

Year 8 Science Planning Outline – Spring Term

These are the subjects covered in the Spring Term. The exact timing and order of them may be subject to change.

Area of curriculum	Pupils should be taught
Force and motion (Physics)	<ul style="list-style-type: none"> • how to determine the speed of a moving object and to use the quantitative relationship between speed, distance and time • <i>KS3 Science Revision Guide pages: 81</i>
EXAMS	<ul style="list-style-type: none"> • To gain a greater understanding of expectations in answering CE questions • To understand errors in exam • <i>KS3 Science Revision Guide pages:</i>
Force and motion (Physics)	<ul style="list-style-type: none"> • how to determine the speed of a moving object and to use the quantitative relationship between speed, distance and time • ways in which frictional forces, including air resistance, affect motion [e.g. <i>streamlining cars, friction between tyre and road</i>] • <i>KS3 Science Revision Guide pages: 81, 82, 83</i>
Force and motion (Physics)	<ul style="list-style-type: none"> • that unbalanced forces change the speed or direction of objects and that balanced forces produce no change in the movement of an object • <i>KS3 Science Revision Guide pages: 82, 83</i>
Earth & Beyond – orbits & gravity (Physics)	<ul style="list-style-type: none"> • that the weight of an object on Earth is the result of the gravitational attraction between its mass and that of the Earth • about the movements of planets around the Sun and to relate these to gravitational forces • <i>KS3 Science Revision Guide pages: 95, 96</i>
Earth & Beyond – orbits & gravity (Physics)	<ul style="list-style-type: none"> • the relative positions of the Earth, Sun and planets in the solar system • about the use of artificial satellites and probes to observe the Earth and to explore the solar system. • <i>KS3 Science Revision Guide pages: 96, 97</i>
Earth & Beyond – orbits & gravity (Physics)	<ul style="list-style-type: none"> • that the Sun and other stars are light sources and that the planets and other bodies are seen by reflected light • how the movement of the Earth causes the apparent daily and annual movement of the Sun and other stars • <i>KS3 Science Revision Guide pages: 96, 97</i>
Moments (Physics)	<ul style="list-style-type: none"> • that forces can cause objects to turn about a pivot • the principle of moments and its application to situations involving one pivot • <i>KS3 Science Revision Guide pages: 85</i>
Pressure (Physics)	<ul style="list-style-type: none"> • the quantitative relationship between force, area and pressure and its application [e.g. <i>the use of skis and snowboards, the effect of sharp blades, hydraulic brakes</i>]. • <i>KS3 Science Revision Guide pages: 86</i>
Density (Physics)	<ul style="list-style-type: none"> • how materials can be characterised by density - <i>Measurement of the mass and volume and calculation of the density of regularly shaped solids and of irregularly-shaped solids (using the displacement of water to find the volume) and of liquids will usually be examined in the physics section of the Common Entrance examination. So too will the fact that air has mass and that it is possible to measure its density.</i> • <i>KS3 Science Revision Guide pages: 41, 42, 50, 87</i>