

National Curriculum Links:

All workshop session plans are embedded with Science and Geography National Curriculum links, as well as core skills within Maths, English and Working Scientifically.

Touch & Feel (EYFS)

Numerical Patterns	<ul style="list-style-type: none">- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.
The Natural World	<ul style="list-style-type: none">- Explore the natural world around them, making observations and drawing pictures of animals and plants;

Mystery Feather (EYFS)

Listening	<ul style="list-style-type: none">- Listen attentively and respond to what they hear with relevant questions, comments and actions when being read to and during whole class discussions and small group interactions.- Make comments about what they have heard and ask questions to clarify their understanding;
Self-Regulation	<ul style="list-style-type: none">- Show an understanding of their own feelings and those of others, and begin to regulate their behaviour accordingly.
Literacy	<ul style="list-style-type: none">- Demonstrate understanding of what has been read to them by retelling stories and narratives using their own words and recently introduced vocabulary; - Anticipate – where appropriate – key events in stories; - Use and understand recently introduced vocabulary during discussions about stories, non-fiction, rhymes and poems and during role-play.
The Natural World	<ul style="list-style-type: none">- Explore the natural world around them, making observations and drawing pictures of animals and plants;- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class;

The Big Bug Hunt (EYFS)

Numerical Patterns	<ul style="list-style-type: none">- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.
The Natural World	<ul style="list-style-type: none">- Explore the natural world around them, making observations and drawing pictures of animals and plants;

Classification (KS1/2)

Year 1	<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.- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets).
Year 2	<ul style="list-style-type: none">- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).
Year 3	<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.
Year 6	<ul style="list-style-type: none">- 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.- Give reasons for classifying plants and animals based on specific characteristics.

Food Chains (KS1/2)

Year 1	<ul style="list-style-type: none">- Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
Year 2	<ul style="list-style-type: none">- 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.
Year 3	<ul style="list-style-type: none">- 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.
Year 4	<ul style="list-style-type: none">- Describe the simple functions of the basic parts of the digestive system in humans.- Identify the different types of teeth in humans and their simple functions.- Construct and interpret a variety of food chains, identifying producers, predators and prey.
Year 6	<ul style="list-style-type: none">- Describe the ways in which nutrients and water are transported within animals, including humans.

Habitats & Adaptations (KS1/2)

Year 1	<ul style="list-style-type: none">- Observe changes across the 4 seasons.- Observe and describe weather associated with the seasons and how day length varies.
Year 2	<ul style="list-style-type: none">- 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.
Year 4	<ul style="list-style-type: none">- Recognise that environments can change and that this can sometimes pose dangers to living things.
Year 6	<ul style="list-style-type: none">- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Life at Dudley Castle (KS1/2)

Year 1-2	<ul style="list-style-type: none">- Changes within living memory.- Events beyond living memory that are significant nationally.
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	<ul style="list-style-type: none"> - The lives of significant individuals in the past who have contributed to national achievements; William the Conqueror, the Tudors, Queen Elizabeth I. - Significant historical events, people and places in their own locality.
Year 3-6	<ul style="list-style-type: none"> - A local history study; a study over time tracing how several aspects of national history are reflected in the locality AND a study of an aspect of history or a site dating from a period beyond 1066 that is significant in the locality. - Changing power of Monarchs using case studies; William the Conqueror, Henry II, the Tudors. - Changes in an aspect of social history, such as crime and punishment from the Anglo-Saxons to the present.

African Savannah (KS1/2)

Year 1	<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.
Year 2	<ul style="list-style-type: none"> - 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.
Year 4	<ul style="list-style-type: none"> - Recognise that environments can change and that this can sometimes pose dangers to living things.
Year 6	<ul style="list-style-type: none"> - Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Ice & Oceans (KS1/2)

Year 1	<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.
Year 2	<ul style="list-style-type: none"> - 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.
KS1	<ul style="list-style-type: none"> - Name the location of hot and cold areas of the world in relation to the Equator and the North and South Poles.
Year 4	<ul style="list-style-type: none"> - Recognise that environments can change and that this can sometimes pose dangers to living things.
Year 6	<ul style="list-style-type: none"> - Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
KS2	<ul style="list-style-type: none"> - Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night).

Rainforests (KS2)

Year 1	<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.
Year 2	<ul style="list-style-type: none"> - 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.

	<ul style="list-style-type: none"> - Identify and name a variety of plants and animals in their habitats, including microhabitats.
Year 3	<ul style="list-style-type: none"> - Recognise that soils are made from rocks and organic matter.
Year 4	<ul style="list-style-type: none"> - Recognise that environments can change and that this can sometimes pose dangers to living things. - Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
KS2	<ul style="list-style-type: none"> - Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities. - Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night). - Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region in North or South America. - Describe and understand key aspects of: Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle, Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water.

Endangered Species (KS2)

Year 4	<ul style="list-style-type: none"> - Recognise that environments can change and that this can sometimes pose dangers to living things.
Year 5	<ul style="list-style-type: none"> - Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
Year 6	<ul style="list-style-type: none"> - 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. - Give reasons for classifying plants and animals based on specific characteristics.

Dinosaurs & Evolution (KS2)

Year 2	<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.
Year 3	<ul style="list-style-type: none"> - Describe in simple terms how fossils are formed when things that have lived are trapped within rock.
Year 4	<ul style="list-style-type: none"> - Recognise that environments can change and that this can sometimes pose dangers to living things.
Year 6	<ul style="list-style-type: none"> - Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. - Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. - Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Ecosystems (KS3/4)

KS3 Genetics & Evolution	<ul style="list-style-type: none">- Differences between species.- The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection
KS3 Relationships in an Ecosystem	<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.
KS4 Ecosystems	<ul style="list-style-type: none">- 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.

Genetics & Evolution (KS3/4)

KS3 Reproduction	<ul style="list-style-type: none">- Reproduction in mammals, including the structure and function of the male and female reproductive systems, menstrual cycle (without details of hormones), gametes, fertilisation, gestation and birth, to include the effect of maternal lifestyle on the foetus through the placenta.- Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms.
KS3 Inheritance, Chromosomes, DNA & Genes	<ul style="list-style-type: none">- Heredity as the process by which genetic information is transmitted from one generation to the next.- The variation between individuals within a species being continuous or discontinuous, to include measurement and graphical representation of variation.- The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection.
KS4 Evolution, Inheritance & Variation	<ul style="list-style-type: none">- The importance of selective breeding of plants and animals in agriculture.- The uses of modern biotechnology including gene technology; some of the practical and ethical considerations of modern biotechnology.

Role of Zoos (KS3/4)

KS3 Inheritance, Chromosomes, DNA & Genes	<ul style="list-style-type: none">- Changes in the environment may leave individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction.- The importance of maintaining biodiversity and the use of gene banks to preserve hereditary material.
KS4 Evolution, Inheritance & Variation	<ul style="list-style-type: none">- The importance of selective breeding of plants and animals in agriculture.- The uses of modern biotechnology including gene technology; some of the practical and ethical considerations of modern biotechnology.

History of Dudley Castle (KS3/4)

KS3 & 4	<ul style="list-style-type: none">- The development of Church, state and society in Medieval Britain (1066-1509) including the Norman Conquest, the Black Death and the War of the Roses.- The development of Church, state and society in Britain (1509-1745) including the causes and events of the civil wars throughout Britain.- A local history study including; a depth study linked to the Dudley area, a study over time testing how far sites in their locality reflect aspects of national history.
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Philosophy & Ethics at the Zoo (KS3/4)

KS3 & 4	<ul style="list-style-type: none">- Provokes challenging questions about the meaning and purpose of; life, beliefs, the self, issues of right and wrong, and what it means to be human.- Encourages pupils to explore their own beliefs (whether they are religious or non-religious), in the light of what they learn, as they examine issues of religious belief and faith and how these impact on personal, institutional and social ethics; and to express their responses.
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Statement on Animal Handling:

Here at Dudley Zoo & Castle we aim to educate children of all ages about the natural world, conservation and history through the use of natural artefacts including skins, skulls and scales. We no longer include live animals in our classroom based workshops. This is to help ensure that both our learners and our animal's needs are met. Dudley Zoo & Castle is home to over 1300 animals which you and your students will have opportunity to see whilst exploring our 40-acre site during of your visit.