Year 2 – Materials

Working Scientifically	Sticky Knowledge	Linked Texts	Key Scientists
- Recall and use specific scientific vocabulary accurately (year group key vocabulary). - Ask simple questions and recognise answer many differ, use simple secondary sources. - Observe closing, using simple equipment. - Perform simple tests. - Identify and classify. - Use their observations and ideas to suggest answers to questions. - Gather and record data to help in answering questions. - Record and communicate findings using simple scientific vocabulary.	Materials can be changed by physical force (twisting, bending, squashing and stretching) From Yr1 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.	***The Tin Forest*** *(Helen Ward)* ***Traction Man*** *(Mini Grey)* ***Three Little Pigs*** *(Lesley Sims)*	William Addis (Toothbrush Inventor) John MacAdam (roads) Dr Pearl Agyakwa (materials scientist)

Key Question(s):	Key Question(s):	**WS vocabulary**
Can you describe the properties of wood? What is similar about plastic, metal and wood? Which material would be most suitable to make a raincoat out of? Explain why. Why is glass a suitable material to create a window? Describe two ways you can change the shape of an object. How does a surface change the way things move?	<u>Clothing & Materials</u> • 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?	Investigation, enquiry, what to change, what we used, what we did, what we found out, chart, table, group, compare, observe, sort, classify, record, accuracy, test

Teaching suggestions in Enquiry types					
Comparative tests	Identify & Classify	Observation over time	Pattern Seeking	Research	BIG Question – Problem solving
Which shapes make the strongest paper bridge? Which material would be best for the roof of the little pig's house? 	Which materials will float and which will sink? Which materials will let electricity go through them, and which will not? Which materials are shiny and which are dull? 	How long do bubble bath bubbles last for? What will happen to our snowman? 	How do materials change with heat? *leave outside in sunshine/windowsill/radiator* How does amount of water affect the strength of a kitchen towel? 	How have the materials we use changed over time? How are plastics made? 	Can we change materials? How do we choose the best material? (Also use EXPLORIFY) Assessment Opportunity