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| **Year 1: Identifying Materials (Materials and Changes of State) UPDATED November 2023** | |
| **Links made with other subjects** | DT: puppets |
| **The BIG Question** | What are things made from? |
| **The BIG Outcome** | To complete a tour of the school and its grounds identifying different objects and what they are made from. |
| **Science objectives**  (link to NC) | - 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. |
| **Prior knowledge**  What prior knowledge is needed for children to be successful in this unit? | *Children already know:*  EYFS – Understanding the world: Children know about similarities and differences in relation to places, objects, materials and living things. They can talk about the features of their own immediate environment and how environments might vary from one another. They can make observations of animals and plants and explain why some things occur. They can talk about changes. |
| **Future learning**  Consider the conceptual knowledge within a subject that pupils need for future learning not just the recall of facts but the importance of concepts | This unit gives prior knowledge to:  Year 2: **Changing shape and Uses of materials**  Year 4: **Changes of State**  Year 5: **Separating mixtures, Types of Change and Materials** |
| **Science strands** | Related Enquiry Questions   |  | | --- | | **Classifying** | | Classify objects made from the same material (e.g. lots of things made from plastic).  Classify one object made from different materials (e.g. cups made of different materials).  Classify different fabrics based on texture (e.g. to make a feely-book for a child). Classify paper/plastics/fabrics. | | **Observing over time** | | Not relevant | | **Pattern Seeking** | | Not relevant | | **Comparative testing** | | - Test objects made of different materials to see how effective they are e.g. umbrellas/hats/coats for waterproofness, cloths/nappies for absorbency, socks for elasticity, bounciness of balls, sunglasses for protection from the sun, picnic plates for stiffness, door mats for wiping your feet, different papers for writing on/painting etc. | | **Researching** | | Not relevant | |
| **Vocabulary/ Glossary** | Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through |
| **Knowledge**  (see italics for knowledge to remember) | *The knowledge that children will learn and remember:*   1. *All objects are made of one or more materials.* 2. *Children recognise that objects such as a chair is made out of the material plastic and distinguish the difference between this and a chair made out of wood. Children are also able to distinguish the difference between this and other items made out of plastic such as a water bottle.* 3. *Some objects can be made from different materials e.g. plastic, metal or wooden spoons and chairs can be plastic, wooden or metal framed* |
| **SEND expectations** | 1. *All objects are made of one or more materials.* 2. *Can name some objects and the material they are made from.* 3. *Recognises that the same object can be made differently* |
| **Common Misconceptions** | Some children may think:  - only fabrics are materials  - only building materials are materials  - only writing materials are materials  - the word ‘rock’ describes an object rather than a material  - ‘solid’ is another word for hard. |