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)

To know objects are things we can see or touch and can be made from one or more materials

To know a material is the matter from which a thing is or can be made from

To know a natural material is any product that comes from plants, animals, or the ground

To know examples of natural materials are water, wood, rock, cotton, iron, oil, leather

To know manufactured materials are materials that have been produced by man

To know examples of man-made materials are plastic, metal, glass, brick, paper, fabric, foil

To know that everything is made up of materials

To know materials can be grouped according to their properties

To know different materials have different properties

To 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 varied 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 research natural and manufactured materials

A natural material is any product that comes from plants, animals, or the ground. Examples of natural materials are water, wood, rock, cotton, iron, oil, leather Man-made materials are materials that have been produced by man Examples of man-made 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 to describe properties of materials

Varied materials have different properties and a property is anything that describes a material

Different properties: hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent Suggested resources:

https://www.youtube.com/watch?v=340MmuY osY Materials and their properties 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 varied materials

Children learn to compare and group materials based on their properties Materials have more than one property.

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 Aqyakwa.pdf