

Science Roadmap Investigative Skills

LKS2 Year 3/4

To ask relevant questions and use different types of scientific enquiries to answer them

Set up simple practical enquiries, comparative and fair tests

Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

Gather, record, classify and present data in a variety of ways to help in answering questions

Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

Identify differences, similarities or changes related to simple scientific ideas and

Use straightforward scientific evidence to answer questions

Year
5

UKS2 Year 5/6

Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary

Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

Use test results to make predictions to set up further comparative and fair tests Report and present 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

Identify scientific evidence that has been used to support or refute ideas or arguments

Year
4

Year
3

Year
2

KS 1 Year 2

To be able to use tally charts, pictograms and bar charts to record information To be able to use scientific language

To use simple equipment to observe changes over time

To use observations to answer questions noticing similarities, differences and patterns

To use secondary sources of information and data to answer questions

Year
6

Year
1

Year 1

To be able to ask simple questions

To recognise that questions can be asked in different ways

To be able to perform simple comparative tests

To be able to compare things

To be able to identify, group and classify things

To be able to use simple equipment to make measurements

To be able to talk about their findings

Year
1