Daubeney Academy

Physics Curriculum Road Map

Intent

- ❑ I will develop a curious mind and my excitement for science will be fuelled.
- ❑ I will be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

In Year 11...

- ❑ I will discover how engineers use a magnet moving in a coil to produce an electric current and how this can produce movement.
- ❑ I will learn how this electromagnetic effect is used in a variety of devices involving control and communications.
- ❑ I will apply a detailed understanding of Mathematical skills across the topics taught

In Year 10...

- ❑ I will explore the concept of energy as a key tool for understanding scientific systems, evaluating the use of fossil fuels and the link with global warming.
- ❑ I will analyse forces when designing machines and instruments, such as fairground rides.
- ❑ I will learn how waves carry energy from one place to another, can carry information and can be used in modern technologies.

In Year 9...

- ❑ I will explore how electric charge is a fundamental property of matter and learn how the difference in conductors makes it possible to design electric circuits.
- ❑ I will explore how the particle model is applied to predict the behaviour of solids, liquids and gases.
- ❑ I will link the properties of ionising radiation with the structure of atoms, nuclear forces and stability.
- ❑ I will develop my cross curricular Maths skills to re arrange equations relating to phenomena in Physics.

In Year 8...

- ❑ I will learn about heating and cooling, waves and electromagnetism.
- ❑ My specialist vocabulary will be extended and I will be expected to use this vocabulary when describing and evaluating processes.
- ❑ I will carry out investigations, predicting results and represent our findings using appropriate charts and graphs – describing and explaining patterns in results.

In Year 7...

- ❑ I will study the foundations for understanding the world through the specific discipline of physics.
- ❑ I will learn about energy, circuits, forces and space.
- ❑ I will be challenged to describe processes using technical terminology accurately and precisely and I will build up a specialist vocabulary.

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