

Y2 Science – Materials

Targets to be covered:

In Year 2 children will be taught to:

- squash, bend, twist and stretch certain objects and describe how the material makes the shape change
- recognise that certain objects can be made using different materials
- recognise that certain materials can be used for more than one purpose e.g. wood can be used for matches and floors
- identify the suitability of everyday materials for particular uses.

Working Scientifically –

1. Observe closely, using simple equipment.
2. Perform simple tests.
3. Use their observations and ideas to suggest answers to questions.
4. Gather and record data to help in answering questions.

Lesson	Order of Study –
1	<u>LI. I can recognise that certain materials can be used for more than one purpose e.g. wood can be used for matches and floors.</u> <u>Scientific Enquiry:</u> PRE-ASSESSMENT Review: what is a material? – discussion Look at materials and everyday objects powerpoint and discuss that a range of objects are made from the same materials and yet can look and feel very different. Can the children think of any other examples? Can they see any around the classroom? Children to complete sheet with a range of objects using materials in a range of ways. <u>Learning Journey</u> Today I have learnt that _____
2	<u>LI. I can squash, bend, twist and stretch certain objects and describe how the material makes the shape change.</u> <u>Scientific Enquiry: pattern seeking</u> Review: Children to list a range of materials that can be used for more than one purpose. Discuss what these terms might mean and ask children to use their bodies to demonstrate these different movements. Explain these terms in a scientifically and discuss how we could perform them working scientifically. Look at a range of everyday items and discuss how we could change the shape of each one. Items can include: a sponge, a straw, a pencil, some string, elastic bands, a rock and plasticine. Ask children to make predictions for the items without touching them.

	In small groups, children can then explore by, stretching, twisting, bending and squashing the items. Ensure that children understand that it is important to observe closely so that they can share their results. Children to gather their data and record it accurately in their tables. <u>Learning Journey</u> Today I have learnt that _____
3	<u>LI. I can identify the suitability of everyday materials for particular uses.</u> <u>LI. I can recognise that certain objects can be made using different materials.</u> <u>Scientific Enquiry: comparative and fair testing</u> Review: What do the terms 'squash, bend, twist and stretch' mean? Explain to the children that they are going to be designing a boat that floats on water. It is important to choose materials that will suit this experiment and so they need to use their knowledge from previous lessons to select the right material. Put the children into groups and then ask them to select which material they will use and explain why. <u>Learning Journey</u> I think my boat will _____ because _____
4	<u>LI. I can identify the suitability of everyday materials for particular uses.</u> <u>LI. I can recognise that certain objects can be made using different materials.</u> <u>LI. I can observe closely, using simple equipment.</u> <u>LI. I can perform simple tests.</u> <u>LI. I can use my observations and ideas to suggest answers to questions.</u> <u>LI. I can gather and record data to help in answering questions.</u> <u>Scientific Enquiry: comparative and fair testing</u> EXPERIMENT – Children are going to create their boats and see if their chosen materials were suitable. Children make boats and then one group at a time can test out their boat. Use a table to write up the results. Which materials worked and which didn't. Can the children explain why we got those results? Stick photos into books with the results table. <u>Learning Journey</u> The materials that were most suitable for the boat were _____. I think that these materials worked because _____. If I was to do this experiment again, I would change _____. POST-ASSESSMENT