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| Subject: Science Year: KS1 year 1 Everyday Materials  NC/PoS:   * 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. |
| Prior Learning (what pupils already know and can do)  Know materials have different properties. Know there are natural materials and manmade. Can group collections of materials with similar and/ or different properties. Can discuss differences between materials. |
| End Goals (what pupils MUST know and remember)   * know objects are things we can see or touch and can be made from one or more materials * know a material is the matter from which a thing is or can be made from * know a natural material is any product that comes from plants, animals, or the ground * know examples of natural materials are water, wood, rock, cotton, iron, oil, leather * know manufactured materials are materials that have been produced by man * know examples of manufactured materials are plastic, metal, glass, brick, paper, fabric, foil * Know that everything is made up of materials * Know materials can be grouped according to their properties * Know varied materials, have different properties * Name different properties: hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent |
| Key Vocabulary: object, material, plastic, metal, glass, brick, paper, fabric, foil, water, wood, rock, cotton, iron, oil, leather, air, natural, manufactured, ice, silk, paint, sponge, fur, feather, sand, wool, concrete, property, hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent, flexible |
| Session 1: review prior learning: give the children different materials to sort  Children learn to distinguish between object and material. Objects are things we can see or touch and can be made from one or more materials and a material is the matter from which a thing is or can be made from  Suggested resources:  <https://www.youtube.com/watch?v=7puHegpyGbY> objects and materials  <https://www.youtube.com/watch?v=8uM_RU3vzXU> Objects are made of materials  Vocabulary: object, material |
| Session 2: Recap: what is the difference between an object and a material? Name at least six of each.  Children learn to group objects through observation  Suggested activities:  Group objects according to material – include balloon filled with air and one filled with water, use a variety of household objects and ones from school  Children can record in their own way.  Vocabulary: plastic, metal, glass, brick, paper, fabric, foil, water, wood, rock, cotton, iron, oil, leather, air |
| Session 3: Recap: How might we group materials?  Children learn a natural material is any product that comes from plants, animals, or the ground: examples are water, wood, rock, cotton, iron, oil, leather  Manufactured materials are materials that have been produced by man: examples of manufactured materials are plastic, metal, glass, brick, paper, fabric, foil  Suggested resources:  <https://www.youtube.com/watch?v=0yKoHAWVhuE> Natural and manmade materials    Vocabulary: natural, manufactured, ice, silk, paint, sponge, fur, feather, sand, wool, concrete |
| Session 4: Recap: what is the difference between a manufactured and manmade material? Give examples  Children learn that everything is made up of materials and materials can be grouped according to their properties  Suggested resources:  <https://www.youtube.com/watch?v=340MmuY_osY> Materials and their properties  Children sort a variety of materials  Vocabulary: property, hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent, flexible |
| Session 5: Recap: Name properties of different materials  Children learn to name different properties: hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent  Suggested activity:  Children complete a material walk around the school  Give the children a property on card and they locate materials which have that property  Vocabulary: property, compare |
| Session 6: Recap: name a property – which materials have this property? Etc.  Children perform simple tests to explore questions about materials  Suggested activities:  Provide the children with a variety of materials and get them to predict which one would be most suitable. Test their predictions.  What is the best material for an umbrella?  What is the best material for lining a dog basket?  What is the best material for curtains?  What is the best material for a bookshelf?  Vocabulary: prediction, predict, simple test |
| Link to career scientist:  <https://pstt.org.uk/application/files/1116/2851/6355/Materials_scientist_-_Pearl_Agyakwa.pdf> |