

Y4 Science – Living Things and Their Habitats

(Protecting our World)

Targets to be Covered:

- 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
- recognise that environments can change and that this can sometimes pose dangers to living things

Learning Ladders:

- I can research and describe the negative human effects on an environment such as dropping litter and pollution.
- I can research and describe the positive human effects on an environment such as creating nature reserves.
- I understand the impact humans have on their local environment.
- I can recognise that environments change over time.
- I can use keys to identify living things in their local environment.
- I can group plants into categories such as flowering plants and non-flowering plants.
- I can group animals into vertebrates and invertebrates.

Working Scientifically:

- I can gather, record, classify and present data in a variety of ways to help in answering questions.
- I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.
- I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
- I can identify differences, similarities or changes related to simple scientific ideas and processes.
- I can use straightforward scientific evidence to answer questions or to support their findings.

Key Vocabulary:

classification, classification keys, environment, habitat, human impact, positive, negative, vertebrate, invertebrate, migrate, hibernate

Week	Order of Study
1	Pre-assessment quiz Knowledge Organiser <u>LI: I can group animals into vertebrates and invertebrates.</u> <u>LI: I can use classification keys to identify living things in my local environment.</u> Type of Scientific Enquiry – Identifying and classifying – using classification keys to identify animals based on their features. BQ: How can we use keys to help classify and group living things? Starter – Recap what vertebrates and invertebrates are by looking at the PowerPoint. Children to then draw a table in their books and place the following animals into the correct category of vertebrate and invertebrate (cat, dog, worm, octopus, ladybird, butterfly).

	Main lesson – Briefly look at Charles Henry Turner. https://kids.britannica.com/kids/article/Charles-Henry-Turner/443433 Ask the children who was he? What did he do? Make it clear that this links to our work with habitats and emphasise that important people like Charles Henry Turner classify animals. Then, look at the PowerPoint about classifying animals. Task – The children will complete the flowchart, by cutting and sticking the animals in the correct places. The children will then have a go at creating their own if they are exceeding.
2	LI: I can group plants into categories such as flowering plants and non-flowering plants. Type of Scientific Enquiry – Identifying and classifying – using classification keys to identify plants based on their features. BQ: How can we group different plants? Starter – Recap what children know about plants. Can the children name any plants? Link to Year 1/2 learning on the similarities and differences between plants. Can the children name a variety of plants in their habitats? Main Lesson – As a class, watch the video on classifying plants. Discussion about how many ways there are to group plants and what were they called. Go through examples as a class before working independently. https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-classifying-and-grouping-plants/zh9jvk7 Task – Children to complete a worksheet. The children will have pictures of different plants and a key to help them classify the different plants. As an extension the children have to explain why each plant fits each category.
3	NEW TO TEACH YEAR 4 2023-24! – The positive human effects on the environment LI: I can research and describe positive and negative human effects on an environment. Type of Scientific Enquiry – Secondary research – researching the effects humans have on an environment (positive and negative). Starter – Give chn post it notes. Write down all the negative human effects on an environment they can think of (in groups). Put on board under the heading negative human effects. Then repeat with positive human effects. Discuss as a class what the children already know and address any misconceptions. Main Lesson – Either on iPads or as a class, watch videos on human effects on an environment and read some information about it. Children to take notes on the worksheet written below (or split book into a table of positive and negative effects). Task – Children to complete a worksheet commenting on human effects on an environment. Possible worksheet to use linked below: https://content.twinkl.co.uk/resource/fd/ed/t-tp-1660553549-the-human-impact-on-the-environment_ver_2.pdf?__token__=exp=1678185970-acl=%2Fresource%2Ffd%2Fed%2Ft-tp-1660553549-the-human-impact-on-the-environment_ver_2.pdf%2A-hmac=f3c62d8fc1c7bdc346f3b7b638350ed9543106a6247c6926849af59b26a4a8de Plenary – Review the post-it notes from the start of the lesson. What else can children add? Teacher to add them to the board. Resources needed: Access to internet, videos and printed information or books of human effects on the environment, worksheet.

	Key terminology – positive, negative, human effects, environment, pollution
4	NEW TO TEACH YEAR 4 2023-24! – The negative human effects on the environment Continued LI: I can research and describe positive and negative human effects on an environment. Type of Scientific Enquiry – Research – researching the effects humans have on an environment (positive and negative). Starter – Recap the positive and negative human effects on an environment that the children found out last lesson. Main lesson – Children to use fieldwork to explore human impact on the local environment either around school grounds or on a trip round Bedworth e.g. litter, tree planting. Plenary – Write about the positive and negative human effects on the local environment. Key terminology – positive, negative, human effects, environment, pollution
5	Assessment time – Children complete the quiz to review understanding and plug any gaps.