Physics

Note – Lessons are delivered to students earlier or later depending on how much curriculum time you get for Biology, Chemistry and Physics in that particular year. So some students learn about a topic in the Autumn term in one class and other students learn about it in the Spring term. Try to find where you are up to. (Note – all students will receive the exact same amount of curriculum time between Years 7 and 11 by the end of Year 11)

Year 7 Physics Autumn term

Click on the links, read the information and watch the clips. Make brief notes and complete the test your knowledge quizzes.

Unit Title: P7a Forces (Autumn Term)

Introduction to forces - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize

Motion and speed - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize

Representing journeys - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize

Weight and mass - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize

Force diagrams and resultant forces - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize

Friction - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize

Hooke's law - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize

What is gravity guide for KS3 physics students - BBC Bitesize

Year 7 Physics Spring term

Unit Title: P7b Space (Spring Term)

<u>Features of our solar system guide for KS3 physics students - BBC Bitesize</u>
<u>Days, months, years and seasons guide for KS3 physics students - BBC Bitesize</u>
Phases of the Moon - BBC Bitesize

<u>Sun as a star KS3 Physics guide for students - BBC Bitesize</u> Light years guide for KS3 physics students - BBC Bitesize

Year 7 Physics Summer term

Unit Title: P7c Energy (Summer Term)

Energy stores and energy transfers - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize Energy in the home - Energy - KS3 Physics - BBC Bitesize - BBC Bitesize Energy calculations - Energy - KS3 Physics - BBC Bitesize - BBC Bitesize Generating electricity guide for KS3 physics students - BBC Bitesize

Year 8 Physics

Click on the links, read the information and watch the clips. Make brief notes and complete the test your knowledge guizzes.

Unit Title: P8a Waves (Autumn Term)

Features of waves links to energy transfer guide for KS3 physics students - BBC Bitesize

Ray diagrams and transmission of light guide for KS3 physics students - BBC Bitesize

Reflection guide for KS3 physics students - BBC Bitesize

Refraction and lenses guide for KS3 physics students - BBC Bitesize

Visible light and additive mixing of light guide for KS3 physics students - BBC Bitesize

Revise what colour is, which colours the eye sees and the practical uses of colour in photography. -

BBC Bitesize

Introduction to sound waves guide for KS3 physics students - BBC Bitesize

Speed of sound and echoes for KS3 Physics - BBC Bitesize

The human ear and uses of sound waves guide for KS3 physics students - BBC Bitesize

Year 8 Physics Autumn term

Year 8 Physics spring term

Unit Title: P8b Electricity and Magnetism (Spring Term)

What is electricity guide for KS3 physics - BBC Bitesize

Static electricity - BBC Bitesize

Conductors and insulators - KS3 Physics - BBC Bitesize - BBC Bitesize

Introduction to circuits - Electricity - KS3 Physics - BBC Bitesize - BBC Bitesize

Electric current and potential difference guide for KS3 physics students - BBC Bitesize

Series circuits - Electricity - KS3 Physics - BBC Bitesize - BBC Bitesize

Parallel circuits - KS3 Physics - BBC Bitesize - BBC Bitesize

Resistance - KS3 Physics - BBC Bitesize - BBC Bitesize

Magnetism guide for KS3 physics students - BBC Bitesize

Magnets and magnetic materials - BBC Bitesize

<u>Electromagnetism guide for KS3 physics students - BBC Bitesize</u>

Year 8 Physics Summer term

Unit Title: P8b Levers and Moments (Spring/Summer Term)

Moments - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize

<u>Planning an experiment - Working scientifically - KS3 Science - BBC Bitesize - BBC Bitesize</u>

Graphs and charts - Working scientifically - KS3 Science - BBC Bitesize - BBC Bitesize

Maths skills for science - Working scientifically - KS3 Science - BBC Bitesize - BBC Bitesize

Year 9 Physics Autumn term

TASK - Click on the links, read the information and watch the clips. Make brief notes and complete the test your knowledge quizzes.

Unit Title: Conservation and dissipation of energy

<u>Types of energy store - Changes in energy stores - AQA - GCSE Combined Science Revision - AQA</u> Trilogy - BBC Bitesize

Work, power and efficiency - Work, power and efficiency - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

Year 9 Physics Spring term

Unit Title: Energy transfer by heating

<u>Energy and heating - Energy and heating - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC</u> Bitesize

Unit Title: Energy resources

Unit Title: Molecules and Matter

National and global energy demands and resources - Energy demands - AQA - GCSE Combined Science
Revision - AQA Trilogy - BBC Bitesize
Density - Density of materials - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

Multiple choice questions - Sample exam questions - energy - AOA - GCSE Combined Science Revision states of matter - Temperature change and energy - AQA - GCSE Combined Science Revision - AQA - ACA Trilogy - BBC Bitesize Trilogy - BBC Bitesize

<u>Particle motion - Particles in gases - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Multiple choice questions - Sample exam questions - particle model of matter - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

Year 9 Physics Summer term

Unit Title: Wave Properties

<u>Types of waves - Properties of waves - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Longitudinal waves - Transverse and longitudinal waves - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

Reflection of waves - Reflection and refraction - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

Required practical - how different surfaces affect infrared intensity - Infrared radiation absorption and radiation by a surface - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

<u>Multiple choice questions - Sample exam questions - waves - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

Year 10 Physics Autumn term

Unit Title: Electromagnetic waves

<u>Electromagnetic waves - Transverse and longitudinal waves - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Behaviour and uses of electromagnetic waves - Transverse and longitudinal waves - AQA - GCSE</u> Combined Science Revision - AQA Trilogy - BBC Bitesize

<u>Ultraviolet, electromagnetic waves in medicine and ionising radiation - Transverse and longitudinal</u> waves - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

Unit Title: Electrical circuits

<u>Electrical circuit symbols - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Electrical charge and current - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Potential difference and resistance - Electric circuits - AQA - GCSE Combined Science Revision - AQA</u> Trilogy - BBC Bitesize

Required practical - investigate the factors that affect resistance - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

Required practical - investigate current - voltage graphs - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

Series circuits - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

Parallel circuits - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

Required practical - investigate resistor networks - Electric circuits - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

<u>Energy and power in electric circuits - Electric circuits - AQA - GCSE Combined Science Revision - AQA</u> Trilogy - BBC Bitesize

Year 10 Physics Spring term

Unit Title: Electricity in the home

Alternating and direct current - Mains electricity and alternating current - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

<u>Household electricity - Mains electricity and alternating current - AQA - GCSE Combined Science</u> Revision - AQA Trilogy - BBC Bitesize

<u>Electrical appliances - Mains electricity and alternating current - AQA - GCSE Combined Science</u> Revision - AQA Trilogy - BBC Bitesize

Alternating current and the National Grid - Mains electricity and alternating current - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

Unit Title: Electromagnetism

<u>Poles of a magnet - Magnetic fields - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC</u> Bitesize

What is an electromagnet? - Electromagnets and transformers - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

<u>Multiple choice questions - Sample exam questions - magnetism and electromagnetism - AQA - GCSE</u> Combined Science Revision - AQA Trilogy - BBC Bitesize

Year 10 Physics Summer term

Unit Title: Radioactivity

Radioactive decay - Radioactive decay - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

<u>Irradiation - Uses and dangers of radiation - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Multiple choice questions - Sample exam questions - atomic structure - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

Year 11 Physics Autumn term

Unit Title: Forces in balance

<u>Scalar quantities - Scalar and vector quantities - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Contact forces - Contact and non-contact forces - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Gravitational fields - Gravity - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC</u> Bitesize

Unit Title: Motion

<u>Motion in a straight line - Describing motion - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Multiple choice questions - Sample exam questions - forces - AQA - GCSE Combined Science</u> <u>Revision - AQA Trilogy - BBC Bitesize</u>

Year 11 Physics Spring term

Unit Title: Force and motion

<u>Newton's First Law - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Newton's Second Law - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science</u> Revision - AQA Trilogy - BBC Bitesize

Required practical - investigating how force affects acceleration - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

Required practical - investigating how mass affects acceleration - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

<u>Newton's Third Law - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science</u> <u>Revision - AQA Trilogy - BBC Bitesize</u>

Forces and braking - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize

<u>Terminal velocity - Forces, acceleration and Newton's laws - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

<u>Change of shape - Forces and elasticity - AQA - GCSE Combined Science Revision - AQA Trilogy - BBC Bitesize</u>

End of Physics curriculum