Science Assessment Guidance

Statements highlighted in yellow refer to our end of key stage 'pupil can' assessment statements.

Year 6 Science Assessment Record

To judge that a pupil is working at the expected standard in science, teachers need to have evidence which demonstrates that the pupil meets **all** of the 'working scientifically' statements and **all** of the 'science content' taught in the final year of the key stage. Where possible, teachers should draw on assessments that have been made earlier in the key stage to make their judgement against this framework.

Working Scientifically: working at the expected standard (end of KS2 descriptors)
describe and evaluate their own and other people's scientific ideas related to topics in the national curriculum (including ideas that have changed over time), using evidence from a range of sources
ask their own questions about the scientific phenomena they are studying, and select and plan the most appropriate ways to answer these questions, or those of others, recognising and controlling variables where necessary - including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests, and finding things out using a wide range of secondary sources of information.
use a range of scientific equipment to take accurate and precise measurements or readings, with repeat readings where appropriate
record data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
draw conclusions in different forms, and raise further questions that could be investigated, based on their data and observations
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Science Content: working at the expected standard (end of KS2 descriptors)
name and describe the functions of the main parts of the musculoskeletal system in animals (Y3 Animals)
name and describe the functions of the main parts of the digestive system in animals (Y4 Animals)
describe and compare different reproductive processes and life cycles in animals (Y5 Living Things)
name and describe the functions of the main parts of the circulatory system in animals (Y6 Animals)
describe the effects of diet, exercise, drugs and lifestyle on how the bodies functions (Y6 Animals)
name, locate and describe the functions of the main parts of plants, including those involved in reproduction and transporting water and nutrients (Y3 Plants / Y5 Living Things)
use the observable features of plants, animals and micro-organisms to group, classify and identify them into broad groups, using keys or other methods (Y6 Living Things)
construct and interpret food chains (Y4 Animals)
explain how environmental changes may have an impact on living things (Y4 Living Things)
use the basic ideas of inheritance, variation and adaptation to describe how living things have changed over time and evolved; and describe how fossils are formed and provide evidence for evolution (Y6 Evolution)
group and identify materials, including rocks, in different ways according to their properties, based on first-hand observation; and justify the use of different everyday materials for different uses, based on their properties (Y3 Rocks / Y5 Materials)
describe the characteristics of different states of matter and group materials on this basis; and can describe how materials change state at different temperatures, using this to explain everyday phenomena, including the water cycle (Y4 States of Matter)
identify, and describe what happens when dissolving occurs in everyday situations; and describe how to separate mixtures and solutions into their components (Y5 Materials)
identify, with reasons, whether changes in materials are reversible or not (Y5 Materials)
use the idea that light from light sources, or reflected light, travels in straight lines and enters our eyes to explain how we see objects, and the formation, shape and size of shadows (Y6 Light)
use the idea that sounds are associated with vibrations, and that they require a medium to travel through, to explain how sounds are made and heard. (Y4 Sound)
describe the relationship between the pitch of a sound and the features of its source; and between the volume of a sound, the strength of the vibrations and the distance from its source (Y4 Sound)
describe the effects of simple forces that involve contact (air and water resistance, friction), that act at a distance (magnetic forces, including those between like and unlike magnetic poles; and gravity) (Y3 Forces & Magnets / Y5 Forces)
identify simple mechanisms, including levers, gears and pulleys that increase the effect of a force (Y5 Forces)
use simple apparatus to construct and control a series circuit, and describe how the circuit may be affected when changes are made to it; and use recognised symbols to represent simple series circuit diagrams (Y6 Electricity)
describe the shapes and relative movements of the Sun, Moon, Earth and other planets in the solar system; and explain the apparent movement of the Sun across the sky in terms of the Earth's rotation and that this results in day and night (Y5 Earth & Space)