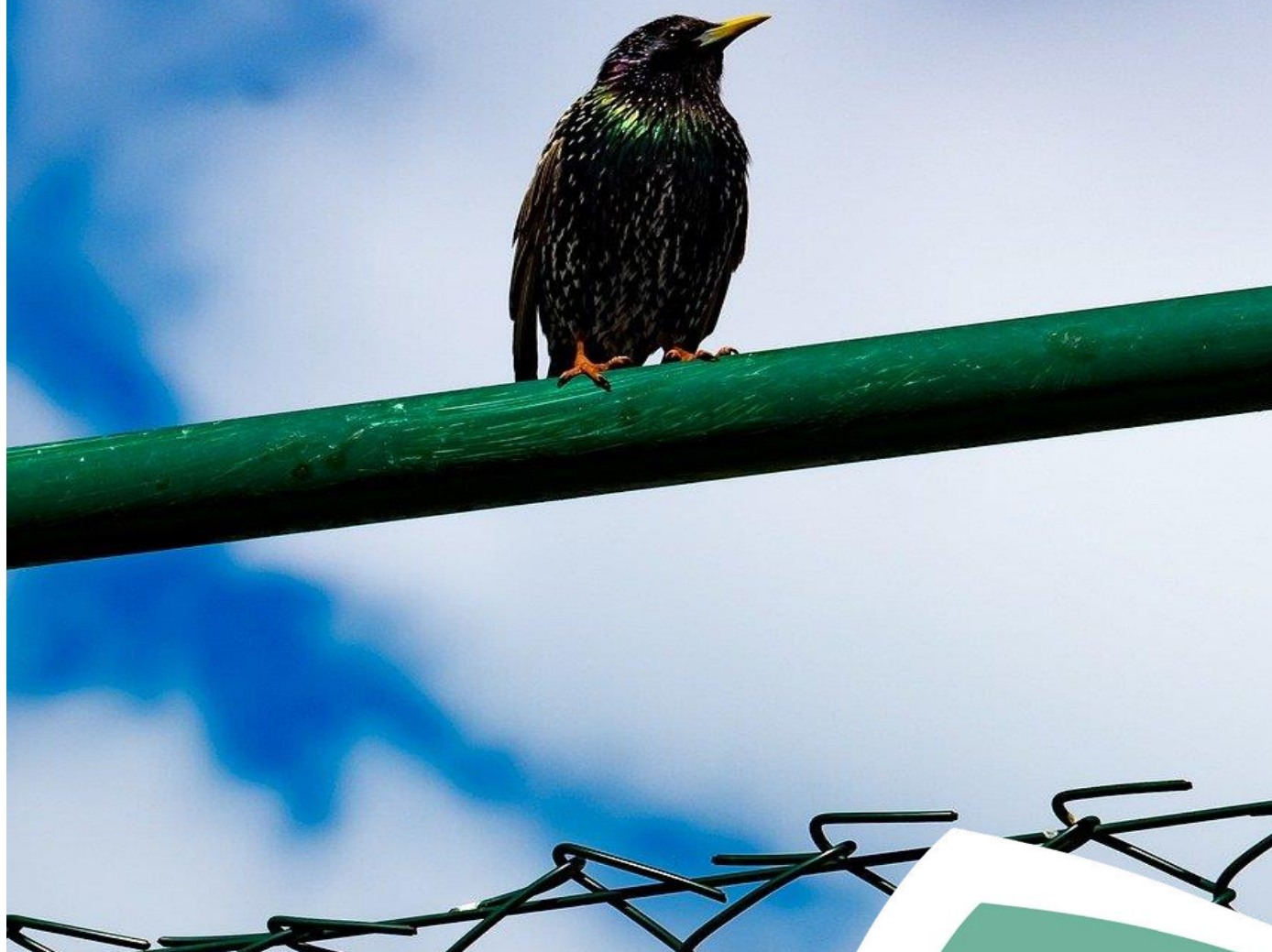


Topic based resource

Biodiversity

Upper Key Stage 2



Background information

Biodiversity is the vast variety of living things on earth. The existence of all life forms including plants, animals, insects, birds, fungi and micro-organisms is interwoven in the ecosystem we call home. All living organisms are part of the biodiversity of our natural and man-made surroundings. Humans cannot survive without a healthy ecosystem, we depend on it for our health, food, water, air to breathe and quality of life.

In the Welsh language 'cynefin' means a place or habitat, but more than that, a sense of place and connection with nature. Recognising the importance of our natural surroundings is vital in understanding how to protect and improve biodiversity.

The World Wildlife Fund's Living Planet Report 2020 shows that human behaviour, from the way we live to the food we eat, is causing the destruction of natural resources and habitats which is having a devastating impact on wildlife populations and also on our own health and wellbeing.



Climate perspective

It is well documented that rapid changes in climate can drastically affect eco systems. Although there have been changes in climate throughout history when it happens at speed there is no opportunity for species to adapt which results in a loss of biodiversity. Each species lost has an effect on other areas of the eco system. If it is a prey species

lost it causes food shortages for predators or if a predator for a particular species is lost then that causes over population of the prey species with no predator to control it. As the climate warms there is evidence of species succeeding in areas they have not previously been found and pushing out the native species.

Nest Building

Upper Key Stage 2

Build your own nest

Why do birds build nests? What do the nests need to do?

Nests need to be strong, protect the eggs/chicks from the weather and keep them safe from predators. The nest needs to be made in a safe place, have a way to get in and out, be soft on the inside and strong on the outside.

How are nests made? What materials do they use and why?

Natural materials, readily available in the local area, easy to carry and suitable for the requirements of the bird.

Materials needed:



- A range of natural materials available in your school grounds or local area e.g. large and small sticks, twigs, dry leaves, cut grass, straw/hay, mud, feathers, moss, wool.
- A toy bird if possible.

Step 1

Think about the location and design of your nest. You could make a large nest for your group to get in together or smaller nests in pairs or groups. Find a safe place to build your nest such as in some bushes, tucked away in a log pile or in the branches of a tree.



Step 2



Gather your materials – think carefully about what you want to use each of the materials for and only take as much as you need so you do not waste energy.

Challenge

Remember birds can only use their beak and claws to build their nests. Try only using one hand as a bird's beak to make your nest. How will you carry your building materials?

Step 3



Think about the size and shape of your nest and start to build. Do not forget that it needs to be strong enough to protect the eggs from predators and the weather. Some birds use wet mud to stick their nests together or weave the materials together using their beaks.

Step 4



What will you line the inside of the nest with to keep the eggs safe? Birds use feathers, moss, animal fur or wool and sometimes even plastic or packaging from litter.

Step 5

Try your bird out in its new nest! Do you think the nest would be a safe place for a real bird to lay its eggs? Think about the reasons why you chose the location and materials and prepare a short advert with your group to sell your nest to a bird! Think Location! Location! Location! and be sure to include all the unique selling points of your nest such as the habitat, local food sources and other things to encourage the new residents. You could make a video of your advert or make a poster in the style of those you might find in an estate agents window.



Follow up discussion

Why is it important to protect and improve biodiversity? How does our behaviour as humans have the potential to impact on biodiversity? Think about different species worldwide we know are in danger and need to be protected, what they need to be protected from and how our behaviour is responsible e.g., high profile stories such as orangutans/deforestation/palm oil.

Discuss and mind map how our behaviour can impact on biodiversity locally, e.g. building on green spaces, AstroTurf or gravel replacing grass in gardens, litter and pollution, using pesticides such as slug pellets, filling in ponds, removing hedges.

Curriculum Links

Area of Learning and Experience - Science and Technology

Statement of what matters:

The world around us is full of living things which depend on each other for survival

Matter and the way it behaves defines our universe and shapes our lives

Area of Learning and Experience - Humanities

Statement of what matters:

Our natural world is diverse and dynamic, influenced by processes and human actions

Next steps and other ideas

- Find out more about how birds can end up using man-made materials in their nests – link to litter and waste minimisation
- Research how different types of birds make their nests – e.g. Swallows - mud, Puffins – in burrows, Weaver Birds – weave loops of grass and leaves, Long-Tailed Tit – moss, lichen and cobwebs, Mistle Thrush – decorated with paper and plastic waste
- Find out what types of birds you have in your school grounds and what sort of nest they would build



- Provide a range of natural materials for nesting birds in your school grounds
- Make bird boxes for your school grounds to encourage nesting birds
- Take part in the RSPB Big School Bird Watch
- Find out which other British animals make nests and what you could do to make them at home in your school grounds
- Look at how you could increase biodiversity in your school grounds – e.g., introduce plants for pollinators, plant a wildflower area, make mini-ponds, create a minibeast area/garden, plant fruit

trees, leave an area of the school field to grow longer, ask your grounds maintenance team to stop using weedkiller or pesticides.

