

## Year 8 – Autumn 1

Topic:	The Periodic table 1 (C.11)
Define "period"	Rows in the periodic table
Define "group"	Columns in the periodic table
Which side of the periodic table contains metals?	Left
Which side of the periodic table contains non-metals?	Right
Where are alkali metals found in the periodic table?	Group 1
Where are halogens found in the periodic table?	Group 7
Give 4 properties of metals	*High melting point
	*Good thermal and electrical conductors
	*Ductile
	*Malleable
Give 4 properties of non-metals	*Low melting point
	*Poor thermal and electrical conductors
	*Brittle
Define "alloy" (extension only)	Mixture of two elements, one is a metal
Why are alloys hard? (extension only)	Atoms are different sizes so can't slide over each

Topic:	The Periodic table 2 (history) (C.12)
What is the name for the smaller number given for each element?	Atomic number
What is the name for the bigger number given for each element?	Mass number
How do you calculate the number of protons for an element?	Use the atomic number
How do you calculate the number of electrons for an element?	Use the atomic number
How do you calculate the number of neutrons for an element?	Mass number - atomic number
How are elements arranged in the periodic table?	In order of atomic number (lowest to highest)
The column (group) in the periodic table tells us the	Number of electrons in the outer shell
What is the name of the elements found in the middle of the periodic table that are not part of a group?	Transition metals
Why did Mendeleev do when creating the modern periodic table? (extension only)	Left gaps to make the pattern fit
How do you calculate the relative formula mass of a compound? (extension only)	Add up the mass numbers

Topic:	The periodic table 3 (groups) (C.13)
Name 6 alkali metals in order of reactivity (low to high)	Lithium, sodium, potassium, rubidium, caesium, francium
What is formed when alkali metals (group 1) react with water?	Alkaline metal hydroxide
What happens to reactivity as you move down the alkali metals (group 1)?	Increases
Name the 5 halogens (group 7) in order of reactivity (low to high)	Astatine, Iodine, Bromine, Chlorine, Fluorine
State 3 properties of the halogens (group 7)	Non-metal, highly reactive, diatomic
What happens to reactivity as you move down the halogens (group 7)?	Decreases
Name three noble gases (group 0) (extension only)	Helium, neon, argon
State 3 properties of the noble gases (group 0) (extension only)	Non-metal, inert, gases
What happens to density as you move down the noble gases (group 0)? (extension only)	Increases

Topic:	Materials (extension only) (C.14)
How are ceramics made?	Shaping wet clay and heating in furnace
State two properties of ceramics	Hard and tough
Why do we glaze ceramics?	To make them waterproof
What is a polymer?	A very large molecule made from smaller molecules called monomers
Give an example of a polymer	Plastic
Give two properties of polymers	Insulators, unreactive
Define "composite"	A material made form two or more different types of material
Give two examples of composites	MDF and fibreglass
What is MDF made from?	Wood fibres and glue
Why do we use composites?	We can combine materials with useful properties

Topic:	Reaction properties (C.15)
Recall the six signs of a chemical reaction	1) Odour, 2) colour change, 3) precipitate formed, 4) temperature change, 5) gas produced, 6) light
	emitted
Define "exothermic"	A reaction which gives out energy
Define "endothermic"	A reaction which takes in energy
Describe the test for oxygen gas	Relights a glowing splint
Describe the test for hydrogen gas	A lit splint causes a squeaky pop
Describe the test for carbon dioxide gas	Turns limewater cloudy
If a salt contains two elements only, what ending is given to the name? (extension only)	"-ide"
If a salt contains two elements only, what ending is given to the name? (extension only)  If a salt contains more than two elements (including oxygen!), what ending is given to the name? (extension	l'atoli
only)	-ate
What is the formula for copper sulphate?	CuSO4
What is the formula for calcium carbonate?	CaCO3