Year 5/ Year A Science Progression in Skills and Knowledge

NC Knowledge	Pupils not securing learning	Pupils achieving depth in learning
Autumn 1: Evolution and inheritance • 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.		
Autumn 2: Light • recognise that light appears to travel in straight lines • use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye • explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes • use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.		
Spring 1 and 2: Forces • explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object • identify the effects of air resistance, water resistance and friction, that act between moving surfaces • recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.		

NC Knowledge	Pupils not securing learning	Pupils achieving depth in learning
Summer 1: Animals including animals • describe the changes as humans develop to old age.		
Summer 2: Livings things and habitats • describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird • describe the life process of reproduction in some plants and animals		

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Y5/6 Working:	Pupils not securing learning	Pupils achieving depth in learning
• 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 data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs		

Y5/6 Working:	Pupils not securing learning	Pupils achieving depth in learning
• 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.		