



St John's Highbury Vale C of E Primary School

Conewood Street, London N5 1DL

Tel: 020 7226 4906

E-mail: admin@stjhv.islington.sch.uk

Head of School: Mrs Lindsey Hodgson

Executive Head: Mrs Tonnie Read

Knowledge, Skills and Understanding breakdown for
Everyday Materials

Year 1

Everyday Materials (classifying and grouping)

- Can they describe materials using their senses?
- Can they describe materials using their senses, using specific scientific words?
- Can they explain what material objects are made from?
- Can they explain why a material might be useful for a specific job?
- Can they name some different materials?
- Can they sort materials groups by a given criteria?
- Can they explain how solid shapes can be changed by squashing, blending, twisting and stretching?

Year 1 (Challenging)

- Can they describe things that are similar and different between materials?
- Can they explain what happens to certain materials when they are heated, e.g. bread, ice, chocolate?
- Can they explain what happens to certain materials when they are cooled, e.g. jelly, heated chocolate?





St John's Highbury Vale C of E Primary School

Conewood Street, London N5 1DL

Tel: 020 7226 4906

E-mail: admin@stjhv.islington.sch.uk

Head of School: Mrs Lindsey Hodgson

Executive Head: Mrs Tonnie Read

Knowledge, Skills and Understanding breakdown for Materials and their Properties Year 2	
Classifying and grouping materials	Changing materials
<ul style="list-style-type: none"> • Can they distinguish between an object and the material from which it is made? • Can they identify and name a range of everyday materials? (wood, plastic, metal, water, rock) • Can they describe the simple physical properties of a variety of everyday materials? • Can they compare and classify a variety of materials based on their simple physical properties? 	<ul style="list-style-type: none"> • Can they explore how the shapes of solid objects can be changed? (squashing, bending, twisting, stretching) • Can they find out about people who developed useful new materials? (Dunlop, MacKintosh, MacAdam) • Can they identify and compare the uses of a range of everyday materials? (wood, metal, plastic, glass, brick/ rock, paper/ cardboard) • Can they explain how things move on different surfaces?
Year 2 (Challenging)	
Classifying and grouping materials	Changing materials
<ul style="list-style-type: none"> • Can they describe the properties of different materials using words like transparent or opaque, flexible, etc.? • Can they sort materials into groups and say what they have sorted them in that way? • Can they say which materials are natural and which are man made? 	<ul style="list-style-type: none"> • Can they explain how materials are changed by heating and cooling? • Can they tell which materials cannot be changed back after being heated, cooled, bent, stretched or twisted? • Can they explain how materials are changed by bending, twisting and stretching?





St John's Highbury Vale C of E Primary School

Conewood Street, London N5 1DL

Tel: 020 7226 4906

E-mail: admin@stjhv.islington.sch.uk

Head of School: Mrs Lindsey Hodgson

Executive Head: Mrs Tonnie Read

Knowledge, Skills and Understanding breakdown for Materials and their Properties Year 3	
Changing, classifying and grouping materials	Rocks
<ul style="list-style-type: none"> • Can they sort the same group of materials in different ways? • Can they sort materials by a number of different criteria? • Can they suggest materials which could be used for specific jobs? • Can they set up a simple test to explore the differences between materials? • Can they set up a test to explore whether or not materials are attracted to a magnets? • Can they set up a test to explore whether or not a material will float or sink? • Can they compare the properties of materials in different situations e.g. floating in salty water, magnetism in water? • Can they describe what it means to reverse a change? • Can they describe which changes can be reversed? • Can they describe which changes cannot be reversed? 	<ul style="list-style-type: none"> • Can they compare and group together different rocks based on their simple physical properties? • Can they describe and explain how different rocks can be useful to us? • Can they describe and explain the differences between sedimentary and igneous rocks, considering the way they are formed? • Can they describe how fossils are formed within sedimentary rock?
Year 3 (Challenging)	
Changing, classifying and grouping materials	Rocks
<ul style="list-style-type: none"> • Can they explain different ways that they can sort the same group of materials? • Can they sort materials by a number of different criteria and explain their reasons? • Can they explain why certain materials are used for specific jobs? 	<ul style="list-style-type: none"> • Can they classify igneous and sedimentary rocks? • Can they begin to relate the properties of rocks with their uses?





St John's Highbury Vale C of E Primary School

Conewood Street, London N5 1DL

Tel: 020 7226 4906

E-mail: admin@stjhv.islington.sch.uk

Head of School: Mrs Lindsey Hodgson

Executive Head: Mrs Tonnie Read

Knowledge, Skills and Understanding breakdown for
Materials and their Properties

Year 4

States of matters (classifying and grouping)

- Can they compare and group materials based on their states of matter, i.e. liquid, solid or gas?
- Can they explain what happens to materials when they are heated or cooled?
- Can they measure the temperature at which different materials change state?
- Can they use measurements to explain changes to the state of water?
- Can they explain the part that evaporation and condensation has in the water cycle?

Year 4 (Challenging)

- Can they group and classify a variety of materials according to the impact of temperature on them?
- Can they explain what happens over time to materials such as puddles on the playground or washing hanging on a line?
- Can they relate temperature to change of state of materials?
-





St John's Highbury Vale C of E Primary School

Conewood Street, London N5 1DL

Tel: 020 7226 4906

E-mail: admin@stjhv.islington.sch.uk

Head of School: Mrs Lindsey Hodgson

Executive Head: Mrs Tonnie Read

Knowledge, Skills and Understanding breakdown for
Materials and their Properties

Year 5

Properties and changes to materials

- Can they test and group materials based on scientific evidence? (hardness, solubility, transparency, conductivity, insulation, magnetism)
- Can they explain the process of dissolving?
- Can they recover a substance from a solution?
- Can they decide how a mixture would best be separated? (filtering, sieving, evaporating)
- Can they give reasons for the uses of everyday materials based on scientific evidence?
- Can they show what they know about the properties of different materials?
- Can they use their knowledge of materials to suggest ways to classify? (solids, liquids, gasses)
- Can they describe changes using scientific words? (evaporation, condensation)
- Can they use the terms 'reversible' and 'irreversible'?

Year 5 (Challenging)

- Can they describe methods for separating mixtures? (filtration, distillation)
- Can they work out which materials are most effective for keeping us warm or for keeping something cold?

