SBSP PROGRESSION OF COMPONENT KNOWLEDGE THROUGH SCIENCE UNITS

BIOLOGY – EVOLUTION AND INHERITANCE

Year 6 NC links:

- identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution
- recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

Year 6 Component Knowledge

- Understand that some characteristics are inherited
- Explain why offspring look similar but not identical to their parents
- Understand that variations in species can be due to environmental factors
- Describe how an animal is adapted to its environment
- Explain how an animal's adaptation helps it to survive in the habitat
- Predict how an animal would have to adapt to suit a different habitat
- Describe how a plant is adapted to its environment
- Explain how a plant's adaptation helps it to survive in the habitat
- Create a new plant that is perfectly adapted to survive in a habitat
- Understand that fossils provide information about living things that are now extinct
- Using evidence from fossils, compare extinct animals with those that are living and identify adaptations
- Use evidence from fossils to suggest some conclusions about life in the past
- Identify how living things have changed over time
- Describe how natural selection causes living things to evolve over time
- Explain why the theory of evolution was not accepted at first
- Identify differences in human ancestors
- Describe how humans have evolved
- Compare and contrast Neanderthals and homo sapiens

Working Scientifically Component Knowledge

- Reporting and presenting findings from enquiries - including conclusions, causal relationships and explanations of and a degree of trust in results – in oral and written forms such as displays and other presentations
- Identifying scientific evidence that has been used to support or refute ideas or arguments

Key Vocabulary

- offspring, environmental, inherit, variation, characteristic
- nutrition, climate, adaptation, habitat, feature
- predator, pollinate, nutrients, epiphytes, toxic
- Mary Anning, ichthyosaurus, fossil, Jurassic Coast, palaeontologist
- natural selection, extinct, Charles Darwin, evolve, theory
- tool, Neanderthal, ancestor, homo sapiens, primate

KS3 NC links:

Heredity as the process by which genetic information is transmitted from one generation to the next. A simple model of chromosomes, genes and DNA in heredity, including the part played by Watson, Crick, Wilkins and Franklin in the development of the DNA model. The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection. 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.