# <u>Year 6 – Autumn Term 1 – World War II</u>

<u>rearo Adtarrir refirir vvolta vvarii</u>		
English	Maths- Place Value and addition and subtraction	Art
Apply their growing knowledge of root words, prefixes and suffixes	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit	Create sketches which communicate emotions and a sense of self with accuracy and imagination?
Read books that are set out differently and read for a range of purposes	Round any whole number to a required degree of accuracy	DT
Recommending books that they have read to their peers, giving reasons	Use negative numbers in context, and calculate intervals across zero	Know that food is grown, reared and caught in the UK, Europe and the wider world.
Write a non-fiction report with factual detail.	Solve number and practical problems that involve all of the above	PSHE
Identify the audience for and purpose of writing and select the correct form	Multiply numbers up to 4 digits by 2 digits using the formal written method of long multiplication	To be able to talk about emotions and manage conflict in ways to maintain healthy friendships.
Improve handwriting and presentation skills.	Divide numbers up to 4 digits by 2 digits using the formal written method of long division.	RE
Use a wide range of devices to build cohesion within and across paragraphs	Divide numbers up to 4 digits by 2 digits using the formal written method of short division.	To be able to explain some similarities and differences between beliefs about life after death
History	Use estimation to check answers to calculations	Computing
Applying knowledge of the Battle of Britain and evaluate the significance of the Coventry bombings.	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	To be able to explain how sharing information online can help people work together and evaluate different methods of communication.
Justify and give reasons for significant turning points in World War two.	Solve problems involving addition, subtraction, multiplication and division	Music
Apply knowledge of the Battle of Britain to create a non-chronological report.	Perform mental calculations, including with mixed operations and large numbers	To be able to understand a stories origins, traditions and the history of the music that they are exposed to.
	Identify the most efficient way to approach an addition/subtraction calculation	MFL
		To orally and in writing compose a greeting and introduction (give name and age) in Spanish.

# Plymouth Science

# **Knowledge Organiser**

Year 6 Light

#### VOCABULARY

**Light-** Light is a type of energy that makes it possible for us to see.

Source of light- The sun and other stars, fires, torches and lamps all make light are examples of light sources.

Reflection - Reflection occurs when a light ray hits a surface and bounces off.

Visible spectrum- The range of colours we can see with our eyes.

**Prism-** A prism is a 3d shape with identical ends, called bases and flat sides called faces. A prism allows us to see the visible spectrum.

Shadow- A dark area of shape produced by an object coming between rays of light and a surface.

Opaque- An opaque material does not let light through. It does not reflect light.

Translucent- A translucent material lets light pass through, but objects on the other side cant be seen clearly.

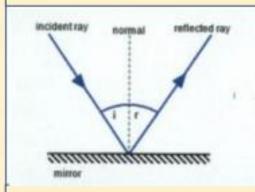
Transparent- Transparent materials allow you to see clearly through them.

Refraction- Light changes direction when passing through two different mediums.

## Light

Light is a form of energy that enables us to see.

### Reflection



Light travels in straight lines. It reflects off mirrors according to the law of reflection which states that the angle of incidence (i) = angle of reflection (r).

### Prism

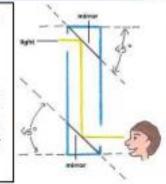


Light appears colourless (or white), when produced by natural light sources such as the sun or artificial light sources such as light bulbs or torches. White light is made up of a spectrum of colours with different wavelengths: red, orange, yellow, green, blue, indigo and violet.

## Periscopes



Light from an object strikes the top mirror at 45° and bounces off at the same angle. This sends light directly down the tube and onto the lower mirror. This mirror is also at 45 degrees which reflects light into your eye.









Mirrors in real life.



















