Science – Learning Objectives and Key Questions
Years 5 and 6

Throughout the Science Curriculum pupils will work Scientifically by :

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording results using scientific diagrams and labels
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and 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

Earth and Space: Can we describe the movement of the Earth, and other planets, relative to the Sun in the solar system? Describe the Sun, Earth and Moon as approximately spherical bodies. Can we explain day and night and the apparent movement of the sun across the sky?	**Forces:** Can we explain that unsupported objects fall towards the Earth because of the force of gravity acting on them? Identify the forces that act between moving surfaces. How do we recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect?	**Materials and their properties:** We are learning to compare and group together everyday materials on the basis of their properties. How do we know that some materials will dissolve in liquid to form a solution? Use knowledge of solids, liquids and gases to decide how mixtures might be separated.
Light: Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light and explain why shadows have the same shape as the objects that cast them. Explain that we see things because light travels from light sources to our eyes.	**Living Things and their Habitats:** Can we describe the life cycles and life processes of different animals and plants? How and why should plants and animals be classified?	**Animals including humans:** How can we describe the changes as humans develop to old age, identifying factors which could affect these changes? Can we identify the main parts of the circulatory system and their functions?
Evolution and Inheritance: What evidence do Scientists cite to show that living things have changed over time? Can we identify how living things adapt to suit their environment?	**Electricity:** Can we use symbols to represent objects in a simple circuit? Can you make links between voltage and brightness of lamps and volume of a buzzer?	