

UFS

Lewannick CP School Progression of Enquiry Skills in Science.



Show curiosity about objects, events and people
Playing & Exploring
Questions why things

Engage in open-ended activity
Playing & Exploring

Take a risk, engage in new experiences and learn by trial and error
Playing & Exploring

Find ways to solve problems / find new ways to do things / test their ideas
Creating & Thinking Critically

Develop ideas of grouping, sequences, cause and effect
Creating & Thinking Critically, Know about similarities and differences in relation to places, objects, materials and living things
ELG: The World

Make links and notice patterns in their experience
Creating & Thinking Critically

Use senses to explore the world around them

Closely observes what animals, people and vehicles do

Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world

Choose the resources they need for their chosen activities
ELG: Self Confidence & Self Awareness
Handle equipment and tools effectively
ELG: Moving & Handling

Create simple representations of events, people and objects

Answer how and why questions about their experiences
ELG: Understanding
Make observations of animals and plants and explain why some things occur, and talk about changes
ELG: The World

Develop their own narratives and explanations by connecting ideas or events. Builds up vocabulary that reflects the breadth of their experience.
ELG: Speaking

Year 1

Explore the world around them and raise their own simple questions

Year 1

Year 2



Carry out simple tests

Observe closely using simple equipment with help, observe changes over time

Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them (identifying and classifying)

Experience different types of science enquiries, including practical activities

With guidance, they should begin to notice patterns and relationships

Year 2

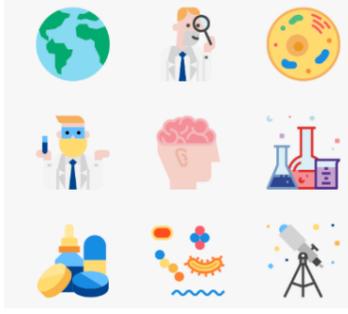
Use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data

Record simple data

Use their observations and ideas to suggest answers to questions

Talk about what they have found out and how they found it out

With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language



Ask people questions and use simple secondary sources to find answers

Year 4

Year 3

Set up simple practical enquiries, comparative and fair tests and recognise when a fair test is necessary.

Raise their own relevant questions about the world around them

Begin to recognise different ways in which they might answer scientific questions

Help to make decisions about what observations to make, how long to make them for and the type of simple equipment

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

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

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

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use straightforward scientific evidence to answer questions or to support findings.

ask relevant questions and use different types of scientific en-

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

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



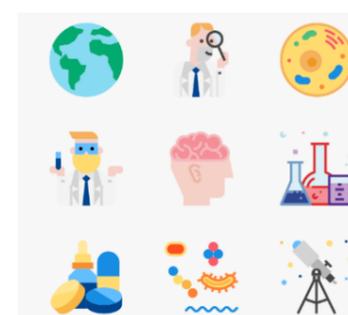
identify differences, similarities or changes related to simple scientific ideas and processes.

Look for naturally occurring patterns and relationships and decide what data to collect to identify them

Talk about criteria for grouping, sorting and classifying and use simple keys.

Start to make own decisions about the most appropriate type of scientific enquiry they might use to answer a question.

Year 5 Year 6



Use their science experiences to explore ideas and raise different kinds of questions

Select and plan the most appropriate type of scientific enquiry to use to answer scientific questions

Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why

Make their own decisions about what observations to make, what measurements to use and how long to make them for



Look for different causal relationships in their data and identify evidence that refutes or supports their ideas

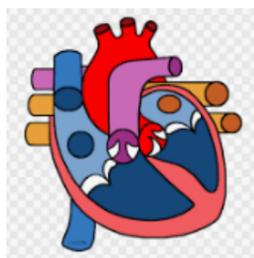
Decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

Choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. Take repeat measurements where appropriate.

Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas, use oral and written forms such as displays and other presentations to report conclusions, causal relationships and explanations of degree of trust in results

Use their results to make predictions and identify when further observations, comparative and fair tests might be needed

Recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact



Use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be

Talk about how scientific ideas have developed over time

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