**Chemistry KNOWLEDGE AND UNDERSTANDING**

Year 1

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| Everyday materials |
| distinguish between an object and the material from which it is made  identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock  describe materials using their senses – appearance colour/size, texture    describe the simple physical properties of a variety of everyday materials  compare and group together a variety of everyday materials on the basis of their simple physical properties |

**Chemistry KNOWLEDGE AND UNDERSTANDING**

Year 2

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| Uses of Everyday materials |
| identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses  find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching  find out how materials can be changed by heating & cooling e.g. water, chocolate, bread, clay  Sort objects into groups on the basis of simple material properties  Identify similarities/differences between materials.  Explain why materials are used for specific purposes (glass, copper wiring) |

**Chemistry KNOWLEDGE AND UNDERSTANDING**

Year 3

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| Rocks |
| describe in simple terms how fossils are formed when things that have lived are trapped within rock  recognise that soils are made from rocks and organic matter  describe / compare and group together different kinds of rocks and soils on the basis of their appearance, simple physical properties, texture and permeability |

**Chemistry KNOWLEDGE AND UNDERSTANDING**

Year 4

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| States of matter |
| compare and group materials together, according to whether they are solids, liquids or gases  identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature  recognise differences between solids, liquids and gases, in terms of ease of flow and maintenance of shape and volume  observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) |

**Chemistry KNOWLEDGE AND UNDERSTANDING**

Year 5

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| Properties and changes of materials |
| compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets  give reasons based on evidence for particular uses of everyday materials (metals, wood, plastic)  use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating  know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution  know 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.  classify changes as reversible or non-reversible  give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic  use properties to distinguish metals from other solids that some materials are better thermal insulators than others that some materials are better electrical conductors than others |

*“On our journey of faith, with Jesus as our guide, we share friendship, value learning and show*

*respect for ourselves and others, as we live, learn, play, work and pray together in our community.”*