Year 1 – Materials

National Curriculum Objectives

- **Distinguish between and object and the material from which it is made.**
- **Identify and name a variety of everyday materials, including wood, metal, plastic, glass, water and rock,**
- **Describe the simple physical properties of a variety of everyday materials.**
- **Compare and group together a variety of everyday materials based on their simple properties**

Sticky Knowledge

- There are many different materials that have different describable and measurable properties.
- Materials that have similar properties are grouped into metals, rocks, fabrics, wood, plastic and ceramics (including glass).
- The properties of a material determine whether they are suitable for a purpose.

Vocabulary

Hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy/not bendy, waterproof/not waterproof, absorbent, opaque,

Key Scientists	Linked Texts
William Addis (Toothbrush Inventor)	***The Great Paper Caper*** *(Oliver Jeffers)*
Charles Mackintosh (Waterproof coat)	***Who Sank the Boat*** *(Pamela Allen)*
John McAdam (roads)	***The Story of Cinderella*** *(Walt Disney)*

Prior Learning

In Early Years children should:

- **be able to ask questions about the place they live.**
- **Talk about why things happen and how things work.**
- **Discuss the things they have observed such as natural and found objects.**
- **Manipulates materials to achieve a planned effect.**

Key Question(s):

It is recommended that materials be taught three times through KS1. Give a theme for each topic e.g. buildings, exploration, toys, the seaside. Plan to investigate a couple of classes of materials and properties in each topic so children get a depth of experience each topic and cover all the classes of materials over the key stage

Buildings

- Which rocks are the least crumbly?
- Which materials absorb the most water?
- Which type of brick would be the easiest to drag to make a pyramid?
- Which material would be the strongest to use as a floor tile?

Toys & Nice things

- Which fabric would make the softest blanket?
- The baby has spilt her drink, which material would absorb the drink the best?
- We want to make a really slippery slide: which liquid would be best to use?
- Which chocolate will melt the fastest on a warm plate (a model of a warm hand)
- Which wrapping papers are strong enough to wrap and send a present?

Clothing & Materials

- Which material could be used to make a waterproof hat for the teacher when she is on the playground at playtime?
- Which plastic would be flexible enough to make a belt?
- Which material could I wrap my ice egg / snowman in to stop it melting, or would it make it melt quicker?
- What could I wrap a chicken egg in to keep it warm when it is waiting to hatch?
- What could you paint on the runaway gingerbread man that would allow him to swim the river and get away from the fox and not turn to mush?

Future Learning

In Year 2 children will:

- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
- Find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Teaching Ideas

Comparative tests	Identify & Classify	Observation over time	Pattern Seeking	Research	BIG Question – Assessment Opportunity
Which materials are the most flexible? **Which materials are the most absorbent?**	We need to choose a material to make an umbrella. Which materials are waterproof?	What happens to materials over time if we bury them in the ground? What happens to shaving foam over time?	Is there a pattern in the types of materials that are used to make objects in a school?	How are bricks made? Which materials can be recycled?	What are the things I use made from?