This is science

Topic	We are learning to:	👍	😐
What is Science?	State the names of the main areas of Science.		
	List some activities which are carried out in Science.		
	Give examples of jobs Scientists do		
Bunsen Burners	Label and correctly spell the parts of a Bunsen burner.		
	Light a Bunsen burner safely.		
	Draw a conclusion from our observations in an experiment.		
Apparatus	Accurately draw the symbols for apparatus used in KS3 Science.		
	Correctly spell the names for this apparatus.		
	Identify and locate the apparatus around the Science laboratory.		
Measurements	Understand the importance of units when recording measurements.		
	Choose appropriate scientific apparatus to make basic measurements.		
	Use basic measurement apparatus to make accurate measurements.		
Thinking like Scientists	Plan a simple experiment using the scientific method		
	Discuss the meaning of a *fair test* and plan a fair test experiment		
How to draw a line graph	Know when to use a line graph to represent our results		
	Successfully draw a line graph		
How to draw a bar graph	Know when to use a bar graph to represent our results		
	Successfully draw a bar graph		
Safety	State 10 safety rules of a Science lab		
	Identify Hazard symbols		
	Carry out a risk assessment		

Topic	We are learning:	👍	😐
States of matter	Describe the three states of matter, solid, liquid and gas in terms of particle arrangement and movement		
	Draw particle diagrams of solids, liquids and gases		
	Recall the physical properties of solids, liquids and gases		
	Explain why some substances expand when heated and during changes of state		
	Define and explain diffusion in liquids and gases		

Physical and chemical changes	Identify and name the changes of state between solids, liquids and gases		
	Recall that changes of state are examples of physical changes		
	Explain differences between physical and chemical changes		
	Identify signs of a chemical change		
	Recall that combustion is an example of a chemical change		
	The 3 factors needed for a fire to burn		

Life, body systems and cells

Topic	We are learning to:	👍	😐
What is a living thing?	Recognise living things		
	List the seven characteristics of living things		
Cells	Know that all living things are made of cells		
	Label the parts of an animal and a plant cell and describe their functions		
	Identify similarities and differences between plant and animal cells		
	Prepare an onion slide		
	Label a microscope and develop practical skills using microscopes		
What type of cell?	List and describe some specialised animal and plant cells		
	Work out the magnification of a microscope		
Tissues, organs and organ systems	Recognise that similar cells make up tissues, tissues make up structures called organs and they work together in organ systems		
	Identify the main organs of the organ systems and describe their functions		
	Relate the body systems to the characteristics of life.		

Forces everywhere.

Topic	We are learning to:	👍	😐
Introduction to Physics and Forces	Understand what Physics is and what physicists do		
	Research about two important Physicists (Albert Einstein and Sir Isaac Newton)		
Observations and Measurements	That physics involves observations and measurements		
	That units are vital for all quantities- be familiar with correct units for mass and weight		
	That physics ranges from the extremely small to the extremely large		
Forces	Forces are pushes and pulls		
	Define what a force is and its units		
	List different forces and observe their effect		
	Know the four possible effects of forces on an object		
	How to measure forces		
	Investigate the extension of a loaded spring		
Gravity and Forces	Give a definition for gravity		
	Know the difference between mass and weight		
	Know how to calculate weight on different planets		
Density Floating and Sinking	Compare materials using their density		
	Calculations using the Density equation Density = mass ÷ volume; Mass = density *X* volume; volume =mass ÷ density		
	Explain floating and sinking		

Atoms and elements

What we learned	😀	😭
Matter is anything that occupies space		
Matter is made up of building blocks called atoms		
An atom is the smallest particle of an element.		
Learn the general atomic structure of an atom		
Recall the names and positions of three subatomic particles		
Know that each element has a unique atom structure		
Define atomic number		
Elements are made up of just one kind of atom		
Elements can be sorted into metals and non-metals		
general properties of a metal		
The Periodic Table was first put together by Dimitri Mendeleev		
The smallest particle of a compound is called a molecule		
That compounds are different than the elements they are made of		
The air contains chemical elements		
Each element has its own characteristics or properties		
How to make oxygen in the laboratory		
the chemical test used to identify oxygen		
Compounds are formed when 2 or more elements join together		
the word equation for the chemical reaction between magnesium and oxygen		
Compounds are represented by chemical formula		
Chemical formula show how many of each element are present in a molecule		

Reproduction

Topic	We are learning:	👍	😐
Changes	To identify the physical changes that happen in puberty		
	To compare the changes of males and females at puberty		
	To identify the emotional changes that happen in puberty		
Sex cells	To identify the different parts of sperm cells		
	To identify the different parts of ovum cells		
	To understand the different functions of the cells' parts		
Reproductive systems	To identify the different parts of the female reproductive system		
	To identify the different parts of the male reproductive system		
	To understand the different functions of both reproductive systems		
Fertilisation and implantation	To understand the events that occur that lead to fertilisation		
	To identify the changes in the uterus		
Characteristics	To identify different characteristics between people		
	To understand what influences different characteristics		
Development of the baby	To identify the stages of foetal development		
	To understand how the foetus survives in the uterus		
Birth	To identify the three stages of birth		