

Long Term Plan Science 2025-2026 Green

Year	HT1 7 weeks	HT 2 7 weeks	HT 3 6 weeks	HT 4 6 weeks	HT 5 6 weeks	HT 6 8 weeks
KS3 Green	Using Science to Investigate the World	Lifestyles	Plants and Wildlife	Introduction to chemicals in the world around us	Energy and life	Scientists through time
	1 Understand the scientific method	1 Understand the basic components of a healthy lifestyle.	1 Identify common British plants and wildlife	1 Understand basic chemical concepts.	1 Understand the concept of energy and its importance	1 Introduction to key scientific figures and their impact
	2 Explore types of scientific evidence	2 Explore the human skeletal system.	2 Understand how plants create their food through photosynthesis	2 Learn to read labels on medicine.	2 Explore the sources of energy	2 Understanding key principles of the scientific revolution
	3 Learn about variables in scientific research	3 Learn about muscular system.	3 Identify the parts of a plant involved in food creation	3 Explore Elements in the Periodic Table.	3 Investigate how energy is transformed	3 Explore the laws of motion
	4 Design a simple experiment	4 Investigate the cardiovascular system.	4 Explore the importance of light in photosynthesis	4 Chemical Mixtures and Solutions.	4 Understanding clean energy concepts	4 Discovery of electricity
	5 Conduct the experiment	5 Discuss respiratory health.	5 Investigate the necessity of water and carbon dioxide in photosynthesis	5 Chemical reactions basics.	5 Explore how energy is produced from different resources	5 Development of evolutionary theory
	6 Analyse experimental data	6 Examine the impact of exercise on health.	6 Learn how plants reproduce asexually	6 Safe use of Chemicals in the Lab.	6 Examine how energy is transmitted to our homes	6 Germ theory and public health
	7 Understand the concept of scientific theories	7 Analyse the importance of a balanced diet.	7 Explore sexual reproduction in plants	7 Household Chemicals and their uses.	7 Understand the electrical grid system	7 Understanding radioactivity
	8 Evaluate scientific research	8 Sexual reproduction?.	8 Conduct an experiment to show flowers change colour with coloured water	8 Acids and Bases in Everyday Items.	8 Investigate energy consumption and efficiency	8 The structure of the atom
	9 Discuss the impact of science on society	9 Learn about the nervous system.	9 Understand adaptations plants have made to their environments	9 How chemicals affect the environment.	9 Learn to calculate power using watts	9 Unravelling DNA and genetics
	10 Discover famous scientists and their contributions	10 Investigate hormonal balance and health (sexual education) + mental health.	10 Utilise information from reputable sources to reinforce learning	10 Chemicals in Food.	10 Understand kilowatt-hours and energy billing	10 Visionary theoretical physics
	11 Develop a scientific argument	11 Understanding health information (contraception focus).	11 Recap on plant structure and function	11 The Myth of "Chemical-Free".	11 Evaluate the environmental impact of different energy types	11 Modern contributions to computer science
	12 Catch up lesson - Reflect on the learning and understand next steps	12 Catch up lesson	12 Assessment and feedback	12 Review and Assessment.	12 Design a clean energy plan for a community	12 Review and Reflection

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Y10 GCSE Biology	Cell Biology	Organisation	Homeostasis and Response continued	Inheritance, variation and evolution	Biodiversity	Selective breeding
	<ol style="list-style-type: none"> Eukaryotes and prokaryotes Animal and plant cells Measurement units Cell specialisation, Cell differentiation and Stem cells Chromosome Using models Mitosis and the cell cycle Transport in cells – active transport & Osmosis Accuracy vs precision Revision End of unit quiz <p>Require practical - Culturing microorganisms. Required practice – Light microscope investigation.</p> <p>Organisation</p> <ol style="list-style-type: none"> Scientific thinking WS Lesson Principles of organisation The human digestive system Hypotheses and theories WS Lesson 	<ol style="list-style-type: none"> Plant tissues Plant organ systems Science in society WS Lesson Core sciences required practical lesson Revision WS Lesson End of unit quiz <p>Required practical – Testing for carbohydrates, lipids and proteins. Required practical – effect of pH on the rate of reaction of amylase enzymes.</p> <p>Homeostasis and Response</p> <ol style="list-style-type: none"> Human defence systems WS Lesson Vaccinations Antibiotics and painkillers WS Lesson Discovery and development of drugs Detection and identification of plants diseases. WS Lesson Plant defence responses 	<ol style="list-style-type: none"> Control of body temperature Human endocrine system WS Lesson Control of blood concentration. Maintaining water and nitrogen balance in the body. WS Lesson Hormones in human reproduction & Contraception Control and coordination (plant hormones) WS Lesson <p>Practical skills - Planning and carrying out an investigation into the effect of a factor on human reaction time.</p> <p>Bioenergetics</p> <ol style="list-style-type: none"> Photosynthesis reaction & use of glucose from photosynthesis Anaerobic and aerobic respiration & Metabolism Response to exercise 	<ol style="list-style-type: none"> Reproduction & Advantages and disadvantages of sexual and asexual reproduction Meiosis WS Lesson DNA structure and the genome Genetic inheritance WS Lesson Revision Catch up WS Lesson Required practical - Rate of photosynthesis (Investigating the effect of light intensity on the using an aquatic organism.) Inherited disorders & the understanding of genetics Sex determination WS Lesson Communities Abiotic factors & Biotic factors WS Lesson 	<ol style="list-style-type: none"> How materials are cycled Decomposition WS Lesson Practical Revision Biodiversity WS Lesson Waste management Catch up Land use WS Lesson Global Warming Maintaining biodiversity & Deforestation WS Lesson Catch up 	<ol style="list-style-type: none"> Trophic levels & Pyramids of biomass Transfer of biomass WS Lesson Factors affecting food security. Farming techniques & Sustainable fisheries WS Lesson Role of biotechnology Evolution & Theory of evolution & Evidence for evolution WS Lesson Catch up Classification of living organisms WS Lesson Genetic engineering Cloning WS Lesson Speciation & Variation Fossil & Extinction WS Lesson Catch up Ice Cream Practical WS Lesson Digestion practical Periodic Table research task

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	16. The heart and blood vessels 17. Blood 18. Exam Practice Lesson 19. Plant tissues 20. Catch up lesson 21. Kahoot quick recall lesson	Practical Skills - investigating the effect of antiseptics on bacterial growth. 17. Structure and function 18. WS Lesson 19. The brain &The eye	13. WS Lesson 14. Practical 15. Revision & End of unit test 16. Catch Up lesson	17. Adaptations 18. Levels of organisations 19. WS Lesson 20. Catch up Required practical - Measure the population size of a common species in a habitat. Required practical - Investigate the effect of temperature on the rate of decay of fresh milk by measuring pH change..		25. WS Lesson
Y11 GCSE Biology	Introduction to GCSE Biology 1. Cell Biology: Cell structure 2. WS lesson 3. Cell Biology: Microscopy 4. Cell Biology: Culturing 5. WS lesson 6. Microorganisms 7. Cell Biology: Cell Division and Cell Specialisation 8. WS Lesson 9. Cell Biology: Stem Cells 10. Organisation: Human Digestive System 11. WS Lesson	Organisation: Health Issues 1. Organisation: Plant Tissues and Organs 2. WS Lesson 3. Infection and Response: Pathogens 4. Infection and Response: Pathogens 5. WS Lesson 6. Infection and Response: Human 7. Defence Systems 8. WS Lesson 9. Infection and Response: Vaccination and Antibiotics	1. Bioenergetics: Respiration 2. Homeostasis and Response: Introduction and Control Systems in the Body 3. Homeostasis and Response: Introduction and Control Systems in the Body 4. WS Lesson 5. Homeostasis and Response: Introduction and Control Systems in the Body 6. Homeostasis and Response: Nervous System 7. WS Lesson	1. Homeostasis and Response: Plant responses 2. Homeostasis and Response: Plant responses 3. WS Lesson 4. Homeostasis and Response: Plant responses 5. Inheritance, Variation and Evolution: Reproduction and Inheritance 6. WS Lesson 7. Inheritance, Variation and Evolution: Reproduction and Inheritance	1. Inheritance, Variation and Evolution: Classification and Biodiversity 2. Ecology: Ecosystems and Material Cycles 3. WS Lesson 4. Ecology: Ecosystems and Material Cycles 5. Ecology: Ecosystems and Material Cycles 6. WS Lesson	1. Revision and GCSE Preparation 2. Revision and GCSE . Preparation 3. Revision and GCSE Preparation 4. Revision and GCSE Preparation 5. Revision and GCSE Preparation 6. Revision and GCSE Preparation 7. Revision and GCSE Preparation

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	12. Organisation: Human Digestive System 13. Organisation: Enzymes 14. WS Lesson 15. Organisation: Heart and Circulatory System 16. Organisation: Heart and Circulatory System 17. WS Lesson 18. Catch up lessons 19. Catch up lessons 20. WS Lesson 21. Catch up lesson	10. Infection and Response: Vaccination and Antibiotics 11. WS Lesson 12. Infection and Response: Discovery and Development of Drugs 13. Bioenergetics: Photosynthesis 14. WS Lesson 15. Bioenergetics: Photosynthesis 16. Bioenergetics: Photosynthesis 17. WS Lesson 18. Catch up lesson	8. Homeostasis and Response: Nervous System 9. Homeostasis and Response: Hormonal System 10. WS Lesson 11. Homeostasis and Response: Regulation of Blood Glucose 12. Homeostasis and Response: Regulation of Blood Glucose 13. WS Lesson 14. Homeostasis and Response: Regulation of Blood Glucose 15. Homeostasis and Response: Human Reproduction System 16. WS Lesson 17. Homeostasis and Response: Human Reproduction System 18. Homeostasis and Response: Human Reproduction System	8. Inheritance, Variation and Evolution: Reproduction and Inheritance 9. WS Lesson 10. Inheritance, Variation and Evolution: DNA and the Genome 11. Inheritance, Variation and Evolution: Evolution 12. WS Lesson 13. Inheritance, Variation and Evolution: Evolution 14. Inheritance, Variation and Evolution: Evolution 15. WS Lesson 16. Catch up lesson 17. Catch up lesson 18. WS Lesson	7. Ecology: Interactions and Interdependences 8. Ecology: Interactions and Interdependences 9. WS Lesson 10. Ecology: Interactions and Interdependences 11. Ecology: Population and Pollution 12. WS Lesson 13. Ecology: Population and Pollution 14. Ecology: Population and Pollution 15. WS Lesson 16. Ecology: Conservation and Biodiversity 17. Ecology: Conservation and Biodiversity 18. WS Lesson 19. Ecology: Conservation and Biodiversity	8. Revision and GCSE Preparation 9. Revision and GCSE Preparation 10. Revision and GCSE Preparation 11. Revision and GCSE Preparation 12. Revision and GCSE Preparation 13. Revision and GCSE Preparation 14. Revision and GCSE Preparation 15. Revision and GCSE Preparation
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					20. Catch up lesson 21. WS Lesson	
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Half Termly Career Focus

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Green	Politician	Dietician/Nutritionist	Conservationist	Chemist	Engineer(s)	Researcher
Y10	Microbiologist	Doctor	Gynaecologist	Ecologist	Farming	Food Science Careers
Y11	Cardiologist	Research Scientist	Personal Trainer	Animal Breeder	Exam Prep, no specific focus	Exam Prep, no specific focus