Materials

I will learn what different materials are used for and can identify their properties

Lesson sequence

1. *Discuss prior learning.*
2. *Identify the uses of different materials.*
3. *Know the uses of everyday materials in and around the school.*
4. *Know the properties of materials that make them suitable or unsuitable for particular purpose.*
5. *Identify material inventions and discoveries.*
6. *Know how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.*
7. *Explain the process of recycling.*
8. *Know that some materials are used for more than one thing.*
9. *Know that different materials can also be used for the same thing.*
10. *To identify the most suitable material for wrapping paper.*
11. *Discuss what I have learnt during this science topic.*

Enquiry Types

Concept Links/Prior Knowledge

I know the difference between an object and the material from which it is made. I can identify and name a variety of everyday materials. I know and can describe the simple physical properties of a variety of everyday materials. I know when to use words such as properties such as: hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent. Know, compare and group together a variety of everyday materials on the basis of their simple physical properties. To know which materials may be best for certain objects or items.

Sticky learning

New Knowledge

- *I know that different materials are suitable for different uses including wood, metal, plastic, glass, brick, rock, paper and cardboard.*
- *I know that some materials can be used for specific uses.*
- *Know that some materials are used for more than one thing (metal can be used for coins, cans, cars and table legs; wood can be used for matches, floors, and telegraph poles)*
- *I know that different materials can also be used for the same thing (spoons can be made from plastic, wood, metal, but not normally from glass)*
- *I know the properties of materials that make them suitable or unsuitable for particular purpose*
- *I know about unusual and creative uses for everyday materials and give some real life examples inventors, creators or artists/designers have thought of in the past and in modern times (e.g. John Dunlop, Charles Macintosh or John McAdam).*
- *I know how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.*
- *To know the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits.*

Skills

- *I can ask questions about what I notice.*
- *I can recognise that these questions can be answered in different ways.*
- *I can make simple predictions and say if what happened was what I expected using my test results.*
- *I can make observations using simple measurements and equipment.*
- *I can carry out simple comparative tests.*
- *I can use books, texts and videos to find out information about a scientific topic*
- *I can identify, group and classify things.*
- *I can record and communicate my findings using simple scientific language.*
- *I can gather and record data to help in answering questions.*
- *I can make simple conclusions.*

Visual representations

More detailed knowledge and information
Significant people/places

Vocabulary revision (vocabulary I have been taught before)

Wood, metal, plastic, glass, brick, rock, paper and cardboard.

Hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent.

Compare, evaluate, analyse, predict

New vocabulary I will learn

Bend, twist, stretch, squash, man-made, natural, properties, suitability, unsuitability, purpose, unusual, inventors, solid, dissolve.