

Year 6

Know the names of subatomic particles and that these determine the classification of elements in simple terms
Know that elements separated into different materials as they contain only one type of atom
Know that most elements are metals and name some, describing their uses
Know that most elements that are not metals are gases and name some, describing their uses

Year 5

Know how to compare and group everyday materials on the basis of their properties, including their hardness, solubility, absorbency, conductivity (electrical/thermal), and response to magnets
Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
Know how to use knowledge of solids, liquids and gases to decide how mixtures might be separated,
Know reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials
Know ways to demonstrate that dissolving, mixing and changes of state are reversible changes
Know and explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda

Year 4

Know how to compare and group materials together, according to whether they are solids, liquids or gases
Know, through observation, that some materials change state when they are heated or cooled, and measure or re-search the temperature at which this happens in degrees Celsius (°C)
Know and identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

Year 3

Know how to compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
Know and describe in simple terms how fossils are formed i.e. when things that have lived are trapped within rock
Know that soils are made from rocks and organic matter

Year 2

Know how to identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
Know through experience how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

Year 1

Know how to distinguish between an object and the material from which it is made
Know how to identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
Know ways to describe the simple physical properties of a variety of everyday materials
Know how to compare and group together a variety of everyday materials on the basis of their simple physical properties

F2

Know, through exploration, a range of common materials and how they can be used

Materials

The properties and uses of different materials

