

Chemistry Key Stage 3 Assessment Criteria

	Year 7	Year 8
“Exceeding” Evaluating Judging Hypothesising Creating	Mixtures and Separation I can explain how chromatography can be used in the wider world. Acids and Bases I can describe how to produce a metal salt from a metal oxide and acid. I can write word equations for the reactions of acids with bases. I can write word equations for the thermal decomposition on metal carbonates. Particles Model I can explain why there is a period of constant temperature during melting and freezing. I can suggest how the rate of diffusion may be affected. I can apply my knowledge of physical changes and particles in explaining, with diagrams, what is meant by Brownian motion in gases. I can use the particle theory to explain the properties of volume and compressibility of gases. Atoms, Elements and Compounds I can draw accurate diagrams of the electron structure of atoms or particular elements using the periodic table.	Combustion I can convert word equations to formula equations. I can write a balanced symbol equation for incomplete combustion. Periodic Table I can draw accurate diagrams of nuclei of atoms or particular elements using the periodic table. I can link group number and electron structure to explain the patterns of reactivity for Group 1 and Group 7 in the periodic table. I can represent compounds using chemical formulae. Metals I can suggest some applications for making substances impure. I can explain how collisions are random and must be successful in order for a reaction to occur. Rock I can link the formation of rocks together to describe and explain the rock cycle in detail.
“Securing” Analysing Differentiating Organising Attributing	Mixtures and Separation I can explain how simple techniques for separating mixtures work. I can analyse a chromatograph. I can explain the process of distillation. Acids and Bases I can identify a salt from a word equation. Particles Model I can explain the following physical changes in terms of conservation of material, mass and reversibility: melting, freezing, evaporation, sublimation, condensation and dissolving. I can describe what diffusion is and explain how diffusion happens in terms of the particle model. I can explain what causes pressure. Atoms, Elements and Compounds I can explain the differences between atoms, elements and compounds. I can use the properties of a given metal to explain its use. I can draw diagrams to represent substances contain a mixture of elements, compounds and molecules.	Combustion I can explain the advantages of complete combustion. I can represent various chemical reactions using formulae and symbol equations. Periodic Table I can describe the patterns of reactivity for Group 1 and Group 7 in the periodic table. I can understand what the numbers mean in a chemical formula. Metals I can identify pure and impure substances from data. Rock I can explain in detail how the three different types of rocks are formed, with reference to factors that may alter the appearance and properties of these rocks.
“Achieving” Applying Executing Inferring Implementing	Mixtures and Separation I can describe what happens at different stages of distillation. I can explain how temperature can affect solubility. I can describe how to carry out simple techniques for separating mixtures. Acids and Bases I can identify reactants and products from a work equation. I can describe neutralisation, combustion, thermal decomposition, oxidation, displacement and the reaction of metals and acids, as examples of chemical reactions. Particles Model I can explain changes of states of matter with reference to energy levels of particles. I can describe, in detail, the differences in arrangements, in motion and in closeness of particles explaining changes of state, shape and density I can explain the properties of the three states of matter with reference to the particle model. I can compare and contrast the similarities and differences between solids, liquids and gases with particular reference to density differences. I can explain how changes in temperature can affect the motion and spacing of particles. I can explain how pressure in gases may change. Atoms, Elements and Compounds I can name some elements in the periodic table when given their symbol. I can list examples of atoms, elements and compounds. I can draw simple diagrams to represent an element, compound and mixture.	Combustion I can describe the difference between complete and incomplete combustion. I can explain why mass is conserved during changes of state and chemical reactions. I can represent chemical reactions using word equations. Periodic Table I can represent elements using chemical symbols. I can explain why Mendeleev made the changes he did when developing the modern periodic table. I can state that the periodic table can be used to predict patterns in reactions and that elements in the same group of the periodic table will have similar patterns in reactions. Metals I can list the properties of metals and non-metals and I can describe how these properties make them suitable for different uses. I can explain how metals and non-metals react with water using word equations. Rock I can name the three different types of rocks and describe how these are formed

<u>“Developing”</u> Interpreting Classifying Summarising Explaining	Mixtures and Separation I can identify simple techniques for separating mixtures and select appropriate techniques for separating given mixtures. I can describe how temperature can affect solubility. Acids and Bases I can state the purpose of an indicator and describe how Universal indicator is used to find the strength of an acid or alkali using the pH scale. Particles Model I can describe how pressure occurs in gases. I can name and describe the properties of the three states of matter. I can state that particles may move through a fluid by diffusion. I can describe how changes of state can occur. Atoms, Elements and Compounds I can identify simple diagrams of elements, compounds and mixtures. I can label the subatomic particles and identify their relative masses and charges.	Combustion I can state that mass is conserved during changes of state and chemical reactions. I can state that during chemical reactions atoms are rearranged in order for reactants to become products. I can name the products of combustion. Periodic Table I can describe how elements with similar physical and chemical properties are grouped together. I can state that the modern periodic table was developed by Mendeleev and I can describe the changes that he made. Metals I can describe pure substances and mixtures, including dissolved substances. I can describe dissolving, with reference to particles. I can state that metal and non-metal oxides react differently with water and I can describe these differences. Rock I can name the three types of rock.
<u>“Emerging”</u> Remembering Recognising Recalling Describing	Mixtures and Separation I can list some mixtures. I can use simple techniques to separate mixtures. Acids and Bases I can state that different acids and alkalis may have different strengths. Particles Model I can draw particle diagrams to represent a solid, liquid and gas. I can classify materials as solid, liquid or gases. I can list the changes of states. Atoms, Elements and Compounds I can state that all elements currently known may be found listed in the periodic table. I can name common elements and use chemical symbols. I can recognise a simple atomic model.	Combustion I can state that during chemical reactions reactants become products. Periodic Table I can list examples of atoms, elements and compounds. I can state that all elements currently known may be found listed in the periodic table. I can state that the periodic table is arranged in periods and groups and I can identify these, as well as metals and non-metals, in the periodic table. Metals I can state that some materials (particularly metals) are more reactive than others. I can identify pure and impure substances from diagrams. Rock I can state that there are different types of rocks.