



# KS3 Science: Biology

## Contents

### Contents summary

<b>Mini quizzes:</b>	<b>40</b>
<b>Super quizzes:</b>	<b>4</b>
<b>Extension quizzes:</b>	<b>4</b>
<b>Skills quizzes:</b>	<b>6</b>
<b>TOTAL</b>	<b>54</b>

#### What are MyWorks quizzes?

MyWorks quizzes are short individual learning tasks that can be set as homework or as a lesson task. There are four different types of quiz in KS3 Science.

#### Mini quizzes

Mini quizzes are short, versatile quizzes suitable for most abilities. Each quiz is worth 25 marks and takes around 10 minutes to complete. They cover small, bite-sized topics equivalent to around one lesson's work, and contain recap pages to remind students of the key points if they are struggling. Each quiz matches a small section from one of the Boardworks KS3 Science PowerPoint presentations, but can also be used independently of other products.

#### Super quizzes

Super quizzes are longer tests that are ideal for revision or assessment at the end of a larger unit of work. They are worth 50 marks and do not contain recap pages.

#### Extension quizzes

Extension quizzes are designed to stretch more able students. They either extend a previously covered topic by asking more difficult questions, or cover a new, but related topic. Questions are often more contextualised and require a greater degree of precision in finding the correct answer. The quizzes are out of 25 marks and include recap pages to explain where students may have gone wrong.

#### Skills quizzes

Skills quizzes are designed to cover important elements of the How Science Works requirements at KS3. The quizzes focus on three key areas: practical skills, data analysis and discoveries and society. Topics covered include planning and carrying out a fair, accurate and reliable experiment, representing results, drawing conclusions and the impact of science on society. The quizzes are out of 30 marks and contain recap pages to reinforce understanding.



# KS3 Science: Biology

## Contents

Mini Quizzes	<b>Quiz</b>	<b>Contents</b>	<b>Relevant Boardworks PowerPoint</b>
	<b>Cells mini quiz</b>	<ul style="list-style-type: none"> <li>• What cells are</li> <li>• The main features of animal and plant cells</li> </ul>	<b>Cells</b>
	<b>Looking at cells mini quiz</b>	<ul style="list-style-type: none"> <li>• How to collect cells and prepare microscope slides</li> <li>• How to use a microscope</li> </ul>	<b>Cells</b>
	<b>Cells as building blocks mini quiz</b>	<ul style="list-style-type: none"> <li>• Organization of cells into tissues, organs and systems</li> <li>• Why the body needs new cells</li> <li>• The process of cell division</li> </ul>	<b>Cells</b>
	<b>Respiration reaction mini quiz</b>	<ul style="list-style-type: none"> <li>• What respiration is</li> <li>• Testing for products of respiration</li> <li>• Body systems involved in respiration</li> </ul>	<b>Respiration</b>
	<b>The circulatory system mini quiz</b>	<ul style="list-style-type: none"> <li>• The structure and function of the circulation system</li> <li>• The development of knowledge about the heart</li> <li>• How to measure the pulse</li> </ul>	<b>Respiration</b>
	<b>The breathing system mini quiz</b>	<ul style="list-style-type: none"> <li>• The main features of the process of breathing</li> <li>• The parts of the body which make up the breathing system</li> </ul>	<b>Respiration</b>
	<b>Anaerobic respiration mini quiz</b>	<ul style="list-style-type: none"> <li>• What anaerobic respiration is</li> <li>• Why anaerobic respiration occurs</li> <li>• The breakdown of lactic acid</li> </ul>	<b>Respiration</b>
	<b>Human sex cells and systems mini quiz</b>	<ul style="list-style-type: none"> <li>• What human reproduction is</li> <li>• The structure of the female and male reproductive systems</li> <li>• The structure of human sex cells</li> </ul>	<b>Human Reproduction</b>
	<b>Contraception and disease mini quiz</b>	<ul style="list-style-type: none"> <li>• Types of contraception</li> <li>• Advantages and disadvantages of different types of contraception</li> <li>• Sexually transmitted infections and their symptoms</li> </ul>	<b>Human Reproduction</b>
<b>Fertilization to birth mini quiz</b>	<ul style="list-style-type: none"> <li>• What fertilization and implantation are</li> <li>• Stages in embryo development</li> <li>• The process of birth</li> </ul>	<b>Human Reproduction</b>	

Mini Quizzes	Quiz	Contents	Relevant Boardworks PowerPoint
	<b>Puberty mini quiz</b>	<ul style="list-style-type: none"> <li>• What happens to males and females during puberty</li> <li>• The menstrual cycle</li> </ul>	<i>Human Reproduction</i>
	<b>What are microbes? mini quiz</b>	<ul style="list-style-type: none"> <li>• What a microbe is</li> <li>• The different types of microbes and their characteristics</li> </ul>	<i>Microbes and Disease</i>
	<b>Uses of microbes mini quiz</b>	<ul style="list-style-type: none"> <li>• The production of food by microbes</li> <li>• Microbial respiration</li> </ul>	<i>Microbes and Disease</i>
	<b>How microbes cause disease mini quiz</b>	<ul style="list-style-type: none"> <li>• How microbes enter the body</li> <li>• Transmission of disease</li> <li>• The body's defences against microbes</li> </ul>	<i>Microbes and Disease</i>
	<b>Fighting disease mini quiz</b>	<ul style="list-style-type: none"> <li>• Preventing the spread of disease</li> <li>• The use of antibiotics</li> <li>• The development of vaccination</li> </ul>	<i>Microbes and Disease</i>
	<b>A balanced diet mini quiz</b>	<ul style="list-style-type: none"> <li>• What a balanced diet is</li> <li>• Types of nutrients</li> <li>• Diseases resulting from an unbalanced diet</li> </ul>	<i>Diet and Fitness</i>
	<b>Digestion mini quiz</b>	<ul style="list-style-type: none"> <li>• The digestive system</li> <li>• Enzymes involved in digestion</li> </ul>	<i>Diet and Fitness</i>
	<b>Fitness mini quiz</b>	<ul style="list-style-type: none"> <li>• What fitness is</li> <li>• Factors affecting fitness</li> <li>• Maintaining fitness</li> <li>• Types of joint</li> </ul>	<i>Diet and fitness</i>
	<b>What is a drug? mini quiz</b>	<ul style="list-style-type: none"> <li>• What a drug is</li> <li>• Classification of drugs</li> <li>• How drugs affect the body</li> </ul>	<i>Drugs</i>
	<b>Smoking mini quiz</b>	<ul style="list-style-type: none"> <li>• The chemicals in cigarette smoke</li> <li>• The effects of smoking tobacco</li> <li>• The effects of smoking cannabis</li> </ul>	<i>Drugs</i>
	<b>Alcohol mini quiz</b>	<ul style="list-style-type: none"> <li>• What is alcohol?</li> <li>• The effects of alcohol</li> <li>• Alcohol and the law</li> </ul>	<i>Drugs</i>
	<b>Nerves and hormones mini quiz</b>	<ul style="list-style-type: none"> <li>• Internal and external stimuli</li> <li>• The nervous system</li> <li>• The hormone system</li> </ul>	<i>Human Behaviour</i>
	<b>Types of human behaviour mini quiz</b>	<ul style="list-style-type: none"> <li>• Innate and learned behaviour</li> <li>• The fight or flight response</li> <li>• Diseases affecting the brain</li> </ul>	<i>Human Behaviour</i>
	<b>Photosynthesis mini quiz</b>	<ul style="list-style-type: none"> <li>• What photosynthesis is</li> <li>• How photosynthesis works</li> <li>• Photosynthesis and the atmosphere</li> </ul>	<i>Plants and Photosynthesis</i>

Mini Quizzes	<b>Quiz</b>	<b>Contents</b>	<b>Relevant Boardworks PowerPoint</b>
	<b>Leaves and roots mini quiz</b>	<ul style="list-style-type: none"> <li>• Adaptations of leaves</li> <li>• The structure of the leaf</li> <li>• Testing for starch</li> <li>• Adaptations of roots</li> </ul>	<i><b>Plants and Photosynthesis</b></i>
	<b>Growing and using plants mini quiz</b>	<ul style="list-style-type: none"> <li>• Food from plants</li> <li>• Healthy plant growth</li> <li>• Chemicals used in plant growth</li> <li>• Organic farming</li> </ul>	<i><b>Plants and Photosynthesis</b></i>
	<b>Classifying organisms mini quiz</b>	<ul style="list-style-type: none"> <li>• Why scientists classify organisms</li> <li>• How animals are classified</li> <li>• The features of classification groups</li> <li>• How plants are classified</li> </ul>	<i><b>Variation</b></i>
	<b>Types of variation mini quiz</b>	<ul style="list-style-type: none"> <li>• What variation is</li> <li>• Inherited and environmental variation</li> <li>• Continuous and discontinuous variation</li> </ul>	<i><b>Variation</b></i>
	<b>Causes of variation mini quiz</b>	<ul style="list-style-type: none"> <li>• How inherited characteristics are passed on</li> <li>• The location of genetic information</li> <li>• The production of identical and non-identical twins</li> </ul>	<i><b>Variation</b></i>
	<b>Improving organisms mini quiz</b>	<ul style="list-style-type: none"> <li>• Selective breeding of animals and plants</li> <li>• Advantages and disadvantages of genetic engineering</li> </ul>	<i><b>Variation</b></i>
	<b>Habitats mini quiz</b>	<ul style="list-style-type: none"> <li>• What a habitat is</li> <li>• Land and water habitats</li> <li>• Sampling methods</li> </ul>	<i><b>Ecosystems</b></i>
	<b>Adaptations mini quiz</b>	<ul style="list-style-type: none"> <li>• What adaptations are</li> <li>• Adaptations of organisms in different habitats</li> <li>• Adaptations of organisms in similar habitats</li> <li>• Daily and yearly adaptations</li> </ul>	<i><b>Ecosystems</b></i>
	<b>Environmental change mini quiz</b>	<ul style="list-style-type: none"> <li>• Effects of environmental change on organisms</li> <li>• What global warming is and its effects</li> </ul>	<i><b>Ecosystems</b></i>
	<b>Feeding mini quiz</b>	<ul style="list-style-type: none"> <li>• Feeding types</li> <li>• Predator-prey relationships</li> <li>• Predator-prey population changes</li> </ul>	<i><b>Feeding relationships</b></i>
	<b>Food chains mini quiz</b>	<ul style="list-style-type: none"> <li>• What a food chain is</li> <li>• How to draw and use a food chain</li> <li>• Feeding types in a food chain</li> </ul>	<i><b>Feeding Relationships</b></i>
<b>Food webs mini quiz</b>	<ul style="list-style-type: none"> <li>• The advantages of food webs</li> <li>• The effect of changes in food webs</li> </ul>	<i><b>Feeding Relationships</b></i>	

Mini Quizzes	<b>Quiz</b>	<b>Contents</b>	<b>Relevant Boardworks PowerPoint</b>
	<b>Biomass mini quiz</b>	<ul style="list-style-type: none"> <li>• What biomass is</li> <li>• Representing food chains by pyramids of number</li> <li>• Representing food chains by pyramids of biomass</li> </ul>	<i><b>Feeding Relationships</b></i>
	<b>Types of animal behaviour mini quiz</b>	<ul style="list-style-type: none"> <li>• What is animal behaviour?</li> <li>• Internal and external stimuli</li> <li>• Types of animal behaviour</li> </ul>	<i><b>Animal Behaviour</b></i>
	<b>Investigating animal behaviour mini quiz</b>	<ul style="list-style-type: none"> <li>• Innate behaviour of herring gulls</li> <li>• Pavlov's dog experiment</li> <li>• Working with choice chambers</li> </ul>	<i><b>Animal Behaviour</b></i>
	<b>Animal testing mini quiz</b>	<ul style="list-style-type: none"> <li>• What animal testing is</li> <li>• How animals are used in the UK</li> <li>• The future of animal testing</li> </ul>	<i><b>Biology Around Us</b></i>



<b>Super Quizzes</b>	<b>Quiz</b>	<b>Contents</b>	<b>Relevant Boardworks PowerPoint</b>
	<p><b>Cells and reproduction super quiz</b></p>	<ul style="list-style-type: none"> <li>• Animal and plant cells</li> <li>• How the body is organized</li> <li>• Human sex cells and systems</li> <li>• Contraception and sexually transmitted infections</li> <li>• Human development</li> </ul>	<p><i><b>Cells, Human Reproduction</b></i></p>
	<p><b>Respiration, diet and fitness super quiz</b></p>	<ul style="list-style-type: none"> <li>• The digestive system</li> <li>• A balanced diet</li> <li>• Fitness and exercise</li> <li>• Aerobic and anaerobic respiration</li> <li>• The breathing system</li> </ul>	<p><i><b>Respiration, Diet and Fitness</b></i></p>
	<p><b>Microbes, disease and drugs super quiz</b></p>	<ul style="list-style-type: none"> <li>• Types of microbes</li> <li>• Uses of microbes in the food and drink industry</li> <li>• How microbes cause disease and how the body defends itself</li> <li>• How smoking and alcohol affect our health</li> </ul>	<p><i><b>Microbes and Disease, Drugs</b></i></p>
	<p><b>Variation, ecosystems and feeding super quiz</b></p>	<ul style="list-style-type: none"> <li>• How organisms are classified</li> <li>• Types of variation</li> <li>• What selective breeding and genetic modification are</li> <li>• Types of habitat and how animals are adapted to survive in them</li> <li>• How climate change affects the environment</li> <li>• Pyramids of numbers and biomass</li> </ul>	<p><i><b>Variation, Ecosystems, Feeding relationships</b></i></p>



Skills Quizzes	<b>Quiz</b>	<b>Contents</b>
	<b>Biology practical skills quiz 1</b>	<ul style="list-style-type: none"> <li>• Using a microscope</li> <li>• Planning basic experiments</li> <li>• Controlling variables</li> </ul>
	<b>Biology practical skills quiz 2</b>	<ul style="list-style-type: none"> <li>• Sampling methods</li> <li>• Classifying organisms</li> <li>• Performing basic experiments</li> </ul>
	<b>Biology data analysis skills quiz 1</b>	<ul style="list-style-type: none"> <li>• Producing and interpreting graphs</li> <li>• Drawing conclusions</li> </ul>
	<b>Biology data analysis skills quiz 2</b>	<ul style="list-style-type: none"> <li>• Interpreting graphs</li> <li>• Plotting graphs</li> <li>• Drawing conclusions</li> </ul>
	<b>Discoveries in biology skills quiz</b>	<ul style="list-style-type: none"> <li>• Important discoveries in biology</li> </ul>
	<b>Biology in society skills quiz</b>	<ul style="list-style-type: none"> <li>• Ethical and social issues in biology</li> </ul>



Extension Quizzes	Quiz	Contents
	<b>Breathing and respiration extension quiz</b>	<ul style="list-style-type: none"> <li>• What happens when we inhale and exhale</li> <li>• The respiration reaction</li> <li>• The effect of smoking on breathing and respiration</li> </ul>
	<b>Digestion extension quiz</b>	<ul style="list-style-type: none"> <li>• The processes that occur in the digestive system</li> <li>• Enzyme digestion and its products</li> <li>• The small intestine and its absorption of digestion products</li> </ul>
	<b>Reproduction extension quiz</b>	<ul style="list-style-type: none"> <li>• Changes taking place during puberty</li> <li>• Male and female reproductive systems</li> <li>• Fertilization and fetal development</li> <li>• Identical and non-identical twins.</li> </ul>
	<b>Ecological relationships extension quiz</b>	<ul style="list-style-type: none"> <li>• Feeding relationships</li> <li>• Representing food chains</li> <li>• Factors in population changes</li> <li>• Bioaccumulation</li> </ul>