

Previous Knowledge

Objects look and feel different based on the material they are made from. Using different materials when painting and making art.

Project Hook or 'Wow' memory

Making and testing waterproof hats

The key skills we want pupils to use during this topic:

Identify and classify - classify materials objects are made from and classify them into wood, plastic, glass, metal, rock.

Research – which materials are waterproof ?

Report findings by talking and writing about them, displaying or **presenting results** and **conclusions**. Use results to draw simple conclusions, make **predictions**, suggest **improvements** and ask more questions.

Gather, record, sort and **present data** in a variety of ways to help in **answering questions**.

Learning Steps

Key Knowledge (answers)

What materials did the Three Little Pigs use to build their houses with? Did they work well? **(Identify and classify)**

Object– the house they made. Material—what the object (house) is made from. Straw– the house was too weak and **bendy** so it blew down easily in the wind
Sticks– This house was stronger but still blew down easily
Bricks–This house was made from rectangular blocks of baked clay which were very

What are the different types of materials? **(Identifying and classifying)**

Paper, for example paper books. Brick– brick houses, fabric– clothing made from fabric, stone– stepping stones plastic– plastic toys, wood– wooden furniture, metal– metal tools, water– drinking water glass– glass window.

Which materials are hard, soft, stretchy, rough, smooth, shiny, dull bendy and not bendy, opaque, transparent? **Comparative testing and pattern**

Materials to test are wood, plastic, glass, metal water, rock, brick, paper, fabric, elastic, foil
Wood is dull often not bendy, hard and not bendy, opaque. Plastic– normally bendy, smooth sometimes transparent.
Glass– hard, not bendy, smooth mostly transparent. Metal– hard, not bendy can be rough or smooth, often shiny sometimes dull, opaque. [water](#)

Which materials are hard, soft, stretchy, rough, smooth, shiny, dull bendy and not bendy opaque, transparent? **Comparative testing and pattern**

Materials to test are rock, brick, paper, fabric, elastic, foil
Rock– hard, not bendy, rough sometimes smooth, dull, opaque. Brick-hard, not bendy, rough sometimes smooth, dull, opaque. Paper- bendy sometimes stretchy, smooth, dull sometimes shiny, opaque. Fabric– soft sometimes stretchy, smooth or rough, sometimes shiny, bendy normally opaque. Elastic– soft, stretchy, dull, bend opaque. Foil– smooth, rough if scrunched up- shiny, bendy, opaque.

Which is the best material for a waterproof hat/umbrella? **(Fair testing)** Design using predictions

Good waterproof materials would be plastic, foil, leather, polyester
Non waterproof materials would be cotton (most fabrics) paper, wood,
Materials that are too heavy would be brick, rock, metal,

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Key vocabulary

Object A thing that can be used. For example a door, chair, car, table.

Material Materials are what an object is made from.

Smooth Smooth objects have no lumps and bumps

Bendy Bendy things can be folded easily

Waterproof /not If something is waterproof it keeps water out. It keeps things dry.

Opaque If an object or substance is opaque you cannot see through it.

Transparent If an object is transparent you can see through it

Absorbent If something is absorbent it soaks water up.

Not absorbent If something is not absorbent it does not soak water up.

Statutory Requirements

I can distinguish between an object and the material from which it is made.

I can identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock.

I can describe simple physical properties of a variety of everyday materials.

I can compare and group together a variety of everyday materials on the basis of their simple physical properties.

