**Bishop Heber High School**

| Subject | Year | Term |
|---|---|---|
| **Physics** | **9** | **2** |

## Topic

**Waves**

## Content (Intent)

**Prior Learning (Topic)** Energy Stores and Transfers

**Unit 6: Waves**

Students will revisit the basics on describing waves but will be introduced to the wave equation which will be used to in a required practical to find the velocity of water waves and waves along a solid material. A recap of reflection and refraction but with a more in-depth understanding of them using key words. A comparison of longitudinal and transverse waves will be done with the context of sound, ultrasound, seismic waves, and the E-M Spectrum.

**Future Learning (Topic)** Solids, Liquids and Gases (Particle Model Part 1)

### What Knowledge and Skills will be taught (Implementation)

**Understanding**

- Learning about frequency and wavelength to determine the velocity of waves, relating to the Forces topic (in terms of velocity calculations)
- Identify parts of the EM spectrum and explain why they are used in different applications.

**Maths Skills**

- Applying new formula in familiar and unfamiliar contexts.
- The application of collected data into graphs and for analysis.

**Practical Skills**

- Reading measuring equipment with accuracy and precision, taking repeats, following methods.

### How will your understanding be assessed & recorded (Impact)

**Formative Feedback Task (End of Unit tests)**

Pupils given formative feedback on:
Physics – Waves

**Assessment 2 (June):**
Summative assessment including:

- Waves

Cumulative assessment will include Energy (Energy and Energy transfers), Waves (Sound and Light, from Years 7 and 8.

**Interleaving topic:**
From Y8, the topic of electromagnets in the context of speakers will be used to relate to Waves – Sounds.

## How can parents help at home?

Ensure all class booklets are complete and homework submitted on time
Assist in ensuring the active use of the EDUCAKE online learning platform where each pupil is given a personal log on from their teachers.
Encourage pupils to revise for tests and exams and to create revision resources such as flash cards and posters.
Ensure all pupils have all their resources required for science lessons, including Knowledge organisers, pens and calculators

## Helpful further reading/discussion (including Reading and Vocabulary Lists)

**Reading**

EDUCAKE online learning platform.
BHHS Knowledge organisers
Resources on TEAMS
Glossaries

**Vocabulary Lists:**

| | |
|---|---|
| Transverse | Oscillation |
| Longitudinal | Transmit |
| Frequency | Propagate |
| Wavelength | Rarefaction |
| Spectrum | Compression |