AQA GCSE Combined Science - PHYSICS

Year 11 – Autumn Term

CONTENT:

P9 – Motion

Engineers analyse forces when designing a great variety of machines and instruments, from road bridges and fairground rides to atomic force microscopes. Anything mechanical can be analysed in this way. Recent developments in artificial limbs use the analysis of forces to make movement possible..

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

P10 Forces and Motion

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

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

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