PHYSICS CURRICULUM

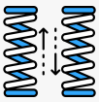
INTENT: Science provides students with knowledge about, and a secure understanding of, life and the world around them. Through the separate disciplines of Biology, Chemistry and Physics, they discover how science has, and continues to, shape the world in which we live. Students are taught to predict, analyse, explain and evaluate, as well as key mathematical and practical techniques, enabling them to take responsibility for the world of tomorrow.

Year 11




SPACE (Separates) | ELECTROMAGNETISM | DESCRIBING MOTION | FORCES & MOTION | RADIOACTIVE DECAY

- What evidence is there for the big bang theory?
- How do stars form?
- What are the applications of electromagnetism?
- How are magnetic fields produced?
- How can motion be represented graphically?
- How can motion be represented numerically?
- How do forces affect the motion of an object?
- How can nuclear energy be released?
- What are the types of nuclear radiation?





Year 10

FORCES & ELASTICITY | FORCES & ENERGY | PARTICLES & ENERGY | ENERGY & TEMPERATURE | COMPONENTS IN CIRCUITS | BEHAVIOUR OF ELECTROMAGNETIC WAVES

- What causes objects to change shape?
- How can forces transfer energy?
- How can we calculate the energy stored by objects?
- How do particles store energy
- How does temperature affect the energy of particles?
- What components do we use in circuits?
- How can we investigate the properties of different components?
- What are the properties of electromagnetic waves?

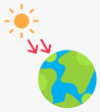




Year 9

TRANSFERRING ENERGY THROUGH WAVES | ENERGY & ELECTRICAL ENERGY | SPEED | MATTER

- How can we use waves to make observations?
- How can we measure the speed of a wave?
- How is electricity produced and distributed?
- How is energy stored?
- How can we represent motion?
- How do objects move?
- How can substances change state?
- What are the differences between solids, liquids and gases?


Year 8

SPACE | WAVES | MAGNETISM

- What is in the solar system?
- What causes night and day, and the seasons?
- What is a wave?
- How do we use waves?
- Why do magnets attract or repel?
- What causes a compass to point?





Year 7

ELECTRICITY | FORCES | FUNDAMENTALS OF PHYSICS

- What are the differences between series and parallel circuits?
- What are the components in an electrical circuit?
- How do forces affect speed?
- What is a force?
- How do particles transfer energy?
- What are the different energy stores?