NE708 Teaching primary science: getting started

Working Scientifically skills

Questioning During years 1 and 2 (age 5-7), pupils should be taught to ask simple questions and recognise that they can be answered in different ways -During years 3 and 4 (ages 7-9), pupils should be taught to ask relevant questions and use different types of scientific enquiries to answer them -During years 5 and 6 (ages 9-11), pupils should be taught to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	**Predicting** During years 3 and 4 (age 7-9), pupils should be taught to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions -During years 5 and 6 (age 9-11), pupils should be taught to use test results to make predictions to set up further comparative and fair tests

Concluding During years 3 and 4 (age 7-9), pupils should be taught to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions -During years 5 and 6 (age 9-11), pupils should be taught to report and present 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	**Observing** During years 1 and 2 (age 5-7), pupils should be taught to observe closely, using simple equipment -During years 3 and 4 (age 7-9), pupils should be taught to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

Identifying and classifying During years 1 and 2 (age 5-7), pupils should be taught to identify and classify -During years 3 and 4 (age 7-9), pupils should be taught to gather, record, classify and present data in a variety of ways to help in answering questions identifying differences, similarities or changes related to simple scientific ideas and processes - During years 5 and 6 (age 9-11), pupils should be taught to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs identifying scientific evidence that has been used to support or refute ideas or arguments	**Measuring** During years 3 and 4 (age 7-9), pupils should be taught to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers - During years 5 and 6 (age 9-11), pupils should be taught to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate

Testing	Recording
During years 1 and 2 (age 5-7), pupils should be taught to perform simple tests -During years 3 and 4 (age 7-9), pupils should be taught to set up simple practical enquiries, comparative and fair tests - During years 5 and 6 (age 9-11), pupils should be taught to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary using test results to make predictions to set up further comparative and fair tests	During years 1 and 2 (age 5-7), pupils should be taught to gather and record data to help in answering questions -During years 3 and 4 (age 7-9), pupils should be taught to gather, record, classify and present data in a variety of ways to help in answering questions, recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables - During years 5 and 6 (age 9-11), pupils should be taught to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs