

AQA GCSE PHYSICS

Year 11 – Autumn Term

CONTENT:

P9 – Motion and P10 Forces and Motion

In triple Physics this year we'll begin by continuing our study on motion, consolidating our understanding of Newton's fundamental laws and extending it to include momentum, collisions and how science works with technology to keep us safe from the effects of these in the real world. Within these units we'll analyse and interpret both distance-time and velocity-time graphs, and progress from calculating the gradients of straight to curved lines of best fit. Finally, we'll encounter Hooke's Law when studying elasticity.

9.1 Speed and distance-time graphs; 9.2 Velocity and acceleration; 9.3 More about velocity-time graphs; 9.4 Analysing motion graphs.

10.1 Forces and acceleration; 10.2 Weight and terminal velocity; 10.3 Forces and braking; 10.4 Momentum; 10.5 Using conservation of momentum; 10.6 Impact forces; 10.7 Safety first; 10.8 Forces and elasticity

P11 Pressure and surfaces

Here we answer the age-old question of why our stiletto heels always sink into the grass during wedding photos as we investigate the effects of pressure on solids, liquids, and gases. Wave behaviour is common in both natural and man-made systems.

11.1 Pressure and surfaces; 11.2 Pressure in a liquid at rest; 11.3 Atmospheric pressure; 11.4 Upthrust and floatation.

Recommended online resources:

Kerboodle- Digital Textbook – w:kerboodle.com u:initialsurname
p:initialsurname inst.code:yh7 – the individual lesson breakdown is here.

BBC Bitesize: KS4 Science AQA – then find the relevant topics

YOUTUBE: 'GCSESCIENCELESSONS' then search for the topic of interest

Oak National Academy: Lessons available linked to above topics.

Google Classroom: class code details will be released using Class Charts