Changes to the Science Curriculum: Year 3

At a glance

How does the new curriculum compare to the QCA Schemes of Work (2000)?

What's gone?	What's been added?
• Functions/care of teeth • Human life processes • Grouping materials by properties • Opposing forces	• Skeletons & muscles in humans • Flowers as part of the plant life cycle • Fossils • Soils as rocks + organic matter • Light reflected off surfaces

In detail

This section displays the objectives of the old National Curriculum organised according to the QCA units published from 2000 against the new objectives in the 2014 Primary Curriculum

Red indicates no longer required in Y3; purple content has been moved to Y2; green content is new to Year 3

Scientific Investigation	
that science is about thinking creatively to try to explain how living and non-living things work, and to establish links between causes and effects	Not explicitly mentioned
that it is important to test ideas using evidence from observation and measurement	"using straightforward scientific evidence to answer questions or to support their findings"
ask questions that can be investigated scientifically and decide how to find answers	"asking relevant questions and using different types of scientific enquiries to answer them"
consider what sources of information, including first-hand experience and a range of other sources, they will use to answer questions	"using straightforward scientific evidence to answer questions or to support their findings"
think about what might happen or try things out when deciding what to do, what kind of evidence to collect, and what equipment and materials to use	"setting up simple practical enquiries, comparative and fair tests"
make a fair test or comparison by changing one factor and observing or measuring the effect while keeping other factors the same	"setting up simple practical enquiries, comparative and fair tests"
use simple equipment and materials appropriately and take action to control risks	"making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers"
make systematic observations and measurements, including the use of ICT for datalogging	
check observations and measurements by repeating them where appropriate	Not explicitly mentioned
use a wide range of methods, including diagrams, drawings, tables, bar charts, line graphs and ICT, to communicate data in an appropriate and systematic manner	"recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables"
make comparisons and identify simple patterns or associations in their own observations and measurements or other data	" identifying differences, similarities or changes related to simple scientific ideas and processes"
use observations, measurements or other data to draw conclusions	"gathering, recording, classifying and presenting data in a variety of ways to help in answering questions"
decide whether these conclusions agree with any prediction made and/or whether they enable further predictions to be made	"using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions"
use their scientific knowledge and understanding to explain observations, measurements or other data or conclusions	"reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions"
review their work and the work of others and describe its significance and limitations	Not explicitly mentioned

Biology 1: Teeth & Eating	
about the functions and care of teeth	Moved to Year 4
about the need for food for activity and growth, and about the importance of an adequate and varied diet for health	"identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat"
	identify that humans and some other animals have skeletons and muscles for support, protection and movement.

Biology 2: Helping Plants Grow Well	
that the life processes common to humans and other animals include nutrition, movement, growth and reproduction	"explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal"
the effect of light, air, water and temperature on plant growth	"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"
the role of the leaf in producing new material for growth	"identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers"
that the root anchors the plant, and that water and minerals are taken in through the root and transported through the stem to other parts of the plant	" investigate the way in which water is transported within plants"

Chemistry 1: Characteristics of Materials	
to compare everyday materials and objects on the basis of their material properties, including hardness, strength, flexibility and magnetic behaviour, and to relate these properties to everyday uses of the materials	Covered in Y5

Chemistry 2: Rocks and Soils	
to describe and group rocks and soils on the basis of their characteristics, including appearance, texture and permeability	"compare and group together different kinds of rocks on the basis of their appearance and simple physical properties"
	"describe in simple terms how fossils are formed when things that have lived are trapped within rock"
	"recognise that soils are made from rocks and organic matter."

Physics 1: Magnets & Springs	
about the forces of attraction and repulsion between magnets, and about the forces of attraction between magnets and magnetic materials	"notice that some forces need contact between 2 objects, but magnetic forces can act at a distance" "observe how magnets attract or repel each other and attract some materials and not others" "compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials" "describe magnets as having 2 poles" "predict whether 2 magnets will attract or repel each other, depending on which poles are facing."
that when objects are pushed or pulled, an opposing pull or push can be felt	Not explicitly mentioned in PoS

Physics 2: Light & Shadows	
that light travels from a source	Implied by other statements
that light cannot pass through some materials, and how this leads to the formation of shadows	"recognise that shadows are formed when the light from a light source is blocked by a solid object"
how the position of the Sun appears to change during the day, and how shadows change as this happens	"find patterns in the way that the size of shadows change."
Moved up from KS1	"recognise that they need light in order to see things and that dark is the absence of light"
	"notice that light is reflected from surfaces"

	“recognise that light from the sun can be dangerous and that there are ways to protect their eyes”

Additional Content	
	compare how things move on different surfaces