



YEAR 3 & 4

Working Scientifically One (WS1)

Asking relevant questions and using different types of scientific enquiries to answer them.

Children should use their prior knowledge when asking questions or be provided with a range of question stems where appropriate.

They should be able to answer age appropriate questions posed by the teacher. In order for the children to answer these questions, they should be given a range of resources, both practical and written and decide themselves how to gather the evidence to answer the question. Secondary sources should be given when they cannot answer the question practically. Using the seven enquiry skills, pupils should be able to identify the type of enquiry they have chosen to be able to answer the question.

Working Scientifically Two (WS2)

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

The children make systematic (methodical) and careful observations. They use a range of equipment for measuring: length, time, temperature and capacity with support of their maths knowledge, of standard units, for their measurements.

Working Scientifically Three (WS3)

Setting up simple practical enquiries, comparative and fair tests.

The children will select from a range of practical resources to be able to gather the evidence they need to answer the question posed by the teacher or their own. Once their plan is created, they are able to follow it by: making observations, classifying, comparing, fair testing, tests over time and pattern seeking.

A comparative test is performed by changing a variable that is qualitative e.g. the type of material, shape of the parachute. This leads to a ranked outcome.

A fair test is performed by changing a variable that is quantitative e.g. the thickness of the material or the area of the canopy. This leads to establishing a causative relationship.



YEAR 3 & 4

Working Scientifically Four (WS4)

Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. Recoding findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.

The children will start to decide how to record and present their evidence, with support from the teacher. They can record their observation using: using photographs, videos, pictures, labelled diagrams or writing.

Any measurements could be recorded in: tables, tally charts and bar charts (given templates, if required, to which they can add headings). Finally, classifications could be recorded using: tables, Venn diagrams and Carroll diagrams.

The children will need support to present the same data in different ways in order to help with answering the question.

Working Scientifically Five (WS5)

Using straightforward scientific evidence to answer questions or to support their findings.

Children answer their own and others' questions based on: observations they have made, measurements they have taken or information they have gained from secondary sources. Their answers should be consistent with the evidence to stop misconceptions.

Working Scientifically Six (WS6)

Identifying differences, similarities or changes related to simple scientific ideas and processes.

Children should be able interpret their data to generate simple comparative statements based on their evidence. They begin to identify naturally occurring patterns and causal relationships.

**YEAR 3 & 4****Working Scientifically Seven (WS7)**

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

Children will draw conclusions based on the evidence they have collected or on current subject knowledge. Any adapted methods should be identified, as they progress, and they should be able to recognise how they would do something differently if they repeated the enquiry again.

Once the investigation or learning is complete, the children should be able to ask further questions, which can be answered by extending the same enquiry

Working Scientifically Eight (WS8)

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

They communicate their findings to an audience both orally and in writing, using the appropriate scientific vocabulary taught.