Topic Title: Marvellous Materials Year 2 Term: Spring 1



Skills Taught:

- Identification of everyday materials and the ability to discuss why materials are used for different purposes.
- Classification of materials according to their uses.
- Compare materials to others according to their properties and uses What would make the best shoe for Cinderella, building material for the three little pigs, container for a pirate's treasure?
- Observation of the behaviour of materials when forces are applied bending/ squashing/twisting and stretching
- Recording of observations
- Perform simple tests to test the properties of materials waterproof/ magnetic/ floats
- Make simple predictions for the above

Immersion Activity/Provocation: A treasure chest has just been discovered washed up upon a sea shore, however everything inside is wet, how can we make sure the Pirate's Treasure is safe next time?



Key question?

How can we use and change everyday materials?

Big Questions:

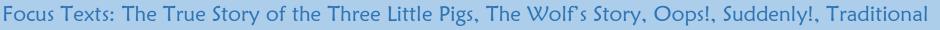
Why do we use different materials for different things?

Why might we use different materials for the same object plastic spoon, wooden spoon and a metal spoon?

Which solid materials can change when they are bent stretched squashed or twisted?

Topic Title: Marvellous Materials!

Enquiry Question: Why are some materials more suitable than others?



Tales



	Skills and Knowledge
Some children will:	 Identify and describe materials and compare them to other materials based on their properties. Explore the practical use of everyday materials
Most children will:	 Know the difference between an object and what it is made from. Identify a variety of everyday materials such as wood, glass, plastic, metal, water and rock. Describe the simple physical properties of a variety of everyday materials Compare and group together materials on the basis of their properties Find out and be able to verbalise how some solid materials can be changed by squashing, bending, twisting and stretching. Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, and paper/cardboard for particular uses. Ask simple questions to investigate Perform simple tests using simple equipment and make observations Use observations and ideas to suggest answers to questions posed Ask relevant questions Understand that people have developed useful new materials – John Dunlop/ John McAdam
Some children will progress further and will:	 Set up a simple experiment to compare materials and consider fair testing. Make observations and gather data in a way that helps to answer questions Present findings from enquiries and give oral and written presentations of results and use these to draw conclusions.

Enrichment/Outdoor Learning: Litter and its impact on the environment – Link to recycling – Recycling Super Hero

Animations and videos:

https://www.science-sparks.com/materials-ks1/

https://www.youtube.com/watch?v=e5h5RgiagrU

https://youtu.be/i6Vdz3wYREI

Previously on....(Links to prior learning)

Link to Year 1 learning:

Distinguish between an object and what it is made of

Identify wood, plastic, glass, metal, fabric, water, elastic, foil and rock

Describe properties of everyday materials

Key Vocabulary:

Materials/ objects/ use / suitable and unsuitable/

Compare/ observe/ measure

Matter/ names of materials/

Change/ squashing/ bending/ twisting and stretching – application of a force

Float/sink/Waterproof/ Absorbent

Hard/soft/dull/shiny/ transparent/ opaque/ translucent

Test/ fair test/ results

Cross-curricular links:

Information writing - Observations/ Recycling Benefits

Data handling – sorting and classification / Tables/ Diagrams

D&T – Design a cover for the treasure/ Improvemnets

Geography – Pirate Maps

Celebration of knowledge and skills gained (opportunities for assessment):

- To play a loop game with materials and their properties and uses.
- Link to a design task Pirate Treasure (see above)/ Stretchy Superhero Toy
- What is the best material for ???? Quiz

Non-fiction texts: