

AQA Chemistry Paper 1		Covered in	Diagnosis			Revised		
C4.1 Atomic structure and the periodic table		Lesson	R	A	G	1	2	3
4.1.1 A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes	State that everything is made of atoms and recall what they are							
	Describe what elements and compounds are							
	State that elements and compounds are represented by symbols; and use chemical symbols and formulae to represent elements and compounds							
	Write word equations and balanced symbol equations for chemical reactions, including using appropriate state symbols							
	HT ONLY: Write balanced half equations and ionic equations							
	Describe what a mixture is							
	Name and describe the physical processes used to separate mixtures and suggest suitable separation techniques							
	Describe how the atomic model has changed over time due to new experimental evidence, inc discovery of the atom and scattering experiments (inc the work of James Chadwick)							
	Describe the difference between the plum pudding model of the atom and the nuclear model of the atom							
	State the relative charge of protons, neutrons and electrons and describe the overall charge of an atom							
	State the relative masses of protons, neutrons and electrons and describe the distribution of mass in an atom							
	Calculate the number of protons, neutrons and electrons in an atom when given its atomic number and mass number							
	Describe isotopes as atoms of the same element with different numbers of neutrons							
	Define the term relative atomic mass and why it takes into account the abundance of isotopes of the element							
	Calculate the relative atomic mass of an element given the percentage abundance of its isotopes							
Describe how electrons fill energy levels in atoms, and represent the electron structure of elements using diagrams and numbers								
4.1.2 The periodic table	Recall how the elements in the periodic table are arranged							
	Describe how elements with similar properties are placed in the periodic table							
	Explain why elements in the same group have similar properties and how to use the periodic table to predict the reactivity of elements							
	Describe the early attempts to classify elements							
	Explain the creation and attributes of Mendeleev's periodic table							
	Identify metals and non-metals on the periodic table, compare and contrast their properties							
	Explain how the atomic structure of metals and non-metals relates to their position in the periodic table							
	Describe noble gases (group 0) and explain their lack of reactivity							
	Describe the properties of noble gases, including boiling points, predict trends down the group and describe how their properties depend on the outer shell of electrons							
	Describe the reactivity and properties of group 1 alkali metals with reference to their electron arrangement and predict their reactions							
	Describe the properties of group 7 halogens and how their properties relate to their electron arrangement, including trends in molecular mass, melting and boiling points and reactivity							
	Describe the reactions of group 7 halogens with metals and non-metals							
Chem ONLY: Describe the properties of transition metals and compare them with group 1 elements, including melting points and densities, strength and hardness, and reactivity (for CR, Mn Fe, Co, Ni & Cu)								