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| Everyday Materials - **Brilliant Builders!**  [6 sessions] | **Content**  i. distinguish between an object and the material from which it is made (1EM)  ii. identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock (1EM)  iii. describe the simple physical properties of a variety of everyday materials (1EM).  iv. compare and group together a variety of everyday materials on the basis of their simple physical properties (1EM)  v. identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses (2EM)  vi. find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching (2EM)  **Working Scientifically (KS1 WS)**  i. asking simple questions and recognising that they can be answered in different ways  ii. observing closely, using simple equipment  iii. performing simple tests  iv. identifying and classifying  v. using their observations and ideas to suggest answers to questions  vi. gathering and recording data to help in answering questions |
| By the end of this block you will have achieved the following **National Curriculum Science outcomes** |
| Session 1:  **We're Going on a Material Hunt!**  Play 'I-Spy the Material' game in the classroom, before discussing why different materials have been used. Sort items according to their properties and consider what it would be like if the tables were made of jelly or the chairs were chocolate. | Children will:   * Identify some of the materials in the classroom * Appreciate the usefulness of some materials (tables made of wood and metal, not jelly) * Understand the difference between an object and the material from which it is made (Yr1)   Sort objects according to their properties, usefulness and other criteria (Yr2) |
| Session 2:  **Material Pairs and Properties**  Think carefully about the different materials and their properties, and play games in pairs with items from the classroom. Write songs based on the properties in materials and sing together at the end of the session. | Children will:   * Understand that objects are made of different materials and they have simple properties * Know that there is a difference 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 |
| Session 3:  **Sticking Together**  Play with magnets and explore their properties. Discover what's attracted to them and why. Create games using the magnets and metal objects in the classroom. | Children will:   * Explore a variety of different magnets and objects * Consider questions such as: does everything made of metal stick to a magnet? (Yr1) * Discuss the properties of metal objects and usefulness of magnets (Yr2) |
| Session 4:  **Odd One Out**  Play 'Odd One Out' by carefully considering the properties of some objects, sort objects in the classroom and then have fun imagining a world where nothing is rigid! | Children will:   * Understand materials and their properties by sorting and classifying objects * Understand the properties of materials using terms such as: hard, soft, stretchy, stiff, bendy/floppy * Imagine and wonder at a world where a material property was missing, such as rigidity |
| Session 5:  **Three Little Pigs: Brilliant Builders?**  Listen to the story of the three little pigs and, in small groups, recreate using straw, twigs and bricks. Make predictions and a video. | Children will:   * Explore, and understand the properties of the different materials the Little Pigs used (Yr1) * Predict which material will be the most successful for the Little Pigs and why (Yr2) * Understand why some pigs may not choose to use bricks (more expensive, heavier, harder work to build with etc) and suggest successful alternatives based on previous learning |
| Session 6:  **Three Little Pigs: Alternative Materials**  Using alternative building materials recreate the story of the three little pigs and predict what will happen to their houses! | Children will:   * Explore and use materials to recreate the alternative story of the Three Little Pigs (Yr1) * Predict which material will be the most successful and why (Yr2) |

**Resources**

**Session 1**

**Provided:**  Material Zones resource, and vocabulary definitions.

**You will need:** A collection of objects made from different materials and with different textures, hoops, and an opaque bag.

**Session 2**

**Provided:** .Material Snap, and Frère Jacques materials song.

**You will need:** A collection of objects made from different materials and with different textures.

**Session 3**

**Provided:**  Ideas on magnetic games

**You will need:** Magnets, metal objects attracted to magnets, jars (one for each pair), paper clips, and string.

**Session 4**

**Provided:**

**You will need:** Magnets, hoops, objects made from different materials, strips of card, trays, and cloths.

**Session 5**

**Provided:** 'What's My Material?' cards.

**You will need:** Sticky tape, iPads, little twigs, hay or straw, art straws, Lego™, play dough, clay, and video recording devices.

**Session 6**

**Provided:**

**You will need:** Edible alternatives to the straw, sticks and bricks - strawberry laces, bread sticks or chocolate matchsticks and sugar cubes for example, trays, video recording devices, and freezer bags.