



| Subject | Term | Unit |
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| Science- Year 1 | Autumn 1 | Everyday Materials |

Intent

At Hurst Hill, we nurture young scientists by fostering curiosity and developing strong scientific knowledge and enquiry skills. Children learn to investigate, observe and evaluate confidently, understanding how science shapes the past, present and future while building firm foundations for lifelong scientific learning.

| Prior knowledge | National Curriculum |
|---|---|
| <ul style="list-style-type: none"> Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes. | <ul style="list-style-type: none"> 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 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. |

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| What? | Understand what objects are made from and to describe material properties. |
| Why? | The children need to know the difference between materials and objects. They need a knowledge of material properties to understand a change in state and to help with DT and art lessons. |
| How? | Through observation and comparison. By looking at a wide variety of materials. Using oracy to discuss the properties of different materials. |

Vocabulary

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| absorbent | Material that soaks up liquid easily. |
| bendy | An object that bends easily into a curved shape. |
| dull | A colour or light that is not bright. |
| elastic | A rubber material that stretches when you pull it and returns to its original state when you let go, |
| Man-made | Things that are created by people. |
| metal | Hard substance such as iron, steel, gold or lead. |

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| natural | Things that exist nature that are not man made. |
| opaque | An object that you cannot see through. |
| plastic | Material that is light in weight and doesn't break easily. |
| rough | Uneven and not smooth. |
| shiny | Things that are bright and reflect light. |
| smooth | No roughness, lumps or holes. |
| soft | Not rough or hard. |
| stiff | Firm or does not bend easily. |
| stretchy | Slightly elastic. |
| transparent | An object you can see through. |
| waterproof | doesn't let water pass through it. |

Learning

| Objective | Learning |
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| Can I identify different materials? | <p style="text-align: center;">Pattern seeking</p> <p>Wood, plastic, glass, metal, water and rock. Have a selection of objects for the children to look at and to sort into different groups. Go around school on a walk and find different materials. Create a board with materials and the names of the material. Be really explicit with difference between objects and materials.</p> |
| Can I describe the features of materials? | <p style="text-align: center;">Pattern seeking</p> <p>Wood, elastic, cotton wool, metal, stone Hard, soft, bendy, stretchy, rough, smooth Look at examples of what the words mean. Ask the children to show these things with their bodies and pictures- e.g. stretch up tall, now find an object that is stretchy.</p> |
| Can I identify which materials stretch the most when mass is added to them? | <p style="text-align: center;">Comparative testing</p> <p>Elastic, bendy, stretchy, stiff, Plastic, wool, elastic, cotton, rubber Carry out a comparative test. Use the fair test boards to introduce the words change and measure. Have a bag and a number of weights. Use the materials to hold the bag and add the weights. Which material was the most stretchy? Record as a simple statement for the results.</p> |
| Which materials are waterproof? <i>We need to choose a material to make an umbrella.</i> | <p style="text-align: center;">Identifying, classifying</p> <p>Tissue, plastic bag, cardboard, fabric. Have a range of different materials. Discuss what a good umbrella needs to do. Look at different umbrellas. Use the pipettes and the different materials to see which material holds the most water. Record as a simple statement for the results.</p> |

Comparative testing

Can I identify which materials are the most absorbent?

Use a range of materials
Toilet roll, cotton wool, sponge, newspaper, towel,
Have a range of different materials. Use the fair test boards to reintroduce the words change and measure. We will change the material and we will observe how much water is absorbed. Create a simple class table with pictures before and after.
Drop water on to the materials. Discuss which material absorbed the most water? Record as a simple statement for the results.

Identifying and Classifying

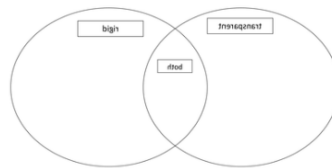
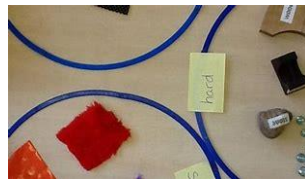
Can I classify materials?

- Natural Materials
Chalk, sand, oil, leather, iron, gold, cotton, coal, wood,
- Man-made materials
Concrete, glass, paper, rubber, steel, plastic, polyester

How do the materials you have been given fit into these categories?

- Hard/soft Stretchy/stiff Shiny/dull Rough/smooth
Waterproof/non-waterproof

Children use sorting hoops and criteria to sort materials in as many different ways as they can using the learning that has taken place. Children could draw, cut and stick, take photos to record what they have found out.



Websites

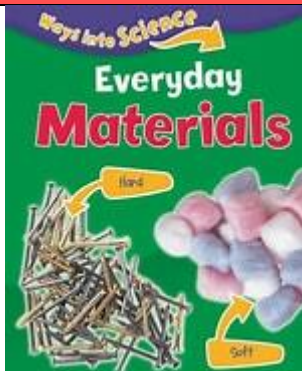
[Everyday materials - KS1 Science - BBC Bitesize](#)

[Properties of Materials - Science Games & Activities for Kids \(sciencekids.co.nz\)](#) Is it waterproof?

[All subjects - Year 1 - Oak National Academy \(thenational.academy\)](#)

[Everyday Materials Year 1 - KS1 | Outstanding Science](#)

Recommended Reads



Golden Thread

Materials