



Learning Journey Map

Year 11 – Physics Separates



OCR

Oxford Cambridge and RSA

Move on to A level

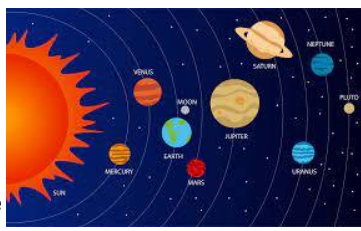
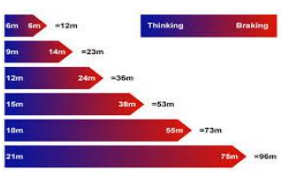


Year 11 Survival Top Tips	
Tip 1	Learn and revise vocabulary weekly, use glossaries given and - Quizlet/Seneca/Educake
Tip 2	Use ' Youtube- e.g. myGCSE, free Science lessons to help review key skills and concepts
Tip 3	Use GCSE Bitesize/Kerboodle resources/past OCR questions
Tip 4	Use the Pixl Resources on Firefly & therapy questions
Tip 5	Read online science news, watch science documentaries

P8 Global challenges:

P8.2 Beyond Earth


- The Big Bang
- Our Solar system
- Satellites & orbits
- Radiation & temperature
- Inside our planet

P8 Global challenges:

P8.1 Physics on the move

- Everyday motion
- Reaction time & thinking distance
- Braking & stopping distance
- Forces in collisions



P8 Global challenges:

P8.2 Powering Earth


- Energy resources
- Using resources in everyday life
- The national grid
- Mains electricity




P7 Energy:

P7.2 Power and Efficiency

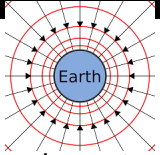
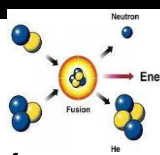
- Energy & power
- Paying for electricity
- Energy in electric current
- Energy in heating
- Walls & insulation
- Efficiency



P7 Energy:

P7.1 Work Done


- Energy stores and energy transfers
- Analysing situations involving constant forces
- Analysing situations involving braking
- Analysing situations involving gravity

P6 Radioactivity:

P6.2 Uses and Hazards

- Radiation and the human body
- Nuclear fission
- Nuclear fusion




P6 Radioactivity:

P6.1 Radioactive emissions

- Atoms and Isotopes
- Alpha, beta and gamma radiation
- Nuclear equations for radiation
- Half-life of radioactive substances
- Radiation in and out of atoms

Alpha (α)

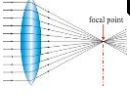

Beta (β)

Gamma (γ)

P5 Waves in matter:

P5.3 Wave interaction


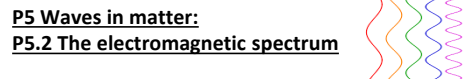
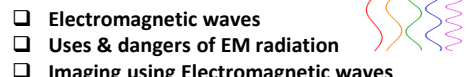

- Electromagnetic waves and matter
- Using lenses
- Light and Colour


P5 Waves in matter:

P5.2 The electromagnetic spectrum

- Electromagnetic waves
- Uses & dangers of EM radiation
- Imaging using Electromagnetic waves

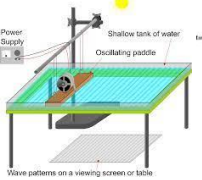
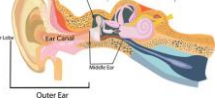





Review of summer learning

P5 Waves in matter:

P5.1 Wave behaviour

- Waves and their properties
- Wave velocity
- PAG- Using a ripple tank to calculate wave velocity
- Sound properties and their uses
- Sounds in solids
- The ear and ultrasound


CURRICULUM OVERVIEW

Development of key scientific skills: planning valid experiments, carrying out practicals safely, displaying & processing data, as well as analysing & evaluating results

Possible careers

Research scientist, materials scientist, seismologist, mechanical engineer, architect, ship designer, theme park ride designer, audiologist, optician, photographer, Electrical engineer, civil engineer and many more!!

CURRICULUM OVERVIEW