about a reintroduced species, to listening to and reading nature-themed books.

NATIONAL CURRICULUM POINTS	CHOUGH AND CONSERVATION LINKS	SUGGESTED ACTIVITIES
Key Stage 1		
<ul style="list-style-type: none"> Apply phonic knowledge and skills as the route to decode words. Read accurately by blending sounds in unfamiliar words containing grapheme phoneme correspondences that have been taught. Read common exception words, noting unusual correspondences between spelling and sound and where these occur in the word. 	<ul style="list-style-type: none"> Chough words – words with ‘ough’ in them and all the different sounds they make: <i>e.g. chough, rough, tough, cough, through, though, thought, furlough, thorough, and plough.</i> 	<p>Children write a poem using as many of the words as they can. Example given:</p> <p>ACTIVITY RESOURCE</p> <p>Activity 1 Page 15</p>
<ul style="list-style-type: none"> Read accurately by blending the sounds in words that contain the graphemes taught so far, especially recognising alternative sounds for graphemes. Read further common exception words, noting unusual correspondences between spelling and sound and where these occur in the word. Becoming increasingly familiar with, and retelling, a wider range of stories, fairy stories and traditional tales. 	<ul style="list-style-type: none"> Birds that sound like their calls: <i>Chough, Chiffchaff, Cuckoo, Curlew, Jackdaw.</i> The legend of how the chough got its red legs and beak. The legend of King Arthur and the chough. The legend of the robin’s red breast. Just So stories by Rudyard Kipling. 	<p>ACTIVITY RESOURCE</p> <p>Activity 1 Page 15</p> <p>Children listen to the legend then re-tell it in groups, acting it out.</p> <p>ACTIVITY RESOURCE</p> <p>Activity 2 Page 16</p>

English Literature and Language

NATIONAL CURRICULUM POINTS	CHOUGH AND CONSERVATION LINKS	SUGGESTED ACTIVITIES
Key Stage 2		
<ul style="list-style-type: none"> Using dictionaries to look up new words. Preparing poems and play scripts to read aloud and to perform, showing understanding through intonation, tone, volume, and action. Creating characters, settings, and plot in own narrative writing. Using organisational features in non-narrative writing (e.g. subheadings). Listening to and discussing a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks. 	<ul style="list-style-type: none"> Conservation themed words such as “reintroduction”. Number of possibilities for nature/conservation themed stories and news articles. Learning from non-fiction/ textbooks about the chough and other native species. Learning about how different British species are portrayed in fiction books and poetry. 	<p>Nature plays - perhaps detailing the decline and reintroduction of a species.</p> <p>Write a poem or play script focussing on an aspect of nature.</p>
<ul style="list-style-type: none"> Planning, writing, and noting initial ideas. Draft and write. Evaluate and edit, assessing effectiveness of their own and others’ writing. Retrieve, record and present information from non-fiction. 	<ul style="list-style-type: none"> Recording ideas could be combined with site visits to Dover Castle, or the White Cliffs of Dover. Nature-based pieces of writing can be combined with required grammatical features. 	<p>Conservation pieces of writing can be found and evaluated by class.</p>

Science

There are several reasons why nature and conservation have a place in the science classroom. Science is used to monitor and report on all aspects of the natural world, informing us of the state of populations, changes, and trends. Habitats, animals, and life cycles are key themes throughout the curriculum, however greater detail can be added or removed depending on the age group of the class. Learning about habitats outside of the classroom is a brilliant way to get closer to nature and to embed knowledge.

The table below highlights some of the key areas of overlap.

NATIONAL CURRICULUM POINTS	CHOUGH AND CONSERVATION LINKS	SUGGESTED ACTIVITIES
Key Stage 1		
<ul style="list-style-type: none"> Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds, and mammals, including pets). Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. 	<ul style="list-style-type: none"> Structure of birds. Learn the name of a chough, collectively known as a chattering of choughs. Inclusion of terms, 'carnivore', 'herbivore', 'omnivore', 'insectivore' and some examples of species for each. For example, the chough is an insectivore which eats ground invertebrates. 	<p>The Eco Museum live project in Ireland and Wales has various schools activities:</p> <p> https://www.ecomuseumlive.eu/_files/ugd/d109a3_d3a92e1a48fb35c2470.pdf</p>
<ul style="list-style-type: none"> Find out about and describe the basic needs of animals, including humans, for survival. Notice that animals, including humans, have offspring which grow into adults. Identify that most living things live in habitats to which they are suited (adapted) and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. 	<ul style="list-style-type: none"> Considering the needs of various species and their native counterparts. Life cycles of birds: egg, chick, adult. Link to why Dover is being chosen to reintroduce chough: cliffs, chalk grassland. 	<p>The Habitat Game and design your ideal habitat.</p> <div data-bbox="1171 1671 1442 1704" style="background-color: #e67e22; color: white; padding: 2px; text-align: center;">ACTIVITY RESOURCE</div> <div data-bbox="1190 1720 1334 1789" style="background-color: #f1c40f; padding: 5px; text-align: center;">Activity 8 Page 34</div>

Science

NATIONAL CURRICULUM POINTS	CHOUGH AND CONSERVATION LINKS	SUGGESTED ACTIVITIES
Key Stage 1		
<ul style="list-style-type: none"> Identify and name a variety of plants and animals in their habitats, including microhabitats. Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. 	<ul style="list-style-type: none"> How microhabitats support different creatures such as insects and worms. Chough diet: chough are insectivores which means they eat a variety of ground invertebrates including worms, beetles, dung beetles, and others. 	<p>Minibeasting in school grounds.</p> <div data-bbox="1177 584 1477 719" style="border: 1px solid orange; padding: 5px; background-color: #fff9e6;"> <p>ACTIVITY RESOURCE</p> <p>Activity 9 Page 36</p> </div>
<ul style="list-style-type: none"> Identify that humans and some other animals have skeletons and muscles for support, protection and movement. Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. 	<ul style="list-style-type: none"> Specialised muscles/bones in birds allow flight. For example, bird bones are hollow making them very lightweight, enabling flight. Importance of nutrition for animals. Example food chains, including chough. 	

NATIONAL CURRICULUM POINTS	CHOUGH AND CONSERVATION LINKS	SUGGESTED ACTIVITIES
Key Stage 2		
<ul style="list-style-type: none"> • Recognise that environments can change and that this can sometimes pose dangers to living things. • Food chains. • Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. • Identify how sounds are made, associating some of them with something vibrating. • Find patterns between the pitch of a sound and features of the object that produced it. 	<ul style="list-style-type: none"> • Recognising human impacts as both positive and negative. Link to chalk grassland restoration at Dover, ready for chough reintroduction. • Identifying producers, prey, and predators. Choughs are predators of insects. • All living things belong to taxonomic groups based on their similarities and differences. • Learn about the chough call and how it is different to other birds. Find out why birds call or sing. 	<p>The Habitat Game and design your ideal habitat.</p> <p>ACTIVITY RESOURCE</p> <p>Activity 8 Page 34</p> <p>How many species can you spot in your school grounds? Birds, mammals, insects etc.</p>
<ul style="list-style-type: none"> • Differences in life cycles (i.e. mammal, bird, insect etc.). 	<ul style="list-style-type: none"> • Life cycles of species from the local environment. • Link to chalk grassland species. • Forces that allow birds to fly. The forces that enable aeroplanes and birds to fly are different; birds have dynamic wings whereas aeroplane wings are static. 	<p>Make things that fly under the power of a throw/ the wind and stay up in the air, using aeroplanes, birds and seeds as templates e.g. chough paper aeroplanes.</p> <p>ACTIVITY RESOURCE</p> <p>Activity 6 Page 27</p>
<ul style="list-style-type: none"> • Identify the effects of air resistance, water resistance and friction, that act between moving surfaces. • Describe ways in which nutrients and water are transported within animals. • Evolution and adaptations to suit environment. 	<ul style="list-style-type: none"> • Build on knowledge from year 4. Use and create identification keys (e.g. for invertebrates). • Harmful substances such as pesticides etc. and their impacts on wildlife. • Variation of offspring. Adaptations to suit environment (e.g. chough wing shape, beak shape etc.) Different bird beak shapes for different diets. 	<p>ACTIVITY RESOURCE</p> <p>Activity 7 Page 30</p>

Art

Nature provides a fantastic source of inspiration for artwork. This can also be tied to other subjects. For example, stories written about a certain species could form the subject for art pieces. This can also be combined with site visits to relevant habitat areas.

The following table identifies several key points from the National Curriculum and provides suggestions of possible links to nature and conservation.

NATIONAL CURRICULUM OBJECTIVES	CHOUGH AND CONSERVATION LINKS	SUGGESTED ACTIVITIES
Key Stage 1		
<ul style="list-style-type: none"> Use a range of materials creatively to design and make products. 	<ul style="list-style-type: none"> Create art using materials from nature, such as leaf/bark rubbing, twig/mud animal sculptures or leaf pictures. Imagine what the natural habitat for a species looks like, or imagine a new species that could live in a UK habitat. 	<p>Chough pompoms, aeroplane and glove puppets.</p> <p>ACTIVITY RESOURCE</p> <p>Activities 5 and 6 Page 24 and 27</p> <p>Draw, paint or make a creature of your imagination that might live in the UK.</p>
<ul style="list-style-type: none"> Learn about the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and make links to their own work. 	<ul style="list-style-type: none"> Use a range of materials to portray plant and animal species. 	
<ul style="list-style-type: none"> Learn about the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and make links to their own work. 	<ul style="list-style-type: none"> Artists who focused on nature e.g. Monet. 	<p>When discussing artists who have been influenced by nature, the John Muir website has links to many useful artist pages:</p> <p> https://johnmuirlaws.com/inspiring-nature-artists/</p>
Key Stage 2		
<ul style="list-style-type: none"> Create sketch books to record observations and use them to review and revisit ideas. 	<ul style="list-style-type: none"> Use sketch books to record observations when you visit choughs at Dover Castle, or chough habitats at the white cliffs of Dover. 	<p>Sketch chough after aviary visit.</p>
<ul style="list-style-type: none"> Improve their mastery of art and design techniques including drawing, painting, and sculpture with a range of materials. 	<ul style="list-style-type: none"> Create art using materials from nature, such as leaf/bark rubbing, twig/mud animal sculptures or leaf pictures. 	<p>Chough pompoms, aeroplane and glove puppets.</p> <p>ACTIVITY RESOURCE</p> <p>Activities 5 and 6 Page 24 and 27</p>
<ul style="list-style-type: none"> Learn about great artists, architects, and designers in history. 	<ul style="list-style-type: none"> Artists who focused on nature e.g. Monet. 	

Geography

Geography and nature are inherently linked. It is almost impossible to cover all areas covered by the National Curriculum without involving nature in some way. To this end, only minor adjustments are required to include conservation and reintroductions in lessons.

NATIONAL CURRICULUM OBJECTIVES	CHOUGH AND CONSERVATION LINKS	SUGGESTED ACTIVITIES
Key Stage 1		
<ul style="list-style-type: none"> Name, locate and identify characteristics of the four countries and capital cities of the UK. 	<ul style="list-style-type: none"> Discussion of the locations of populations of significant species. 	
<ul style="list-style-type: none"> Identify seasonal and daily weather patterns in the UK. 	<ul style="list-style-type: none"> Discuss the preferred habitats and weather of specific species and how this shapes hibernation and migration. For example, some animals sleep to avoid cold weather in the winter (hibernation) and other animals travel (migrate) to warmer climates. 	
<ul style="list-style-type: none"> Use basic geographical vocabulary. 	<ul style="list-style-type: none"> Could be included in discussion of habitats and disturbances to species. 	
<ul style="list-style-type: none"> Understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom, and of a small area in a contrasting non-European country. 	<ul style="list-style-type: none"> To discuss the similarities and differences in environmental conditions, you could compare chough habitat around Kent, such as chalk grassland, to other locations. 	
<ul style="list-style-type: none"> Use of aerial photos and plan perspectives to recognise landmarks and basic human and physical features. 	<ul style="list-style-type: none"> Explain how aerial photos, such as Google Earth, can help to plan and manage habitats. 	
<ul style="list-style-type: none"> Use of simple fieldwork and observational skills to study the geography of their school and grounds and features of surrounding environment. 	<p>Observe the current potential for wildlife in the school grounds and discuss the potential to improve them for wildlife. Consider joining the Wilder Kent Awards:</p> <p> kentwildlifetrust.org.uk/get-involved/wilder-kent-awards</p>	<p>There are lots of activities suggested in the Wilder Kent awards information and here:</p> <p> kentwildlifetrust.org.uk/actions</p>

Geography

NATIONAL CURRICULUM OBJECTIVES	CHOUGH AND CONSERVATION LINKS	SUGGESTED ACTIVITIES
Key Stage 2		
<ul style="list-style-type: none"> Locate the world's countries, using maps to focus on Europe and North and South America. 		
<ul style="list-style-type: none"> Name and locate counties and cities of the UK. 	<ul style="list-style-type: none"> Discover different populations of species within the UK and the impact of changing land-use over time. You can also discuss sedentary vs migratory bird species. e.g. choughs stay in one place but other birds migrate. 	
<ul style="list-style-type: none"> Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America. 	<ul style="list-style-type: none"> What are some similar or different environmental pressures in different regions? 	
<ul style="list-style-type: none"> Describe and understand key geographical aspects. 	<ul style="list-style-type: none"> Discussion of preferred habitats of species and their relevant ecosystems e.g. chalk grassland and cliffside habitat for chough. 	<div data-bbox="1173 929 1444 963" style="background-color: #e67e22; color: white; padding: 2px;">ACTIVITY RESOURCE</div> <div data-bbox="1189 974 1340 1052" style="background-color: #f1c40f; padding: 5px; margin-top: 5px;">Activity 8 Page 34</div> <p data-bbox="1173 1075 1476 1590">There are many ways the chough can be incorporated into activities and lessons around habitats in the classroom and outside. It's important in these activities to think about what space, food, and shelter choughs need in their habitat. We would love to hear your suggestions for activities about the habitat of choughs! Please let us know:</p> <div data-bbox="1173 1601 1492 1668" style="display: flex; align-items: center; margin-top: 10px;">  <a data-bbox="1236 1601 1492 1668" href="mailto:chough@wilderkent.org.uk" style="color: #0070c0; text-decoration: underline;">chough@wilderkent.org.uk </div>
<ul style="list-style-type: none"> Use fieldwork to observe, measure, record and present the human and physical features in the local area. 	<ul style="list-style-type: none"> Maps of habitat areas, for example the different between the chalk grassland around Dover and the urban areas. 	

History

Whilst there are several areas where nature and history overlap within the National Curriculum, some consideration needs to be made to the more specific historical periods that are covered. Links to conservation can be made with subtle additions and in most cases can focus on comparisons to the modern day.

NATIONAL CURRICULUM OBJECTIVES	CHOUGH AND CONSERVATION LINKS	SUGGESTED ACTIVITIES
Key Stage 1		
<ul style="list-style-type: none"> Changes within living memory. 	<ul style="list-style-type: none"> This allows for an introduction to decline in species and habitat areas. For example, the decline in songbirds or insects is something that many adults will have experienced in their lifetime. You can also discuss the reasons for species declines e.g. pesticides, habitat loss. 	
<ul style="list-style-type: none"> Events beyond living memory that are significant nationally or globally. 	<ul style="list-style-type: none"> This allows for links to extinct species to be made. For example, the disappearance of species such as chough, a coastal bird that we hope to reintroduce along the Kentish coastline. 	
<ul style="list-style-type: none"> Lives of significant individuals in the past who have contributed to national and international achievements. 	<ul style="list-style-type: none"> This could entail studies around significant conservationists such as Charles Darwin and a comparison to modern day figures such as David Attenborough. What challenges did they face and how is that different to the work of conservationists today? You could also discuss William Shakespeare and his references to chough. 	<p>ACTIVITY RESOURCE</p> <p>Activities 3 and 4 Page 17 and 21</p>
<ul style="list-style-type: none"> Significant historical events, people and places in their own locality. 	<ul style="list-style-type: none"> Thomas Becket's link to Canterbury cathedral and the story of how the chough got its red legs and beak by stepping in Becket's blood. Canterbury's coat of arms has chough on it. 	<p>ACTIVITY RESOURCE</p> <p>Activities 2 and 4 Page 16 and 21</p>
<ul style="list-style-type: none"> A local history study. 	<ul style="list-style-type: none"> Discussion of Thomas Becket's link to Canterbury Cathedral and the story of how the chough got its red legs and beak by stepping in Becket's blood. Students can explore the links between royalty - Henry II and Henry VIII - and chough and discover that Canterbury's coat of arms still has chough on it. 	
<ul style="list-style-type: none"> Note connections, contrasts and trends over time and develop appropriate use of historical terms. 	<ul style="list-style-type: none"> Perhaps consider how earlier civilisations used animals for grazing and how that is different to farming today. Alternatively, there could be a focus on the animals that settlers might have encountered in the wild that may not be around today. Exploration of conservation terminology such as 'extinction', and discussions around historic populations, decline in species and disappearing habitats. Discuss Shakespeare and how people used to write with quills and ink. Discover the original use of pen-knives. 	<p>ACTIVITY RESOURCE</p> <p>Activity 4 Page 21</p>

Onomatopoeia in nature

Birds named after their calls



Aim:

This is an opportunity to introduce children to onomatopoeia, words that sound like what they mean, by discovering birds that are named after their calls. The most familiar to everyone will be the cuckoo whose call is the double syllable "Cuck-coo". This could be demonstrated with sound recordings and images of the birds on the white board and could also serve as a nature lesson.

Background Information:

The chough is named after its call: a high "Chy-uff." This sort of sound carries better in the environment in which choughs live – windy sea cliffs. Think of the sounds that gulls make.

Activity

Below is a short list of British birds that are named after the sounds they make. Some of them are regional/colloquial names and so do not necessarily appear in the bird identification books, e.g. Peewit and Yaffle.

Chough
Chiffchaff
Cuckoo
Curlew

Churr (=Whitethroat)
Chwiw (=Wigeon)
Jackdaw (the 'Jack' part is the call)

Peewit (= Lapwing)
Yaffle (= the laughing cry of the Green Woodpecker)
Hoopoe

Write a poem using onomatopoeia

Chough is not usually in the spelling list but makes a great introduction to many other words and their sounds.

Chough uff
Rough uff
Tough uff
Trough off
Cough off

Through oo
Though oh
Dough oh
Thought or
Nought or

Broughtor
Fought or
Ought or
Thorough uh
Borough uh

Plough ow
Bough ow

As well as adding it into the spelling list, students could write a poem using as many of the ough words above as they can. Here is an example:

*"Chough, in the rough and tumble with wind and cliff,
sought to tough it through from harm
as though thought alone ought to be enough.
Alas, it bought the farm*."*

*The American slang term "Bought the farm" means "to crash" or "to be killed in action," as the desire of many wartime pilots was to stop flying, return home, buy a farm, and live peaceably ever after. (Link to KS2 History)

Other examples of onomatopoeia:

thud; crunch; crash; snap; crackle; pop; bang; buzz; woof; moo; hiccup; burp.

Children can then find their own.

Telling legends



Aim:

The children could learn and retell a legend about how an animal came to be, perhaps performing it with actions or in groups. Or, they could make up their own stories of how their favourite animals have come to be the shapes, sizes and colours that they are.

Background Information:

Definition of a legend: an old story passed down from long ago that people may believe to be true but cannot be proven.

Activity

Examples

a) The legend of why the Chough's beak and legs are red.

When Archbishop Thomas Becket was killed by soldiers of Henry II, following disagreements about the king's power in the church. Legend has it that a crow flew down to where he lay and, whilst trying to aid the stricken priest, made its beak, legs and feet red with his blood. Thus, it was transformed into a red-billed chough.

 You can watch a lego animation of this legend here: [youtube.com/watch?v=qCKwN8JLvlI](https://www.youtube.com/watch?v=qCKwN8JLvlI)

Pilgrims began to arrive in Canterbury to pay respect to Thomas Becket and King Henry II received many high-status visitors. This led to heavy investment in Dover Castle to make it fit for a king and important travellers, creating the impressive castle we see today. Sometime after Thomas' death, he was attributed a coat of arms featuring three choughs, first appearing 100 years later in Canterbury Cathedral. Then in the 14th century a coat of arms with three choughs and a lion was adopted by the City of Canterbury.

b) The legend of King Arthur

Legend says that when King Arthur was 'killed' in the Battle of Camlann, he did not die, but transformed into a chough - the bird's red beak and legs serving as a reminder of the bloody act. Consequently, bad luck is said to follow anyone who kills a chough. This tale is attached to the location of Tintagel on the Atlantic coast of North Cornwall, where choughs remain to this day. Both choughs and King Arthur are icons of the county.

c) The legend of Robin Redbreast

c.i) Another legend says that the robin was a plain bird without colour. One day, long ago, it witnessed Jesus' painful journey carrying the cross to Calvary. Seeing his distress, the robin flew down to help. Whilst plucking a thorn from Christ's crown of thorns, a drop of blood splashed onto the robin's chest and stained it red. It has had a red breast since that day.

c.ii) In another traditional story, a father and son were working in the forest in the winter. At night, while they were sleeping, a hungry wolf began sneaking up on them out of the forest. The fire was dying so the wolf was not afraid. The robin, seeing the danger, flew down and began to fan the embers with its wings. As the robin fanned harder to make the fire burn again it had to move closer to the flames, which rose higher and higher, scaring the wolf away but burning the robin's breast until it was all red. The father and son were saved, and from that day all robins gained a red breast.

Teachers notes:

Teachers may be aware that robins in America and Australia are different to those in Europe and have different stories

d) Take a look at the below links to other legends and to other origin stories both traditional and literary:

Just So Stories by Rudyard Kipling – *How the Whale Got His Throat*, *How the Camel Got His Hump*, *How the Rhinoceros Got His Skin*, *How the Leopard Got His Spots* etc.

Design a coat of arms



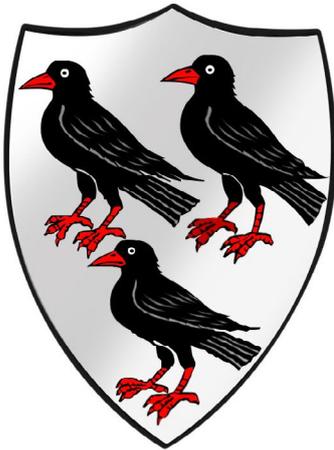
Aim:

This is an opportunity to discuss heraldry and coats of arms. The children could make their own coat of arms, either by drawing the shapes and animals or by cutting and sticking photocopied elements. They could choose animals (including birds and fish) that mean something to them personally for their family crest.

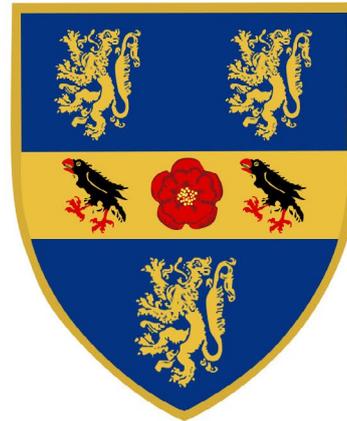
Background Information:

The choughs appear on Becket's coat of arms. It was adopted by Canterbury City who added the Royal Lion of England. After after Thomas became a saint, many with the Christian name Thomas employed the chough on their coat of arms in reference to Becket. Three choughs also sometimes appear on the coat of arms of families with the surname Thomas.

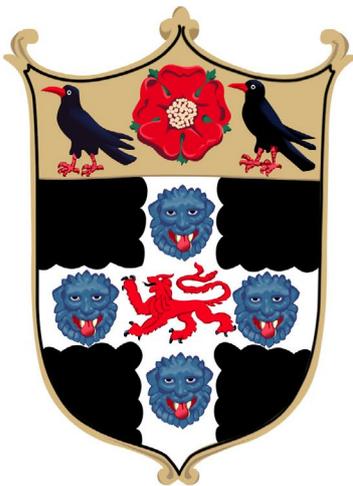
Examples



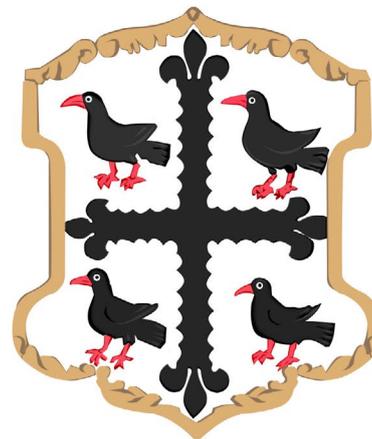
Thomas Becket



Thomas Cromwell



Cardinal Thomas Wolsey



Edwin of Tegeingl
Adopted as Flintshire arms

Design a coat of arms



Activity

Instructions:

1. Divide your shield into halves, quarters or diagonals and colour it in.
2. Choose an animal for your shield. Each animal represents different qualities. Choose one that says something about you. Are you as brave as a lion, as strong as an ox, as hard-working as a bee, for example? Note: Choughs also appear on the coat of arms of Cornwall (where this species is associated with King Arthur). Chough is also the national bird of the island of La Palma, in the Canary Islands.
3. You can use more than one kind of animal or the same kind of animal more than once. You can either put your name in the space or a phrase that represents who you are, or a motto you like to live by.
4. Add any other symbols that mean something to you or your family. E.g. Lancashire and Yorkshire roses (War of the Roses - series of English civil wars fought between the House of Lancaster and the House of York in order to gain control of the throne of England).

Teachers notes:

The story of Thomas Becket's martyrdom and elevation to sainthood can also be linked to life in the Middle Ages and the importance of the church. Or you could reference to the role of the Archbishop of Canterbury. Otherwise, Thomas Becket is part of the History curriculum for KS3.

The meaning of the word 'Becket' is 'prominent nose' and as it suggests, was given to a person who had a prominent nose. It came from the Olde English word 'beke', referring to the beak of a bird. Gilbert, Thomas's father, had a large, hooked nose and Becket was his nickname. Thomas was later called Thomas a' Becket, meaning 'son of Becket'. A chough was called a becket by some people.

There is the potential for a discussion about names in the Middle Ages referring to people's livelihoods, e.g. *John, the Smith. Stephen, the Merchant.*

ACTIVITY 3

Design a coat of arms



Colours

A list of colours and the qualities they represent in heraldry:

**Gold or yellow**

Generosity and good thoughts

**Silver or white**

Peace and sincerity

**Red**

Warrior

**Blue**

Truth and loyalty

**Green**

Hope, joy, and loyalty in love

**Black**

Constancy or grief

**Black**

Royal majesty and justice

**Orange**

Ambition

**Maroon**

Patient in battle, and yet victorious

Animals

A list of some examples of animals and the qualities they represent in heraldry:

Badger

Bravery, perseverance and protection

Bear

Strength, cunning, fierce when protecting one's family

Beaver

Hard work and perseverance

Bee

Efficient hard working

Boar

Bravery

Cat (including Wildcat or Lynx):

Freedom, watchfulness, and courage

Chough

Strategist in battle and being watchful for friends

Crane

Good parents/loving family

Deer

Peace and harmony

Fox

One who uses cleverness and cunning to look after themselves

Otter

One who lives life to the full

Owl

One who is watchful and a quick thinker

Raven

At one with the universe and God

Serpent/Snake/Lizard

Wisdom

Squirrel

Lover of the woods

Wolf

One who gains reward from perseverance in long sieges and or from hard work

Lion

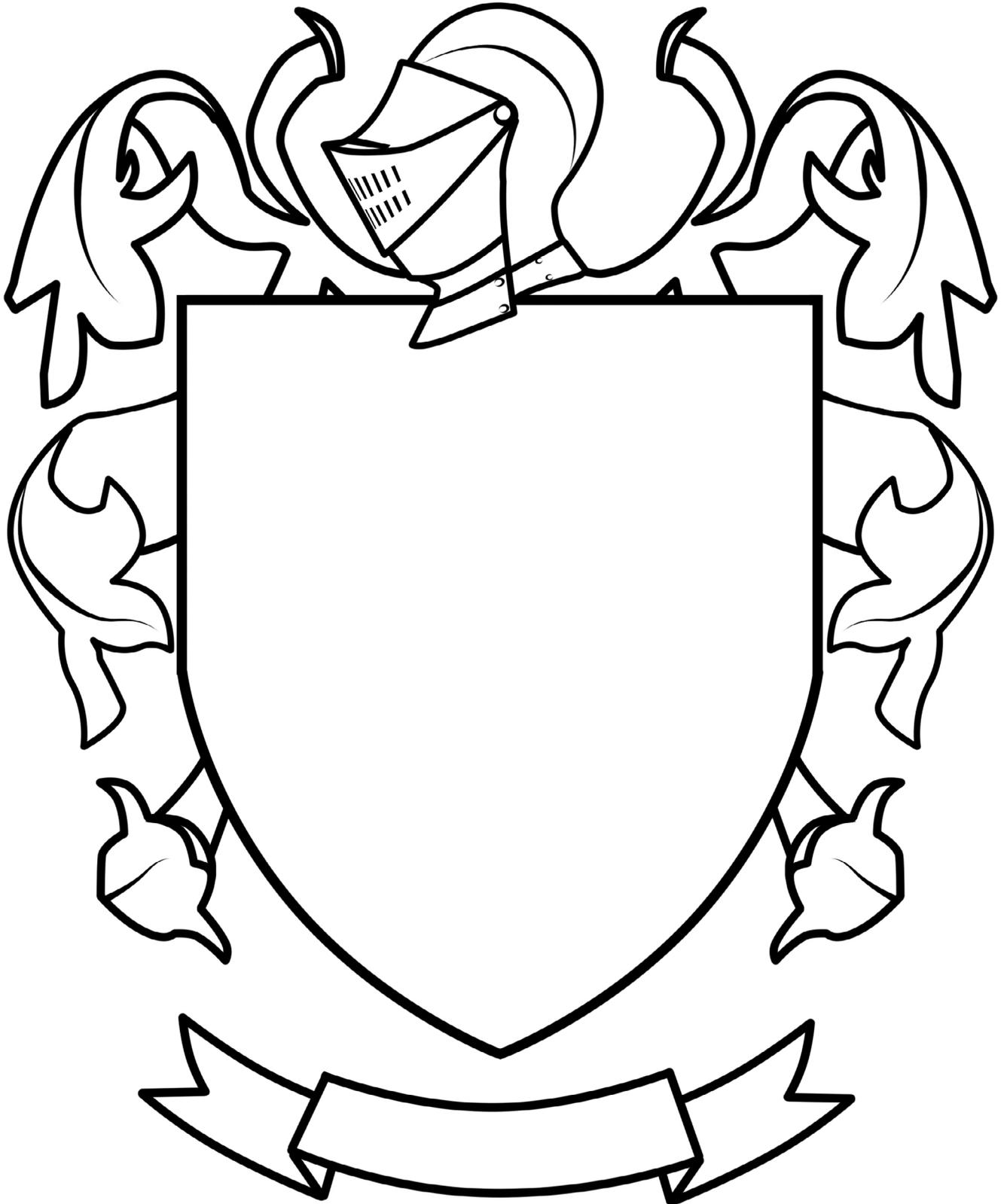
Bravery, strength, ferocity, and valour

Dog:

Courage, alertness, and loyalty

ACTIVITY 3

Design a coat of arms



ACTIVITY 4

Making ink and a quill



Aim:

This is an opportunity to discuss Shakespeare, literature and the Middle Ages.

Background Information:

Choughs and the White Cliffs of Dover are mentioned in William Shakespeare's famous play, King Lear. This is an opportunity to introduce William Shakespeare to the children and tell his story. It could also be an opportunity to tell a version of the story of King Lear. Shakespeare would have written his plays by hand with a quill pen.

Activity

Ink ingredients

- Jam jar
- Mortar and pestle (optional, but used historically)
- Water
- 50g Oak galls (or other gall types, dried chopped acorns, or oak bark pieces)
- Rusty iron nails or (iron sulphate (copperas), old screws, washers)
- 1 or 2 teaspoons Vinegar
- Tablespoon Honey

Oak apples, knopper and marble galls can be found on oak trees or saplings in the winter or they can be bought online.



Quill pen ingredients

- A large bird feather (e.g. gull, crow, chicken, pheasant).
- A craft knife or scissors



ACTIVITY 4

Making ink and a quill



Directions for making the ink:

2. Crush your dried oak galls in a mortar and pestle and add to the water. It is the tannins that are contained in these items that makes the ink black.

1. Half fill a jam-jar with water.

3. Add some rusty iron

4. Add vinegar to the water to help dissolve the iron.

5. Add a generous tablespoon of honey and thoroughly dissolve it. Honey acts as a good, natural thickener so the ink isn't too runny. The ink should not feel as thick as honey.

5. After a few days the liquid will become ink

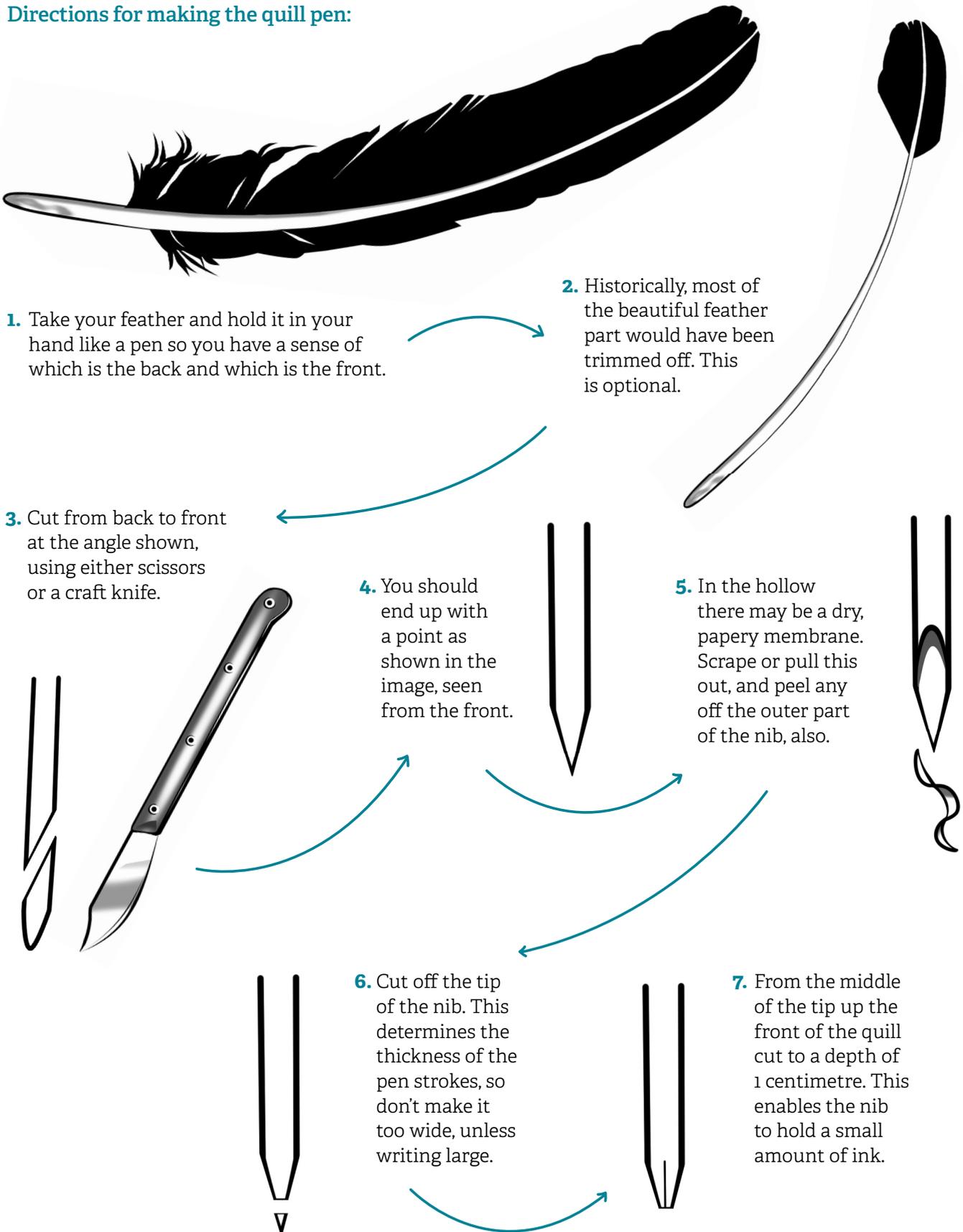


ACTIVITY 4

Making ink and a quill



Directions for making the quill pen:



ACTIVITY 5

Making a chough glove puppet



Aim:

This is an opportunity to discuss the feeding and diet requirements of choughs and other birds as well as an opportunity for story telling with the chough puppet.

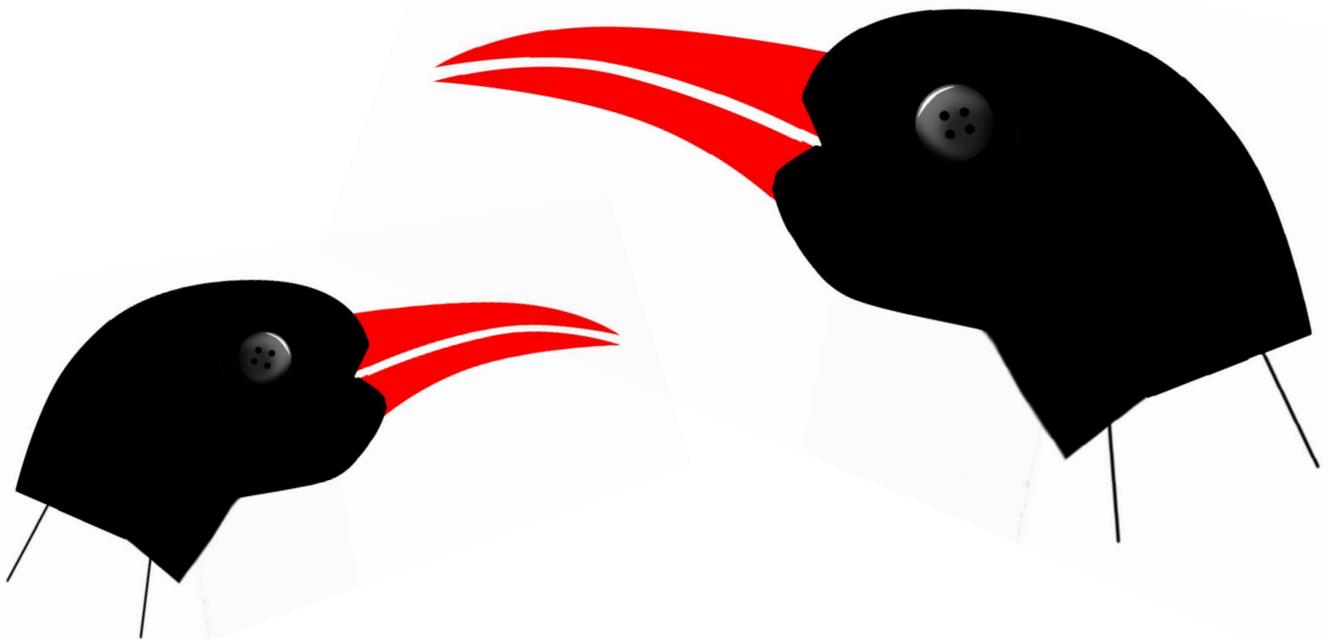
Background Information:

The red bill of a chough has a particular curved shape that is more suitable for finding the kind of food that choughs like. The bill is curved to slide into the soil with forcep-like tips for capturing and holding wriggling invertebrates. Young choughs recognise the red bills as a source of food, so when we hand-rear chicks in captivity we use red forceps (tweezers) to feed them.

Activity

You will need per child:

- Red card
- One black sock
- A pair of black or brown buttons
- Scissors
- PVA glue

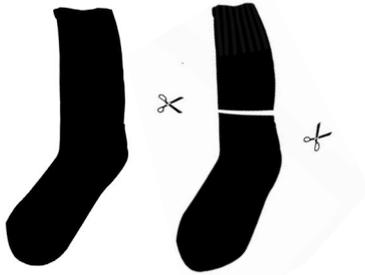


ACTIVITY 5

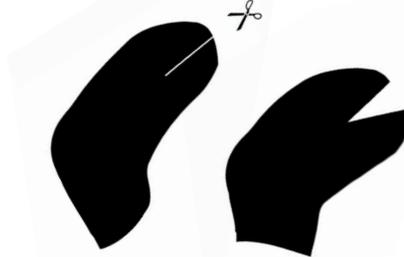
Making a chough glove puppet



Directions for a chough glove puppet:



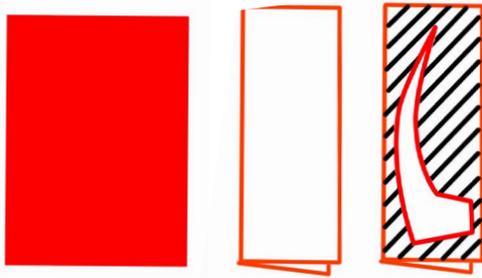
1. Cut the sock in two just above the heel. You can make two chough heads from one sock.



2. Cut a small opening across the toe. It should open enough to fit a beak in, about the same diameter as your finger.



3. Use the elasticated end of the other sock piece as another head.



4. Next, use an A4 sheet of red coloured card. This will make two sets of upper and lower beaks.

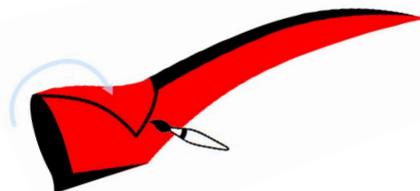


5. Cut out the shape by cutting through both parts of the folded card at the same time so you will end up with two matching halves of a beak.

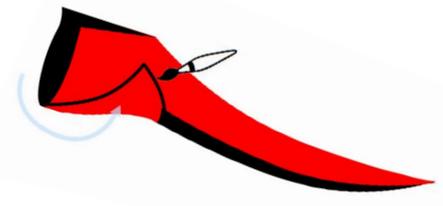
6. Do the same with the lower beak, which is a bit thinner. The tab on this one points upwards.



7. Put a line of glue along the top edge of the upper beak all the way to the tip and lay the other piece onto it. Don't put glue all the way down so that the two halves can open up slightly. Let it dry.



8. Do the same with the lower beak, except this time put a thin line of glue along the bottom edge. DO NOT put glue on the tabs, as you want this part to stay open.



9. When the glue has dried, roll the tabs from the upper beak around your finger and glue one on top of the other.



Cut



Direction of fold



Insert



Dab of glue



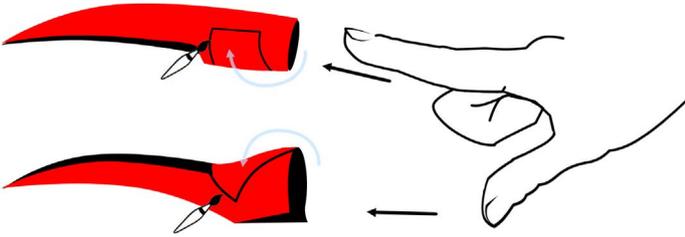
Glue here

ACTIVITY 5

Making a chough glove puppet



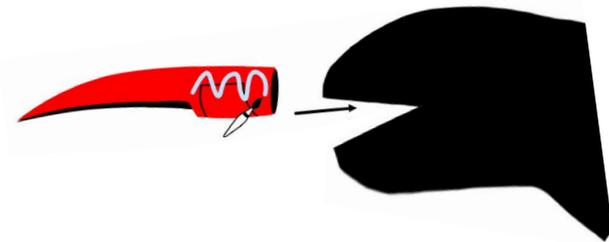
Directions for making glove puppet:



- 10.** Roll the tabs on the lower beak around your thumb and glue one tab on top of the other. You will use your forefinger and thumb to operate the chough's beak.



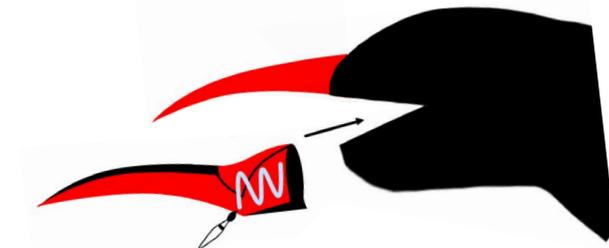
- 11.** Put glue on the top and sides of the upper beak at the tab end only.



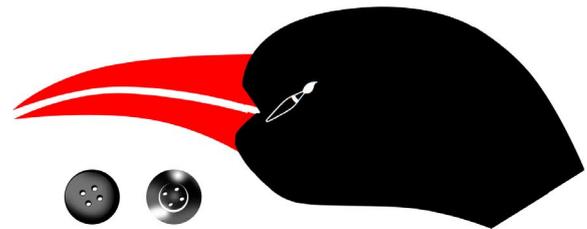
- 12.** Insert the upper beak into the hole in the sock toe and press the sock onto the glue. Keep it there until the glue dries enough to let go.



- 13.** Put glue on the sides of the tab end of the lower beak.

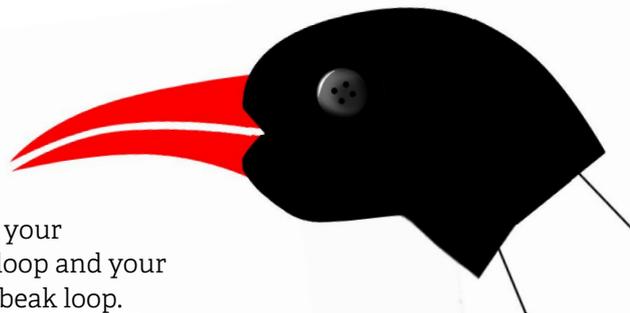


- 14.** Insert it through the mouth opening and press the sock onto the glue to stick it in place. Make sure you match it with the upper beak so that both tips meet at the same place.



- 15.** All you need now are the eyes. If your buttons have a rounded side and a flat side with a hollow, put plenty of glue on the flat side and press them on one at a time, with the sock laying down flat.

- 16.** When everything is dry, insert your hand into the sock placing your thumb through the lower beak loop and your index finger through the upper beak loop.



ACTIVITY 6

Chough paper aeroplane



Aim:

This is an opportunity to make things that fly under the power of a throw or the wind.

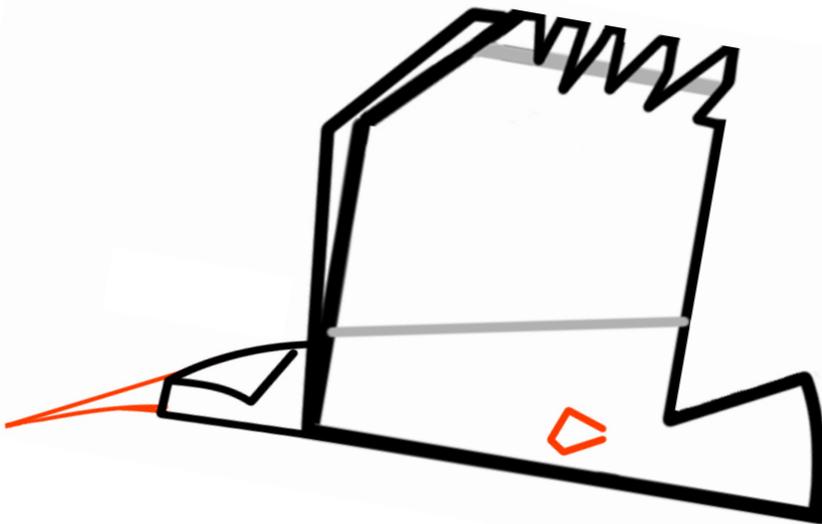
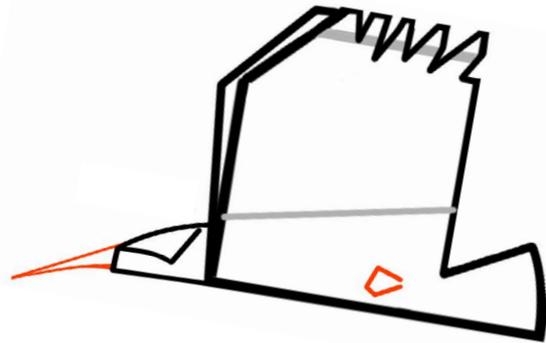
Background Information:

To achieve flight, lift must overcome weight, and thrust (forward motion) must overcome drag (friction, resistance of the air). Even without power, things can stay in the air for a relatively long time.

Activity

You will need:

- Black paper
- Red paper
- Scissors
- PVA glue
- Optional: googly eyes

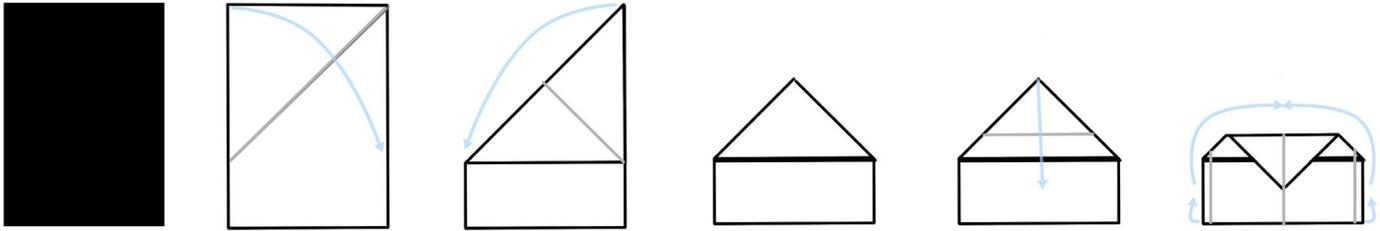


ACTIVITY 6

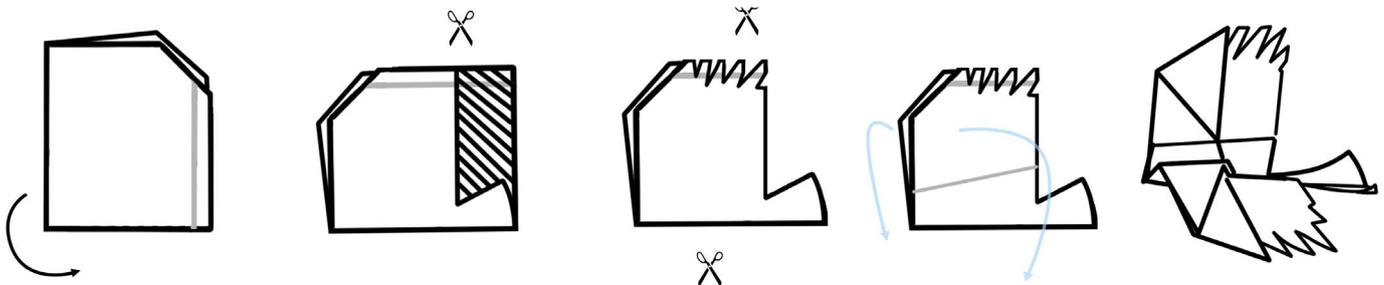
Chough paper aeroplane



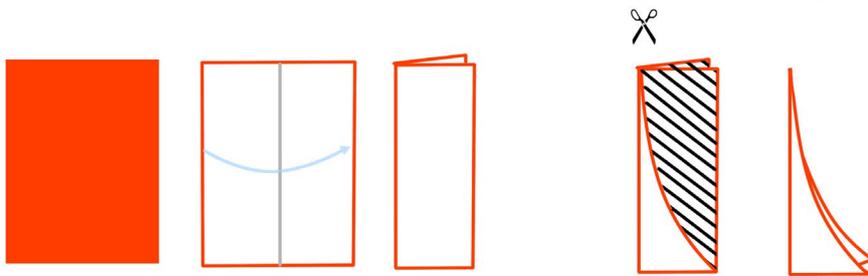
Directions for making a chough paper aeroplane:



1. Use a sheet of black A4 paper. To make the body, fold the paper in the steps shown.

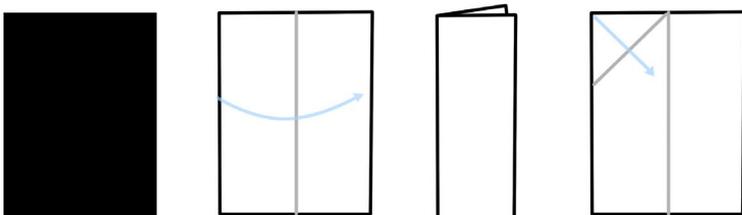


2. To cut out the wing shapes and tail, keep the paper folded in half. This way you will cut both sides at the same time, keeping the shapes symmetrical.



3. For the beak you will need a small rectangle of red card, folded in half.

4. Cut the curve of the beak from the corner opposite the fold crease. Put it to one side until you have made the head.



5. Use a small rectangle of black paper. Fold it in half lengthways and open it out again.

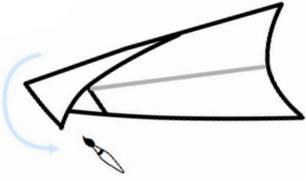


ACTIVITY 6

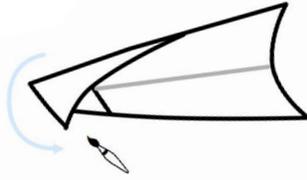
Chough paper aeroplane



Directions for making chough paper aeroplane:



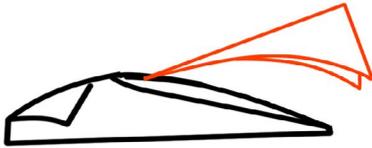
- 6.** On the left, fold the corner down.



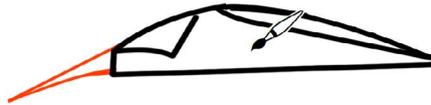
- 7.** As you bring the right side over, roll it a little and glue or tape the top end to the other side.



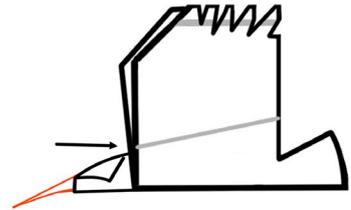
- 8.** With the lowermost crease, trim off the back corner in a curve towards the front (head). This should make a tube.



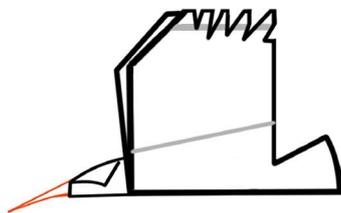
- 9.** Push the beak into the tube until it comes out the front. The fold of the beak should be facing upwards and the cut curve of the beak facing downwards.



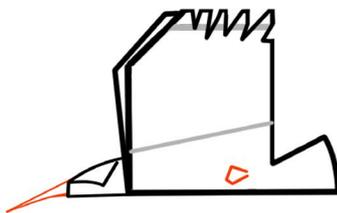
- 10.** Put a dab of glue on both sides towards the back of the shape, and slide it into the body channel until just a head and beak sticks out.



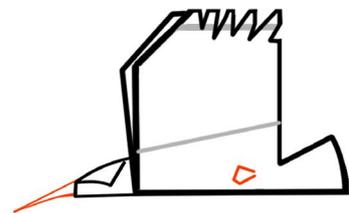
- 11.** Squeeze both halves of the body and wings together and hold it there for a minute until dry.



- 12.** When you open it out and fold the wings back down, your chough will have a 3D head.



- 13.** Cut out two feet from scraps of red card and stick them on underneath the body near the tail.



- 14.** Flatten out the wings, fold up the tips and your chough is ready to fly. If it crash lands the beak shouldn't bend but will push inside the head. Just push it through until the beak sticks out again.



Cut



Direction of fold



Insert



Dab of glue



Glue here



Bird Beaks Workshop

Aim:

This is an opportunity to discover how birds have different adaptations depending on what type of food they eat.

Background Information:

Discover how brilliantly adapted beaks are to their owners' lifestyle and diet. Try out a range of different 'beaks' to pick up different foods to understand evolution and adaptations in practice.

Activity

You will need:

- Assorted kitchen utensils:
 - Barbecue tongs** – simulate big, wide beaks like spoonbills
 - Small tongs** – simulate general feeders like blackbirds
 - Small scissors** – simulate sharp beaks like birds of prey
 - Tweezers** – simulate precise seed-feeding beaks like sparrows
 - Small sieves** – simulate filter feeders like flamingos
 - Combs** – simulate simulate water feeders like ducks
 - Hair clips** – simulate long pointed beaks like choughs
- Lots of extra trays and newspaper to change foods
- 5 plastic bowls for water
- Pots to represent the bird's stomach and to see how much food has been caught
- 6 trays each with a different food in (please consider allergy risks when undertaking this activity)
 - Rabbit or guinea pig food
 - fine seeds such as millet
 - Hay/ straw
- Stretchy rubber snakes and lizards
- Pine cones with just a few millet seeds stuck deep in cracks with jam
- Plastic insects – you could consider mealworms
- Timer/ stop watch

Rules for food gathering experiments:

- Group children into groups of 5 – 6
- Give each child a beak, ensuring that each group has a one of every beak
- Give each group a tray of food
- Give everyone one minute to 'catch' as much food as possible from their groups tray using ONLY their beak. Ask them to put the food in their pot so we can all see who has the best beak
- They are not to use their bare hands, just the tip of the utensil like the tip of a bird's beak!
- Remember, if they take seeds, they have to be able to open them!
- After 1 minute, stop and assess how each beak did with the food type.

ACTIVITY 7

Bird Beaks Workshop



Suggested tools for activity



Explain that birds have different beaks so that they can eat different foods. Will different sized beaks eat the same amounts of food? Do different shapes affect what or how they can eat?





Bird Beaks Workshop

VARIATION 1: General feeding

- Split the class into equal sized groups of around 5 students
- Tip a large scoop of rabbit/guinea pig/ bigger bird seed into each tray
- Give everyone one minute to 'catch' as much food as possible using their chosen beak.

Questions: Who has caught the most food? Who has caught the least? Why were some beaks better at this activity than others? Were different sized or different shaped beaks more/less successful?

Likely outcome: *most beaks will get something!*

VARIATION 2: Specialist seed feeders

- Remove the dry food tray and replace with a piece of newspaper and pinecones with a few milletseeds wedged deep inside with jam
- Give everyone one minute to 'catch' as much food as possible using their beak and put the food in their pots so we can all see who has the best beak
- Remember they are not to use their bare hands, just the tip of the utensil like the tip of a bird's beak!
- After one minute, stop and assess how each beak did with the food type.

Questions: Who has caught the most food? Who has caught the least? Why were some beaks better at this activity than others? Were different sized or different shaped beaks more/less successful?

Likely outcome: *the smaller, more precise beaks will probably do best; bigger beaks will probably get frustrated.*

VARIATION 3: Woodland insect feeders

- Remove the pine cones and replace with trays of toy minibeasts in egg cartons/cardboard tubes/ corrugated cardboard strips stuck down onto the tray base with tape to replicate insects hiding in cracks and crevices
- Students are not allowed to move the cartons/tubes to make it easier but must manoeuvre their beaks to get inside the cracks and crevices to wangle out the minibeasts
- After one minute, stop and assess how each beak did with the food type.

Questions: Who has caught the most food? Who has caught the least? Why were some beaks better at this activity than others? Were different sized or different shaped beaks more/less successful? Are any of the successful general beaks finding it harder to get food?

Likely outcome: *long slender beaks will probably do well.*

VARIATION 4: Snake and lizard feeders

- Remove minibeasts and replace with basking rubber lizards and snakes on the table
- One minute - have a go! (This one is likely to be over quickly)

Questions: Who has caught the most food? Who has caught the least? Why were some beaks better at this activity than others? Did different sized or different shaped beaks more/less successful?

Likely outcome: *big, long beaks will probably do best.*

VARIATION 5: Water feeders

- Remove snakes and lizards and replace with bowls of water
- Be prepared for spillages
- Float a handful of finely chopped straw on the surface
- After one minute stop and assess how each beak did with the food type.

Questions: Who has caught the most food? Who has caught the least? Why were some beaks better at this activity than others? Were different sized or different shaped beaks more/less successful?

Likely outcome: *sieves and combs will probably do well as these designs are found in duck beaks*

ACTIVITY 7

Bird Beaks Workshop



Follow-up activity on the day:

Look at some examples of birds and their beaks in each of the groups you have covered. Look up a few examples of ultra-specialised beak adaptations of particular birds – see lists below.

Bird Lists

Birds are British unless otherwise stated



Specialist Invertebrate Feeders

Chough
Swift
Nightjar



Specialist Seed Feeders

Goldfinch
Greenfinch
Chaffinch



Woodland Insect Feeders

Great and Lesser-spotted Woodpeckers
Green Woodpecker
Treetreeper



General Feeders

Crow
Jackdaw
Blackbird



Water Feeders

Mallard Duck
Shoveler Duck
Spoonbill



Snake and Lizard Feeders

Kestrel
Buzzard
Short-toed Snake Eagle

Ultra-specialists

Crossbill - *for extracting seeds from pine cones*

Hawfinch- *for cracking cherry stones*

Pelican – *fish eater with big pouch to hold lots of fish (several species around the world)*

Scarlet or Blue Macaw – *hooked and ragged nut-cracker beak that can crack Brazil nuts (South America, Brazil)*

Toucan – *long beak perfect for reaching fruit at the tips of branches or into nests, as well as for keeping cool, signalling and displaying and fighting! (South America)*



The Habitat Game

Aim:

What does an animal need from its habitat?
How have different animals adapted to different habitats and how do those habitats support different plants and animals?

Background Information:

Kent Wildlife Trust needed to ensure suitable habitat for choughs to be reintroduced to Kent. There are many kinds of habitats and sometimes human actions can mean habitats become degraded and no longer suitable for the plants and animals that live there, leading to the loss of wildlife. Choughs like to live in areas with short grassland so that they can feed on invertebrates in the soil. However, they are also found in other areas including in arable fields and urban areas.

Activity

What a chough needs in its habitat:

- Choughs are found on **coastal cliffs** where they make their nests in cliffside crevices.
- Some choughs have been found to nest in **old buildings** rather than on the cliff face.
- They are reliant on **grassland with short grass length**, as they feed on **bugs and insects** in the soil.
- The short sward (length of grass) allows the choughs' beak to **probe the soil** for insects.
- The choughs that are being reintroduced to Kent will live and feed on the **chalk grassland** on the White Cliffs of Dover.
- Because choughs need short grassland to feed, they need **grazing animals like sheep, cattle and ponies** to keep the grass short so they can access the soil.
- Keeping cattle outside over the winter (rather than in barns) can be really beneficial, and their dung can provide a home and food for insects and their larvae. These insects can be a really useful food source for birds including Chough, when food is scarce elsewhere.

One way that climate change is predicted to affect the British Isles is getting warmer and drier. During periods of drought, choughs have difficulty in finding enough food as their curved beaks cannot penetrate the hard ground to capture insects.

ACTIVITY 8

The Habitat Game



Activity:

Label this picture using the Chough habitat information overleaf





Minibeasting

Aim:

What habitats can you find minibeasts in? Is there a reason they live in different places? Why are these creatures so important? Choughs eat invertebrates like crane flies, ants, fly larvae, beetles and earthworms. Can you spot any of their prey?

Background Information:

Minibeasting is a great way to investigate some of our smallest and often overlooked creatures.

Activity

You will need per group:

- Minibeast Homes sheets (below)
- Pencils
- Clipboards
- Magnifying glasses/pots

Method:

- Search around your school grounds for minibeasts and fill in the Minibeast Homes sheet.
- You could pick up to 4 different habitats, such as under logs, trees, flowers, grass etc.
- You might like to use magnifying glasses or pots for a closer look.
- Keep a tally of the number of creatures you find in the different locations. Discuss which habitats had the most creatures and why this may be.
- Think about what the minibeasts might eat – can you make a food chain?
- If you like, you could make graphs of your findings.

Create a Creature



Aim:

Draw, paint or make a creature of your imagination that might live in the UK.

Background Information:

Think about all the different creatures that live in the UK. How are each of them adapted to live in the habitat that they do? Do they have fur to keep them warm? Powerful eyes to find their prey? Are they camouflaged to avoid predators? How have they evolved to meet the requirements of their habitat?

Activity

You will need per group:

- Paper
- Pencils and pens
- Paint and paintbrushes
- Clay, playdoh or similar

Method:

- Pick a habitat that your imaginary creature might live in that exists in the UK. Design your creature thinking about how it might look, act, move and what it might eat in that environment. Does it come out in the day or night? How does it avoid being eaten?
- Draw, paint or sculpt your creature.
- Think about how changes in the environment would affect your imaginary creature. What threats do UK animals face at the moment and how well could your creature overcome them? (Loss of habitat, increased number of predators, climate change, disease etc).

