

Wildlife Explorers Workshop

Curriculum Links

Working with Birmingham and Black Country Wildlife Trust. Explore nature in the cemetery and learn about habitats, ecosystems and food chains. Help us to take better care of the plants, animals and other creatures living in these beautiful places, whilst respecting the history of the cemetery. Take the opportunity to visit at different times of the year and see how the natural environment changes with the seasons.

Curriculum links for this session:

<p>Key Stage 1 Year 1</p>	<ul style="list-style-type: none"> - identify and name a variety of common wild and garden plants, including deciduous and evergreen trees - identify and describe the basic structure of a variety of common flowering plants, including trees. <p>Pupils should use the local environment throughout the year to explore and answer questions about plants growing in their habitat. Where possible, they should observe the growth of flowers and vegetables that they have planted.</p> <p>They should become familiar with common names of flowers, examples of deciduous and evergreen trees, and plant structures (including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem).</p> <p>Pupils might work scientifically by: observing closely, perhaps using magnifying glasses, and comparing and contrasting familiar plants; describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants including trees. Pupils might keep records of how plants have changed over time, for example the leaves falling off trees and buds opening; and compare and contrast what they have found out about different plants.</p> <ul style="list-style-type: none"> - identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals - identify and name a variety of common animals that are carnivores, herbivores and omnivores <p>Pupils should use the local environment throughout the year to explore and answer questions about animals in their habitat. They should understand how to take care of animals taken from their local environment and the need to return them safely after study. Pupils should become familiar with the common names of some fish, amphibians, reptiles, birds and mammals, including those that are kept as pets.</p> <ul style="list-style-type: none"> - observe changes across the four seasons observe and describe weather associated with the seasons and how day length varies.
<p>Key stage 1 Year 2</p>	<ul style="list-style-type: none"> - explore and compare the differences between things that are living, dead, and things that have never been alive - identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other - 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"> - observe and describe how seeds and bulbs grow into mature plants - find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.
Key Stage 2 Year 3	<ul style="list-style-type: none"> - making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers - identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers - explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. - explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. - recognise that soils are made from rocks and organic matter
Key Stage 2 Year 4	<ul style="list-style-type: none"> - 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 <p>Pupils should use the local environment throughout the year to raise and answer questions that help them to identify and study plants and animals in their habitat. They should identify how the habitat changes throughout the year. Pupils should explore possible ways of grouping a wide selection of living things that include animals and flowering plants and non-flowering plants. Pupils could begin to put vertebrate animals into groups such as fish, amphibians, reptiles, birds, and mammals; and invertebrates into snails and slugs, worms, spiders, and insects.</p> <p>Pupils might work scientifically by: using and making simple guides or keys to explore and identify local plants and animals; making a guide to local living things.</p>
Key Stage 2 Year 5	<ul style="list-style-type: none"> - taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate - describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. - Pupils should study and raise questions about their local environment throughout the year. They should observe life-cycle changes in a variety of living things, for example, plants in the vegetable garden or flower border, and animals in the local environment.
Key stage 2 Year 6	<ul style="list-style-type: none"> - taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate - describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals - give reasons for classifying plants and animals based on specific characteristics.
Key Stage 3	<ul style="list-style-type: none"> - the interdependence of organisms in an ecosystem, including food webs and insect pollinated crops - how organisms affect, and are affected by, their environment, including the accumulation of toxic materials. - the rock cycle and the formation of igneous, sedimentary and metamorphic rocks (using gravestones to illustrate different rock types)

	<ul style="list-style-type: none"> - develop an interest in, and commitment to, participation in volunteering as well as other forms of responsible activity, that they will take with them into adulthood - the roles played by public institutions and voluntary groups in society, and the ways in which citizens work together to improve their communities, including opportunities to participate in school-based activities
<p>Key Stage 4</p>	<ul style="list-style-type: none"> - planning experiments to make observations, test hypotheses or explore phenomena - applying a knowledge of a range of techniques, apparatus, and materials to select those appropriate both for fieldwork and for experiments - carrying out experiments appropriately, having due regard to the correct manipulation of apparatus, the accuracy of measurements and health and safety considerations - living organisms may form populations of single species, communities of many species and ecosystems, interacting with each other, with the environment and with humans in many different ways - living organisms are interdependent and show adaptations to their environment - levels of organisation within an ecosystem - some abiotic and biotic factors which affect communities; the importance of interactions between organisms in a community - how materials cycle through abiotic and biotic components of ecosystems - the role of microorganisms (decomposers) in the cycling of materials through an ecosystem - organisms are interdependent and are adapted to their environment - the importance of biodiversity - methods of identifying species and measuring distribution, frequency and abundance of species within a habitat - positive and negative human interactions with ecosystems. - common atmospheric pollutants: sulphur dioxide, oxides of nitrogen, particulates and their sources (using damage to gravestones as evidence) - the different ways in which a citizen can contribute to the improvement of his or her community, to include the opportunity to participate actively in community volunteering, as well as other forms of responsible activity