

# What do you know? Science



Year 5

## Working Scientifically

I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.

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I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

I can 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.

I can use test results to make predictions to set up further comparative and fair tests.

## Separating Mixtures

I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution

I can use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

## Physical and chemical changes

I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution

I can use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating

I can demonstrate that dissolving, mixing and changes of state are reversible changes

I can explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

## Reproductive Cycles

I can describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird

I can describe the life process of reproduction in some plants and animals.

I can describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro- organisms, plants and animals

I can give reasons for classifying plants and animals based on specific characteristics

## Notable scientists

I can identify how sounds are made, associating some of them with something vibrating

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| I can identify common appliances that run on electricity                                                                                                      |
| I can recognise that environments can change and that this can sometimes pose dangers to living things.                                                       |
| I can recognise that soils are made from rocks and organic matter.                                                                                            |
| I can explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant |
| Forces                                                                                                                                                        |
| I can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object                 |
| I can identify the effects of air resistance, water resistance and friction, that act between moving surfaces                                                 |
| I can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.                                    |
| Space                                                                                                                                                         |
| I can describe the movement of the Earth, and other planets, relative to the Sun in the solar system                                                          |
| I can describe the movement of the Moon relative to the Earth                                                                                                 |
| I can describe the Sun, Earth and Moon as approximately spherical bodies                                                                                      |
| I can use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.                                      |