Science

8CP Atoms and the periodic table of elements

	Key Word	Definition
1	Atom	The building block of all substances.
2	Atomic number	This shows the number of protons in an atom.
3	Mass number	This shows the sum of the number of protons and neutrons in an atom.
4	Element	A substance in which all the atoms are the same.
5	Periodic table	A list of all the known elements, with metals on the left and non-metals on the right.
6	Group	A vertical column in the periodic table, where all the elements have similar properties and the same number of outer shell electrons.
7	Period	A row in the periodic table.
8	Molecule	Two or more atoms chemically bonded together.
9	Compound	Two or more different atoms chemically bonded together.
10	Properties of metals	Shiny, good conductors of heat and electricity, malleable.
11	Malleable	Can be hammered into shape.
12	Reactivity	How quickly a chemical substance tends to undergo a chemical reaction in time.
13	Halogens	The elements in Group 7 of the periodic table, e.g. iodine.
14	Properties of halogens	They are non-metals with decreasing reactivity down the group.
15	Alkali metals	The elements in Group 1 of the periodic table, e.g. potassium.
16	Properties of alkali metals	They are soft metals with increasing reactivity down the group.
17	Noble gases	The elements in Group 0 of the periodic table. They are unreactive because they have a full shell of electrons.

8BD Nutrition and Digestion

	Key Word	Definition
1	Digestion	Process in which large insoluble molecules are broken down into small molecules, so that they can be absorbed.
2	Absorption	The process of taking nutrients from the digestive system into the blood.
3	Protein	Formed from amino acids . It is for growth and repair.
4	Carbohydrate	These include sugars and starch and provide us with energy.
5	Mineral ions	Needed in small amounts to maintain health—e.g. calcium for strong bones or iron to produce red blood cells.
6	Vitamins	Needed in small amounts to maintain health—e.g. Vitamin A for healthy eyes.
7	Fibre	This helps to keep the food moving through the digestive system.
8	Lipids	Used for energy storage and to insulate vital organs.
9	Enzyme	Proteins that can break down large molecules into small mole-
10	Lipase	An enzyme that breaks down lipids into fatty acids and glycerol.
11	Protease	An enzyme that breaks down proteins into amino acids.
12	Carbohydrase	An enzyme that breaks down carbohydrates into simple sugars.
13	Iodine	When added to starch, this turns blue-black.
14	Benedict's reagent	When heated with reducing sugars, this turns brick red.
15	Biuret solution	The solution to test for protein. When protein is present, it turns from blue to purple.
16	Symbiosis	Occurs when two organisms of different species live together in a very close relationship

Science

8PL Light and Space

	Key Word	Definition
1	Light	Electromagnetic waves that carry energy and travel in straight lines.
2	Reflection	The change in direction of light or sound when it hits a boundary and bounces back.
3	Refraction	Change in the direction of light going from one material into another.
4	Absorption	When energy is transferred from sound or light to a material.
5	Transmission	When energy penetrates through a material.
6	Iris	Coloured part of the eye that contains muscles. Its function is to control how much light enters the pupil.
7	Pupil	Hole in the middle of the eye that allows light to pass through as it enters the eye.
8	Retina	The lining of the back of eye containing two types of light receptor cells (rods and cones). These cells change light into nervous signals.
9	Optic nerve	It carries the nerve signals from the retina to the brain to allow vision.
10	Lens	The structure in the eye that focuses light onto the retina.
11	Gravitational field strength	The amount of force pulling each kg of mass. It always points to the centre of gravity.
12	Weight	The total force on an object pulling an it down because of gravity.
13	Seasons	The change in weather and amount of day light because of the tilt of the earth's axis
14	Day	The time it takes for a planet to rotate about its axis once.
15	Year	The time it takes for a planet to orbit the star once.

Working scientifically

	Key Word	Definition
16	Range	Range = Largest value - smallest value.
17	Mean	Add up all the values and divide by the number of values.
18	Median	Put the values in order and add find the middle value.
19	Mode	The most common value.
20	Results table	The left hand column shows the independent variable and the right hand column shows the dependent variable.
21	X-axis	Plot the independent variable here.
22	Y-axis	Plot the dependent variable here.