

Class 1 Science B

	Key Learning Objectives	Textbook
Week 1	<ul style="list-style-type: none"> -What is science? -Introduce the “Scientific Method”: how scientists develop an idea into a question that can be investigated -Identify independent/ dependent/Control Variables 	Pages 2-3
Week 2	<ul style="list-style-type: none"> -Use of practicals to apply the scientific method 	
Week 3	<ul style="list-style-type: none"> -Introduce data recording -Present data appropriately in tables -Calculate a mean and spread from repeat measurements -Check data for outliers -Practice using different data sets 	Pages 6-7, 10
Week 4	<ul style="list-style-type: none"> -Introduce graphs -Present data appropriately in graphs 	Page 7
Week 5	<ul style="list-style-type: none"> -Guided classwork on graphs - Introduction to forces 	
Week 6	<ul style="list-style-type: none"> -How do we measure forces? -Units -Types of forces 	Pages 14-15 (half page)
Week 7 – 9	Review – Term Test – Feedback	-
Week 10	<ul style="list-style-type: none"> -Force diagrams -Describe the effects of a field 	Page 20
Week 11	<ul style="list-style-type: none"> -Describe the effect of gravitational forces -Mass versus weight -Calculations using the formula 	Page 21
Week 12	<ul style="list-style-type: none"> -Demonstrations and discussion of balanced and unbalanced forces situations -Equilibrium state 	Page 22
Week 13	<ul style="list-style-type: none"> -Introduce the resultant force -Calculation of the resultant force -Identifying equilibrium situations 	
Week 14	<ul style="list-style-type: none"> -Effect of unbalanced forces on speed and direction of motion -Investigating friction/Importance in everyday life 	Pages 18-19, 23

Week 15	-Investigating force and extension of a spring/Hooke's Law	Page 17
Week 16 – 18	Review – Term Test – Feedback	-
Week 19	-What is a wave? -Features of a wave	Page 26
Week 20	-Calculations: amplitude, frequency and wavelength	Page 26
Week 21	-Types of waves: Mechanical versus electromagnetic waves, longitudinal versus transverse waves	Pages 26-27 (half page)
Week 22	-Describe how sound waves are produced and travel -Speed of sound in different materials -Sound versus light waves	Pages 28-29
Week 23	-Loudness, pitch and frequency -Human audible range versus range of hearing in animals	Pages 30-31
Week 24	-Echoes and ultrasound -Uses of ultrasound -Measuring distances	Pages 34-35
Week 25 – 27	Review – Term Test – Feedback	-
Week 28 (time permitting)	-How can you see? -Types of objects depending on how light interacts with them -Describe light waves	Pages 38-39
Week 29 (time permitting)	-Why do we see an image in the mirror? -The law of reflection -Types of reflection -Learn how to draw a reflection ray diagram	Pages 40-41
Week 30 (time permitting)	-Describe refraction of light -Learn how to draw a refraction ray diagram	Pages 42-43 (half page)

Above refers to full teaching weeks – no holidays or other activities.

Typical full academic year for classes 1 – 3 includes 30 teaching and learning weeks.