

# Science

This chapter provides 20 lessons based on the Year 3 units in the QCA Schemes of Work for science. A number of key objectives from each unit have been deliberately chosen where the use of an interactive whiteboard will particularly aid and enhance the teaching of those objectives.

The lessons and associated Notebook files are designed to encourage the whole class to discuss and demonstrate ideas, plan investigations effectively, record and evaluate results and make substantiated conclusions. In this way, many of the lessons will actively support you in teaching and evaluating key scientific enquiry skills (Sc1 National Curriculum). The flipcharts are also designed to enhance the children's ICT skills, such as creating and manipulating objects on screen, using writing and drawing tools, and entering data into tables and spreadsheets.

Lesson title	Objectives	Expected prior knowledge	Cross-curricular links
Lesson 1: Varied and balanced diets 	<b>QCA Unit 3A 'Teeth and eating'</b> • To understand that an adequate and varied diet is needed to keep healthy.	<ul style="list-style-type: none"> <li>• That we need to eat and drink to stay alive.</li> <li>• That we eat different kinds of food.</li> <li>• That sometimes we eat a lot of some foods and not very much of others.</li> </ul>	<b>PSHE</b> PoS (3a) What makes a healthy lifestyle, including the benefits of exercise and healthy eating. <b>Design and technology</b> PoS (2d) To measure, mark out, cut and shape a range of materials, and assemble, join and combine components and materials accurately.
Lesson 2: Animal diets 	<b>QCA Unit 3A 'Teeth and eating'</b> • To understand that different animals have different diets. • To raise questions about the diet of different pets. • To turn ideas about the diet of animals into a form that can be investigated. • To decide how many animals should be investigated and the range of foods to be considered. • To present evidence about the foods eaten by animals in a suitable bar chart or pictogram.	<ul style="list-style-type: none"> <li>• That the term <i>animal</i> includes humans.</li> <li>• That animals reproduce and change as they grow older.</li> <li>• That babies and children need to be looked after while they are growing.</li> <li>• How to draw a conclusion and to say what they found out.</li> </ul>	<b>Mathematics</b> Handling data: Answer a question by collecting, organising and interpreting data; use tally charts, frequency tables and bar charts to illustrate observations. <b>ICT</b> PoS (3a) How to share and exchange information in a variety of forms, including email.
Lesson 3: Healthy teeth and gums 	<b>QCA Unit 3A 'Teeth and eating'</b> • To understand that healthy teeth need healthy gums. • To know that some foods can be damaging to our teeth.	<ul style="list-style-type: none"> <li>• That humans have bodies with similar parts.</li> <li>• That humans need water and food to stay alive</li> <li>• That sometimes we eat a lot of some foods and not very much of others.</li> </ul>	<b>PSHE</b> PoS (3a) What makes a healthy lifestyle, including the benefits of exercise and healthy eating, what affects mental health, and how to make informed choices. <b>Design and technology</b> PoS (2d) To measure, mark out, cut and shape a range of materials, and assemble, join and combine components and materials accurately.
Lesson 4: Growth investigation: Leaves 	<b>QCA Unit 3B 'Helping plants grow well'</b> • To make careful observations and measurements of plants growing. • To use simple apparatus to measure the height of plants in standard measures. • To use results to draw conclusions. • To understand that plants need leaves in order to grow well.	<ul style="list-style-type: none"> <li>• How to make and record observations and to make simple comparisons.</li> <li>• To recognise when a comparison is unfair.</li> <li>• How to use what happened to draw a conclusion and to say what they found out.</li> <li>• That plants grow.</li> <li>• That plants have leaves, stems and flowers.</li> </ul>	<b>ICT</b> PoS (2a) How to develop and refine ideas by bringing together, organising and reorganising text, tables, images and sound as appropriate. <b>Art and design</b> PoS (2a) To investigate and combine visual and tactile qualities of materials and processes and to match these qualities to the purpose of the work.
Lesson 5: Growth investigation: Water 	<b>QCA Unit 3B 'Helping plants grow well'</b> • To know that plants need water, but not unlimited water, for healthy growth. • To use simple apparatus to measure a volume of water correctly. • To use simple apparatus to measure the height of the plant.	<ul style="list-style-type: none"> <li>• How to make and record observations and to make simple comparisons.</li> <li>• To recognise when a comparison is unfair.</li> <li>• That plants have roots.</li> <li>• That plants need water to grow.</li> </ul>	<b>Mathematics</b> Measuring: Choose and use appropriate units to estimate, measure and record measurements; read to the nearest division scales that are numbered. <b>ICT</b> PoS (2a) How to develop and refine ideas by bringing together, organising and reorganising text, tables, images and sound as appropriate.