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.

Wild Worlds (KS1)

Year 1	- 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	- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).
Year 3	- Recognise that living things can be grouped in a variety of ways.

Supreme Senses (KS1)

Year 1	- Identify and name a variety of common animals that are carnivores, herbivores and omnivores. - identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.
Year 2	- 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.

Animal Detective for a Day (KS1)

Year 1	- Observe changes across the 4 seasons. - Observe and describe weather associated with the seasons and how day length varies.
Year 2	- 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.
KS1	- Name the location of hot and cold areas of the world in relation to the Equator and the North and South Poles.

Amazing Adaptations (KS2)

Year 3	- 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 4	- Recognise that environments can change and that this can sometimes pose dangers to living things.
Year 6	- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
Year 6	- 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.

Busy Bugs (KS2)

Year 4	- Recognise that environments can change and that this can sometimes pose dangers to living things.
Year 5	- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
Year 6	- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. - 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.

Nature on our Doorstep (KS2)

Year 4	- Recognise that environments can change and that this can sometimes pose dangers to living things.
Year 6	- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. - 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.
KS2	- 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.

Customs & Conservation (KS3/4)

KS3 **Inheritance, Chromosomes, DNA & Genes**	- 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.

Thoughts on Food (KS3/4)

KS3 **Nutrition & Digestion**	- Content of a healthy diet: carbohydrates, lipids (fats and oils), proteins, vitamins, minerals, dietary fibre and water, and why each is needed. - Calculations of energy requirements in a healthy daily diet.

	- The consequences of imbalances in the diet, including obesity, starvation and deficiency diseases. - The tissues and organs of the human digestive system, including adaptations to function and how the digestive system digests food (enzymes simply as biological catalysts). - The importance of bacteria in the human digestive system.
KS3 **Relationships in an Ecosystem**	- 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.

Extreme Evolution (KS3/4)

KS3 **Reproduction**	- 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.
KS3 **Relationships in an Ecosystem**	- 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.
KS3 **Inheritance, Chromosomes, DNA & Genes**	- 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 **Ecosystems**	- Organisms are interdependent and are adapted to their environment. - The importance of biodiversity. - Positive and negative human interactions with ecosystems.

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 animals in our workshops. This is to help ensure that both our learners and our animal's needs are met.