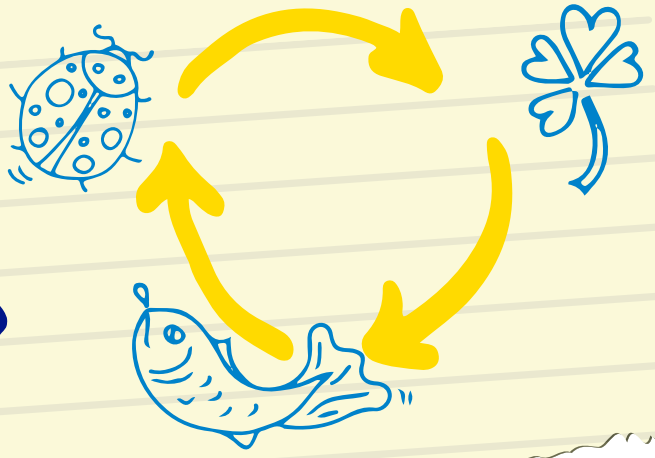
Life Cycles

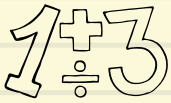


Use the parks to study the life cycles of animals, plants and insects, looking for specimens of each alongside evidence of the different stages of their development.

Suitable for KS2

Curriculum areas covered:

Science
Scientific methods & processes
Classification
Life cycles
Habitats



Mathematics
Lists and ordering systems
Measures

English
Evaluation discussions
Poetry or narrative writing

Art & Design
Observational drawing

Design & Technology
Exploring Google technology

Physical Education
Outdoor exercise

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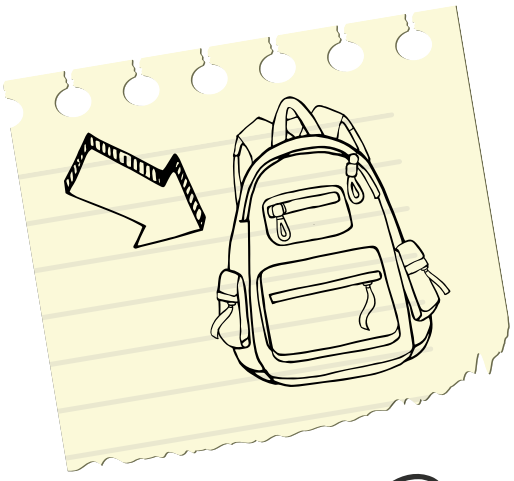
Life Cycles

Before your visit:

- Consider how many different types of living **species** might exist in the various **habitats** of Kearsney Abbey and Russell Gardens, listing the possibilities.
- **Classify** them together into groups with similar features, such as insects, reptiles, fish, birds, mammals, grasses, single stem plants, bushes, trees, moulds and algae, club fungi (toadstools and mushrooms).
- Classify these into larger **Kingdoms** – Animal (vertebrate or invertebrate), Plant or Fungi. EXAMPLE: Species – Robin, Group – Bird, Kingdom – Animal (vertebrate)
- Draw a **tree diagram** grouping and relating all of the species named.

Where to go:

- Collect the **PUPILS' GREY and BLUE,** and **TEACHER'S BLACK RESOURCE RUCKSACKS.** Use the old billiards room as 'Base Camp' to start the parkland exploration activities.



During the visit:

- Warm up Observation Activity – working in pairs, one person shuts their eyes and is led by the other to points of interest in a chosen area of the park. When the guide has positioned the person in a place of interest, ask them to open their eyes for just a second and close them again, then lead them onto another very contrasting view doing the same. Give an experience of about five contrasting views, then swap roles.
  HEALTH & SAFETY NOTICE – Choose a place in the park away from water or other obvious hazards. Ensure pupils understand their responsibility in keeping the person with closed eyes safe while acting as guides.
- As a class or in adult-led groups, explore the parks, paying very particular attention to what is around you, noticing the variety of habitats. Look both high and low for evidence of the various wildlife, birdlife, river life and plants. Try to find a good example of each, where many stages of their lives are evident at the same time. Use the Collins Complete Guide to British Wildlife book in the teacher's grey resource rucksack to aid identification of the more unusual wildlife.
- Make a series of detailed observational drawings showing the growth stages found for each specimen. Leave gaps in the drawing series for any missing stages (these can be researched after the trip). Annotate them with their biological classifications, life stages, and also approximate dimensions.
  EXAMPLES of LIFE STAGES
  - Oak tree – fallen acorn > new tree shoot > sapling > young tree > adult tree
  - Swan – eggs > young cygnet > full grown cygnet > adult swan
  - Butterfly – egg > caterpillar > chrysalis > adult butterfly
  - Frog – frog spawn > young tadpoles > mature tadpoles > adult frog
- Estimate the age of the specimens for each life stage of the drawings.

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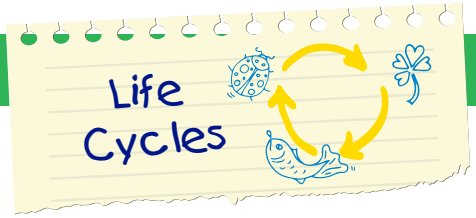


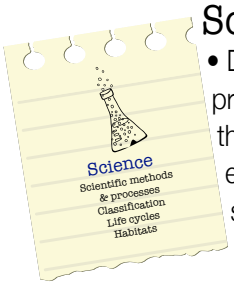
After the visit:

- Use the Internet to research the actual life span of each of the specimens found.
- As a class, guess what life form is the longest living on Earth. Research the class's guesses on the Internet, creating a scaled timeline chart showing them in order of increasing life span. Where does the human come in this scale? How many human successions has the oldest life form seen in its own life span?
- Choose a life form and use it as a subject for a poem or piece of narrative writing in the first person, describing what it might feel like to live in each of the life cycles and what the transition between them might be like.

Resources during visit:

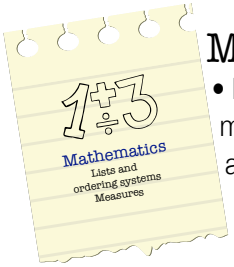
- Use on-site **PUPILS' GREY & BLUE RESOURCE RUCKSACKS** for clipboards, magnifying insect viewers, magnifying glasses, binoculars, tape measures (1m), and waterproof mats in case of wet weather.
- You will also need the **TEACHER'S BLACK RESOURCE RUCKSACK** for same items, and the Collins Complete Guide to British Wildlife book.
- **School to supply:** drawing and writing materials (pens / pencils and paper).

Curriculum links:



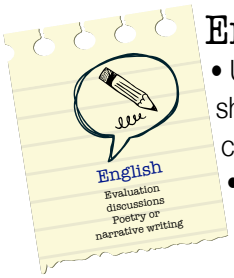
Science:

- Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
- Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.



Mathematics:

- Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- Can solve problems by applying their mathematics to a variety of routine and non- routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

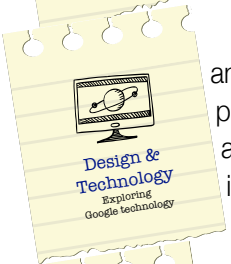


English:

- Use discussion in order to learn; they should be able to elaborate and explain clearly their understanding and ideas.
- Comprehension (both listening and reading).
- Articulate and justify answers, arguments and opinions.
- Consider and evaluate different viewpoints, attending to and building on contributions of others.
- Composition (articulating ideas and structuring them in speech and writing).

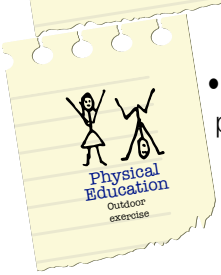
Art & Design:

- Become proficient in drawing, painting, sculpture and other art, craft and design techniques.



Design & Technology:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.



Physical Education:

- Are physically active for sustained periods of time.
- Lead healthy, active lives.

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Resource Sheet - Kearsney Parks Sketch Map

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