



YEAR 9

Key Questions:

What is density & how do we calculate it?
 What happens when substances change state?
 What energy changes are involved in changing state?

Particle Model of Matter

Key Questions:

Why do we need to develop renewable energy?
 Why can birds sit on the powerlines between pylons?
 How do we solve the energy crisis?

Energy Resources

Key Questions:

What does an atom look like & what is its size?
 What is emitted when an atom decays?
 Why is radiation dangerous?

Atomic Structure

Key Questions:

How can we calculate kinetic & gravitational potential energy?
 How much energy is stored in a stretched spring?
 How can we find out how efficient machines are?

Conservation & Dissipation of Energy

Key Questions:

What is the difference between scalar & vector quantities?

Forces

YEAR 10

Key Questions:

What is the difference between scalar & vector quantities?
 What effect do multiple forces have acting on the same object?
 How do we know how much a spring will stretch?

Force & Motion

Key Questions:

What information can we discern from distance-time & velocity-time graphs?
 How can we predict the motion of objects?
 What factors influence the stopping distance of vehicles?
 How do Newton's Laws of Motion impact every aspect of our lives?

Force & Motion

Waves

Key Questions:

What are transverse & longitudinal waves?
 What is the electromagnetic spectrum & what is it used for?
 How can we use ultrasound?

YEAR 11

Key Questions:

What is an electric current?
 What factors affect the resistance of a length of wire?
 What is the difference between alternating & direct current & when are they used?

Electricity

How are energy & power output of electrical devices measured?

Key Questions:

What is a magnetic field & how can we detect it?
 What is the motor effect?
 Why have magnets become such an important & integral part of modern life?

Magnetism & Electromagnetism

GCSE Exam Revision:

- P1 – Energy
- P2 – Electricity
- P3 – Particle Model of Matter
- P4 – Atomic Structure
- P5 – Forces
- P6 – Waves
- P7 – Magnetism and Electromagnetism

GCSE Exam Revision