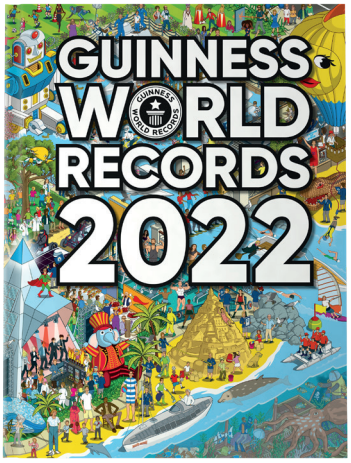
CONSERVATION



LESSON 1 Explore

Lesson objectives

- To define what conservation is and describe why it is important
- To recognise the link between conservation, habitats, and biodiversity
- To create maps of local habitats using a range of materials

Curriculum links

Science:

- Recognise that environments can change and that this can sometimes pose dangers to living things
- Identify scientific evidence that has been used to support or refute ideas or arguments

Art and design:

- Use a range of materials creatively to design and make products
- Use drawing, painting, and sculpture to develop and share their ideas, experiences and imagination

Equipment list:

- Maps, either OS or printed copies or digital versions
- Art resources, such as pens, paper, paint
- Natural resources, such as dried leaves, grass, twigs, stones, bark

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Lesson explanation

Conservation is the term used for the protection of species, their habitats, and their resources. It is important because it prevents the loss of important ecosystems and the species and resources that exist within them. When a species or habitat is very rare, it can become a priority for conservation, as people work to prevent it from vanishing entirely (going extinct). It is important to understand a habitat and the species that live there, in order for it to be protected. In this activity, your students will be exploring the habitats in their local area by creating habitat maps!

Step by step

1. Learn more about conservation by exploring the theme of habitats. Begin by asking students to describe where they live and the things in their home that keep them happy and healthy - this will help them to understand the definition of a habitat. Then, help your students to understand that it's important to protect habitats by describing the term conservation and explaining why it is important.

2. To help your students understand more about the habitats in the local area, take a look at some online or printed maps. Find your school and any other key landmarks that can help your students to explore the map in more detail. Then, begin looking at the area directly around your school, pointing out different features, such as fields, woodland, houses, or roads.

3. Once your students have explored these habitats on the map, you can ask them to begin creating their own version of this map. Mapping out the habitats allows students to think about the structure of school grounds and recognise the importance of these spaces. They could use natural materials to create their habitat map or materials such as Lego, pencils or coloured pens. They should use these materials to map out the habitat, using the digital or printed maps for guidance. They could use items such as grass or wool to mark out fields, dried leaves, or crayons to map out a forest, stones or Lego for houses and roads. Once their maps are complete, take pictures of them - your students could then print pictures of their maps out and add labels, scales, and legends.

4. After your students have created their maps, encourage them to think about the different man-made and natural aspects of their habitats. Talk about what species and resources might live in each, why they are important and what they do to support the area. Think about what the threats might be to this type of habitat – might the trees be cut down to make new resources? Will hedges be cleared for houses? Could a road end up separating a large field? This final activity could be part of a class discussion or could form a writing exercise, in which students describe what they have found and explain how this could change.

Scaffolding and stretching

You could scaffold this lesson by drawing the outline of a habitat onto a piece of paper and asking your students to use natural resources or art materials to fill in the different sections. You could also ask your students to work in groups and support each other with their habitat maps.

You could stretch this lesson by asking your students how different things might impact their habitat – for example, how would their habitat look if new roads or houses were built, or if an area of woodland was cut down? Ask them to think about what effect this might have on the resources and species living in this habitat. They could also compare what this habitat may have looked like 10 years ago, to what it looks like today, to what it may look like in 10 years.

Climate links

Climate change is causing rapid changes to habitats, that will only continue in the future. Understanding what habitats look like and the type of species that live in them will help us to monitor changes over time. It will also help young people to establish a connection to the wildlife they observe and work to protect it.

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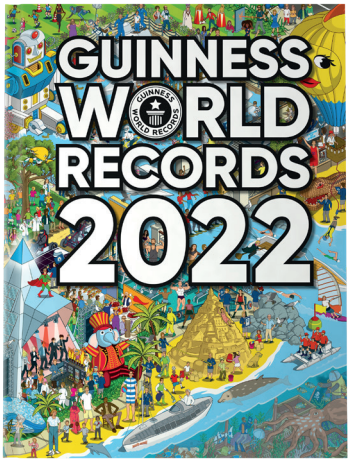

LESSON 2 Challenge

Lesson objectives

- To understand how conservation and biodiversity link together
- To identify the different habitats found in your local area, such as your school grounds or park
- To describe the life found in each of the different habitats, trying to identify species wherever possible

Curriculum links

Science:

- 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
- Recognise that living things can be grouped in a variety of ways
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment
- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals

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Equipment list:

- Bug pots
- Identification guides, such as *Field Studies Council* guides, digital ID guides or apps such as *Seek*

Lesson explanation

Different habitats will support different kinds of animals and plants, and in this lesson your students will explore the idea of conservation, including the importance of preserving habitats and protecting animals and plants. To do this, your students will head outside to explore the variety of habitats in your local area and to find what different animals can be found in different parts of your school grounds.

Step by step

1. Begin by selecting the survey site and looking at a map of it. This could be an OS map or printed copy, or a digital version of the map. Your students could look at the different patches of land nearby and then select their survey sites.

2. Choose three or four sites to explore. Try to choose sites with different features, for example an area of grass, under a tree or bush, on an area of concrete or AstroTurf, or near any flower beds. By searching in different parts of the school grounds, the expectation is to find slightly different combinations of animals in each place, and some may have no animals in them at all.

3. In groups, ask students to spend 15 minutes exploring their designated area. They should write down the different animals and plants that they see, including any insects they might find on plants or in bushes, birds they may see in the trees, or animals that might pass by. Ask your students to search high and low, but be gentle if they choose to inspect wildlife close up, and to return anything they might find back to where they found it.

4. Once all the different areas have been explored, discuss your findings as a group and compare the species that you found across all of the different locations - you could draw pictures of what you have found or use labels to mark different species on the map.

Scaffolding and stretching

You could scaffold this lesson by creating a checklist or scavenger hunt with a list of items to find that can help guide your students in their search. Alternatively, you could provide a list of species with pictures to help students recognise different species.

You could stretch this lesson by asking students to design their own ID guide, drawing pictures of the species they might find and labelling key features to help others ID them. You could also challenge your students to write and test their own hypothesis, encouraging them to think about where they expect to find different species, or how factors such as weather or seasons may affect what they see.

Climate links

Climate change is causing rapid changes to habitats, that will only continue in the future. Understanding what habitats look like and the type of species that live in them will help us to monitor changes over time. It will also help young people to establish a connection to the wildlife they observe and work to protect it.

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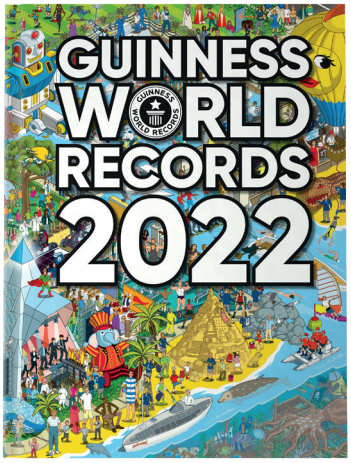

LESSON 3 Communicate

Lesson objectives

- To report on the habitats and species found, with the purpose to raise awareness of conservation
- To apply understanding of conservation to create a display of the different habitats you identified
- To create persuasive letters or posters that explain what conservation is and how others can work to protect habitats

Curriculum links

Science:

- Report and present findings from enquiries, including conclusions, and explanations of the degree of trust in results, in oral and written forms such as displays and other presentations
- Recognise that environments can change and that this can sometimes pose dangers to living things

English:

- Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary
- Participate in discussions, presentations, performances, role play, improvisations, and debates

Art and design:

- Use a range of materials creatively to design and make products
- Use drawing, painting, and sculpture to develop and share their ideas, experiences, and imagination

Equipment list:

- Art materials and natural resources to create a large map
- Coloured pens or pencils
- Plain paper

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Lesson explanation

Conservation is important to protect the ecosystems, habitats, species, and resources of our planet. There are lots of actions we can take, and one of the most important ones is to communicate what your students have learnt and inspire others to act too! In this lesson, your students will create a display of the habitats they have mapped, including the species they have found, and partner this with persuasive posters and letters that encourage others to protect the habitats in your local area!

Step by step

1. The first activity will be creating your class display. Your students could use natural materials, like dried leaves, sticks and bark, or art materials like coloured paper and paint, to create a large version of the map the class looked at in lesson one. They could then mark on key features, such as the school, any nearby buildings, or roads and, most importantly, the habitats they have explored. Once they've created the map, your students can begin to mark on some of the animal and plant species you observed in lesson 2. Your students could choose to print or collage pictures of the species they found, or create drawings to showcase their findings instead.

2. The next activity will be to encourage the local community to conserve the habitats and species showcased in your map. Armed with the knowledge of local habitats, your students are well placed to make recommendations for how to protect nature in your area. Each student can communicate this through either a poster or a letter to a local MP or community group. These letters and posters can contribute to your display. Some information your students may wish to include are:

- What is conservation and why is it important?
- What types of habitats did they find? What species did they find in the habitats?
- How can people in the community help to conserve habitats and wildlife?

Scaffolding and stretching

You could scaffold this lesson by encouraging students to choose to create a poster, providing key words and a tick list of what should be included. Alternatively, you could encourage your students to write a letter, but provide clear questions for them to answer, or a writing framework with sentence starters.

You could stretch this lesson by asking students to write letters in which they compare or contrast the different habitats found or provide an opinion on why they think it is important to conserve the habitats they found. Students could also consider writing to local wildlife charities, such as The Wildlife Trust, for advice and support about the habitats they have found and the species they have identified. Wildlife charities may be able to provide more information about local species that could complement the students learning.

Climate links

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