



Hampton Court House

Curriculum Outline 2019/20 – Year 10 Physics (JWM)

Autumn 2019

Principal Text: *AQA GCSE (9-1) Physics by CGP*

We start by exploring the concept of energy paying particular attention to gravitational potential energy, kinetic energy and elastic energy. We use these to explore the most important principle of all of science, the principle of conservation of energy. We then move to energy changes in systems, power, insulation and energy efficiency. In the second half of the term, we start by exploring electrical energy, following with electric current, voltage and electric resistance.

Assessment of students' progress will be through a mixture of short quizzes in lessons, homework exercises and a more formal assessment from a bank of AQA past paper resources.

Links with fundamental values
The students have more practice of the Scientific Method which embraces evidence over opinion in order to understand and make sense of the world around them.
They will work on their own and in teams in order to promote resilience and mutual respect and tolerance of others. They will be encouraged to reflect on their own work and listen to the views of others.

Spring 2020

Principal Text: *AQA GCSE (9-1) Physics by CGP*

In the Spring Term we continue to explore electric circuits paying particular attention to its domestic uses, safety and power ratings. In the second half we start a new topic, the particle model of matter. We will be using this model to explain the changes in state of matter and measuring the density of objects and liquids. We will then explore the behaviour of gasses as the pressure, volume and temperature are changed.

Social, moral, spiritual and cultural content
We will provide an awareness of science as a social and cultural activity, which has strengths and limitations. The children's curiosity will be stimulated by demonstrating interesting scientific phenomena so they can appreciate and question the world around them. They will develop investigative abilities, paying due regard to safe practice.
We will acknowledge and recognise the contributions from scientists from around the world who have made significant contributions to the advancement of science.

Summer 2020

Principal Text: *AQA GCSE (9-1) Physics by CGP*

At the start of the Summer Term we will be embarking on the topic of waves. The pupils will learn how to describe the different features of waves. They will learn how to measure waves in solids, liquids and gases, before going on describe the properties of waves as they pass through different mediums. The properties of the electromagnetic spectrum will be covered.