## The Mead Infant and Nursery School - Science

Year 1 Everyday Materials

## Key Knowledge

What is a material?

All objects have a name - the material is the | 'stuff' |
| :--- |
| Wood |

Plastic
Glass
Metal
Water
Rock
Some materials are natural and some are man-made
Natural materials are materials which are found in nature.
Man-made materials are materials which have been produced by humans.

| Properties of materials |  |
| :--- | :--- |
| Hard | Not easily broken |
| Soft | Easy to cut |
| Stretchy | Can be made longer or wider <br> without breaking |
| Rigid | Doesn't change shape easily |
| Shiny | Reflects light easily |
| Dull | Not very bright or shiny |
| Rough | Has an uneven surface |
| Smooth | An even surface with no lumps <br> or bumps |
| Flexible | Can be bent easily |
| Waterproof | Keeps out water |
| Absorbent | Soaks up liquid easily |
| Transparent | Easily to see through |
| Opaque | Not able to see through |
| Can you com |  |


| Material | Something an object is made from |
| :--- | :--- |
| Properties | An attribute, quality, or characteristic <br> of something. |
| Liquid | A material that can flow and take on <br> the shape of a container |
| Surface | An outside layer of an object |
| Object | Something physical |
| Wood | the material which forms the trunks <br> and branches of trees |
| Plastic | a material which is light in weight and <br> does not break easily |
| Glass | a hard transparent material <br> gold, or lead |
| Metal | Clear liquid in seas, lakes, rivers, <br> and rain |
| Water | the hard substance which the Earth is <br> made of |
| Rock | things that exist in nature and are not <br> made by people |
| Natural |  |
| Man-made | things are created by people <br> Experiment with different materials - <br> waterproof, flexibility, strength and <br> transparency |
| Scientific Enquiry <br> What is the best material for a kite / <br> umbrella / dog basket / bookshelf? |  |

## Can you compare and group materials?

Waterproof or not waterproof?
Absorbent or not absorbent?
Rough or smooth?
Flexible or rigid?
Hard or soft?

Transparent or opaque?

# The Mead Infant and Nursery School - Science 

Year 2 Everyday Materials

| Key Knowledge |  |  | Key Vocabulary |  |
| :---: | :---: | :---: | :---: | :---: |
| Properties of materials |  |  |  |  |
| Wood <br> Plastic <br> Glass <br> Metal <br> Water <br> Rock | Hard, strong, rigid <br> Strong, smooth, flexible <br> Transparent, smooth, rigid <br> Hard, strong, shiny <br> Liquid, wet, clear <br> Hard, strong |  | Properties | An attribute, quality, or characteristic of something. |
|  |  |  | Suitability | The quality of being right or appropriate for a particular person, purpose, or situation |
|  |  |  | Hard | Solid, firm, and rigid; not easily broken, bent, or pierced. |
|  |  |  | Strong | Able to withstand force, pressure, or wear. |
| Wood can be used for: |  | Doors, tables | Rigid | Unable to bend or be forced out |
| Plastic can be used for: |  | Pens, rulers, toys |  | of shape; not flexible. |
| Glass can be used for: |  | Windows, glasses | Flexible | Capable of bending easily without |
| Metal can be used for: |  | Cars, coins, cutlery |  | breaking. |
| Rock can be used for: |  | Garden walls, buildings | Elastic | Able to resume its normal shape |
| Brick can be used for: |  | Houses, walls |  | spontaneously after being |
| Paper can be used for: |  | School books, wrapping paper |  | stretched or compresse |
|  |  | Rough | Having an uneven or irregular surface; not smooth or level. |
| Card can be used for: |  |  | Folders, birthday cards | Smooth | Having an even and regular surface; free from perceptible projections, lumps, or indentations. |
| Different materials can be used for the same object |  |  |  |  |  |  |
| Some objects can be made from various materials. |  | For example, a spoon can be made from metal, plastic or wood. |  |  |  |  |
|  |  | Waterproof | Keeps water out |  |  |
|  |  | Absorbent | Soaks up liquid easily |  |  |
| Changing the shape of materials |  |  | Transparent | See through, clear |  |
| Squashing | Press or crush something so that it becomes flat or out of shape. |  | Translucent | allowing light through, but not clear |  |
|  |  |  |  | Force | A push or a pull on an object. <br> A force happens when two objects interact-that is, when one object does something to the other object. When the interaction stops, the force stops, too. |
| bending | Changing is curved |  | traight object so that it |  |  |
| twisting | Change th turning it. | shape of an object by |  |  |  |  |
| stretching | Made long without te | or wider (extend) ing or breaking. |  |  |  |  |
| Scientific Enquiry |  |  |  |  |  |
| Explore and investigate materials. Can you find an object that is made from more than 2 materials? Suitability investigation- linked to London topic, building a London landmark. |  |  |  |  |  |

