

Outcomes	Particle Model	Metals and Non-Metals	Earth Structure	Separating Mixtures	Acids and Alkalis
Emerging	I can use the correct keywords to describe changes in state.	I can state some properties of metals.	I know that the Earth has three layers; the crust, mantle and core.	I know the difference between a pure substance and a mixture.	I know that the pH scale is a measure of acidity and alkalinity.
Developing	I can draw diagrams to show the arrangement or particles in solids, liquids and gases.	I can use the word oxidation to describe a reaction in which a metal reacts with oxygen.	I can describe the differences between the three types of rock.	I can choose the most suitable technique to separate a mixture of substances.	I can use data and observations to determine the pH of a solution and explain what this shows.
Secure	I can explain the properties of solids, liquids and gases based on the arrangement and movement of their particles.	I can place an unfamiliar metal into the reactivity series based on information about its reactions	I can identify the causes of weathering and erosion and describe how they occur.	I can use evidence from chromatography to identify unknown substances in mixtures	I know that strong acids have lower pH values than weak acids and can name some strong and weak acids.
Advanced	I can explain changes in states in terms of changes to the energy of particles.	I can use particle diagrams to represent oxidation, displacement and metal-acid reactions	I can construct a labelled diagram to identify the processes of the rock cycle.	I can explain how substances dissolve using the particle model	I can describe a method for how to make a neutral solution from an acid and alkali
Excelling	I can argue for how to classify substances which behave unusually.	I can deduce a rule from data about which reactions will occur or not, based on the reactivity series.	I can describe similarities and differences between the rock cycle and everyday physical and chemical processes.	I can suggest a combination of methods to separate a complex mixture and justify the choices	Given the names of an acid and an alkali, work out the name of the salt produced

