There will be an interim assessment in each units; strengths and areas for development will be identified.

Year 7 Physics at CLHS

1. Introduction to Science

At the end of this unit you will be able to work confidently and safely with a range of scientific apparatus. We start by learning how to **identify risks and hazard**s in the science laboratory before moving on to look at common pieces of scientific equipment and how to use them to make **accurate measurements**. You will then be taught how to use a Bunsen burner safely to enable you to complete an investigation. We will learn how to **identify variables** in an experiment and then **write a scientific method** that can be followed to collect data. This data will then be **analysed** to write a **scientific conclusion**

Year 7

Half term 1

Half term 2

Half term 3

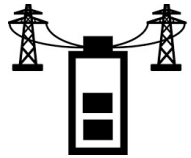
Half term 4

Half term 5

Half term 6

2. Energy 1: stores and transfers

In this unit we start by looking at the different ways in which energy can be stored and how it can be transferred from one store to another. We then define **conservation of energy** and **investigate** this in relation to the height that balls bounce. The final part of the topic sees us comparing different **renewable** and **non-renewable** energy resources and **evaluating** their impact on the environment



Baseline Assessment. Written test to determine starting point for all students in science

Graph skills: Investigating the bounce height of balls

SUMMATIVE ASSESSMENT 1 (Ecosystems 1, matter 1, forces 1) Week 11

3. Forces 1: Speed

We start by building on content covered at key stage 2 to categorise forces into **contact** and **non-contact** forces by considering their effects. Then we will measure forces and draw diagrams to represent forces acting on objects before **calculating resultant force** in different scenarios. We consider what happens when forces are **unbalanced** and how this affects motion. This leads on to calculating **speed** for different scenarios and considering **relative motion**.

Calculations: calculating speed

SUMMATIVE ASSESSMENT 2 (organisms 1, matter 2, forces 1) Week 19

4. Waves 1: Sound

This unit links back to the energy unit and we start with looking at the different types of waves and how they **transfer energy** from one place to another. We then focus on one particular type of wave: sound and what causes it and how it can travel. We **gather data** so that we can **calculate** the **speed** of sound and **evaluate** the methods used. We consider different types of sound and the link between the sound and the **waveform** seen on an **oscilloscope** trace. We link to biology by considering how we hear and how the ear works before finishing by considering **echoes** and how they can be used.

Calculations and evaluating a method: Determining the speed of sound

SUMMATIVE ASSESSMENT 3: Body systems, chemical reactions and sound May

5. Electromagnets 1: Circuits

This unit links back to key stage 2 work on simple electrical circuits. We will learn the different symbols used to represent **components** and how to draw them in circuit diagrams. We will then build different circuits to **investigate** factors in them including **current**, and **potential difference** and we will **compare and contrast** **series** and **parallel circuits.**

Literacy: comparing series and parallel circuits

SUMMATIVE ASSESSMENT 4 (organisms 2, reactions 2, electromagnets 1, genes 2) Week 37