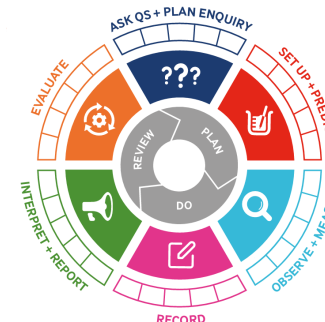


Science Progression Document (EYFS - Year 6)

Working Scientifically develops pupils' understanding of how scientific knowledge is established through questioning, enquiry, observation, measurement, recording, interpretation and evaluation. These skills are taught through substantive science content and progress from exploring and observing in EYFS and KS1, through increasingly systematic enquiry in Lower KS2, to greater independence and critical thinking in Upper KS2.

The progression is organised through the TAPS Working Scientifically cycle: **PLAN - DO - REVIEW**, using the six recurring skills shown in the wheel.



PLAN

Ask Questions & Plan Enquiry

Pupils develop from asking simple questions about what they observe to selecting and planning appropriate types of scientific enquiry. As they progress, they make increasingly independent decisions about how questions can be answered and recognise when variables need to be controlled.

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Asks questions about things they notice.	Asks simple questions about the world around them and begins to think about how they could find answers.	Asks simple questions and recognises that they can be answered in different ways.	Asks relevant questions and identifies different ways they could be investigated.	Selects appropriate types of scientific enquiry to answer relevant questions.	Plans different types of scientific enquiry and identifies variables that may need to be controlled.	Independently plans appropriate scientific enquiries, recognising and controlling variables where necessary.

DO

Set Up & Predict

Pupils develop from carrying out simple practical activities to setting up comparative and fair tests. With increasing scientific understanding, they use previous results and knowledge to make predictions and make increasingly independent decisions about how an enquiry should be conducted.

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Explores what happens when they try things out.	Takes part in simple tests and says what they think might happen.	Performs simple tests and uses observations or ideas to suggest what might happen.	Sets up simple practical enquiries and comparative tests.	Sets up comparative and fair tests, recognising what should be kept the same.	Uses scientific knowledge and test results to make predictions and set up further tests.	Independently sets up comparative and fair tests, using results to make predictions for further enquiry.

Science Progression Document (EYFS - Year 6)

DO

Observe & Measure

Pupils develop increasingly careful and systematic observational and measurement skills. They progress from using their senses and simple equipment to selecting scientific equipment, using standard units and taking increasingly accurate, precise and repeat measurements.

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Uses their senses to observe and talk about what they notice.	Observes closely and begins to use simple equipment.	Observes closely, using simple equipment to gather information.	Makes systematic and careful observations and begins to measure using standard units.	Selects and uses a range of equipment to take increasingly accurate measurements.	Takes measurements using a range of scientific equipment with increasing accuracy and precision.	Selects equipment appropriately, takes precise measurements and repeats readings where appropriate.

DO

Record

Pupils develop increasingly sophisticated ways of recording observations and results. They progress from simple representations and recording observations to selecting appropriate scientific diagrams, tables, classification keys and graphs.

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Talks about, draws or represents what they notice.	Gathers and records simple observations with support.	Gathers and records data to help answer questions.	Records findings using simple scientific language, drawings, labelled diagrams and tables.	Gathers, classifies and presents data using appropriate tables, keys and bar charts.	Records data and results using scientific diagrams, labels, classification keys, tables and graphs.	Independently selects appropriate ways to record increasingly complex data, including scatter graphs, bar and line graphs.

Science Progression Document (EYFS - Year 6)

REVIEW

Interpret & Report

Pupils develop from talking about what they notice to using observations, measurements and data to identify patterns, draw conclusions and explain findings. They increasingly use appropriate scientific vocabulary and evidence when communicating their results.

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Talks about what happened and describes what they notice.	Uses observations and ideas to suggest simple answers.	Uses observations and results to answer questions and communicates what they have found.	Identifies simple differences, similarities, changes and patterns in findings.	Uses results to draw simple conclusions and reports findings using scientific language.	Draws conclusions from data and observations and reports findings using appropriate scientific language.	Explains conclusions and causal relationships using evidence, presenting findings clearly in oral and written forms.

REVIEW

Evaluate

Pupils develop from reflecting on what happened in a simple investigation to considering the quality of evidence and the trustworthiness of results. They increasingly identify improvements, raise further questions and evaluate evidence used to support or challenge scientific ideas.

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Talks about what happened during an exploration or activity.	Talks about what they found out from a simple test.	Compares results or observations and begins to ask further questions.	Uses results to suggest improvements and raise further questions with support.	Uses results to make predictions, suggest improvements and raise further questions.	Begins to explain how much trust can be placed in results and identifies evidence that supports or challenges ideas.	Evaluates the degree of trust in results and uses scientific evidence to support or refute ideas and arguments.

Scientific Enquiry Types

Across the curriculum, pupils apply these Working Scientifically skills through: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing; and research using secondary sources.