

St. Benedict's Primary School
SCIENCE
KNOWLEDGE AND SKILLS BUILDER

Science element from the National Curriculum – Evolution and Inheritance

Phase	Context for learning Y6 ILP Darwin's Delights	Knowledge and Skills
UPPER KEY STAGE 2	<p>Programme of Study linked to Evolution and Inheritance</p> <ul style="list-style-type: none"> • (Habitats) - 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. • (Enquiry) Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. • (Evolution) Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. 	<p>Skills Classify living things, including microorganisms, animals and plants, into groups according to common observable characteristics and based on similarities and differences.</p> <p>Knowledge Scientists classify living organisms into broad groups according to their characteristics. Vertebrates are an example of a classification group. There are a number of ranks, or levels, within the biological classification system. The first rank is called a kingdom, the second a phylum, then class, order, family, genus and species.</p> <p>Skills Plan and carry out a range of enquiries, including writing methods, identifying and controlling variables, deciding on equipment and data to collect and making predictions based on prior knowledge and understanding.</p> <p>Knowledge A method is a set of clear instructions for how to carry out a scientific investigation, including what equipment to use and observations to make. A variable is something that can be changed during a fair test. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding.</p> <p>Skills Identify how animals and plants are adapted to suit their environment, such as giraffes having long necks for feeding, and that adaptations may lead to evolution.</p>

- (Enquiry) Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

Knowledge

An adaptation is a physical or behavioural trait that allows a living thing to survive and fill an ecological niche. Adaptations evolve by natural selection. Favourable traits help an organism survive and pass on their genes to subsequent generations.

Skills

Plan and carry out a range of enquiries, including writing methods, identifying and controlling variables, deciding on equipment and data to collect and making predictions based on prior knowledge and understanding

Knowledge

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Skills

Choose an appropriate approach to recording accurate results, including scientific diagrams, labels, timelines, classification keys, tables, models and graphs (bar, line and scatter), linking to mathematical knowledge.

Knowledge

Data can be recorded and displayed in different ways, including tables, bar and line charts, scatter graphs, classification keys and labelled diagrams.

Skills

Identify that living things produce offspring of the same kind, although the offspring are not identical to either parent.

Knowledge

Animals that sexually reproduce generate new offspring of the same kind by combining the genetic material of two individuals. Each offspring inherits two of every gene, one from the female parent and one from the male parent.

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Skills

Describe how animals and plants can be bred to produce offspring with specific and desired characteristics (selective breeding).

		<p>Knowledge Animals and plants can be bred to produce offspring with specific and desired characteristics. This is called selective breeding. Examples include cows that produce large quantities of milk or crops that are disease-resistant.</p>
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