# sciencebug

# Y2/P3 Uses of Materials

# Lesson 2

#### **National Curriculum objective**

Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.

# Learning outcomes

- Children will have recognised that it is important for objects to be made from suitable materials.
- Children will have recognised that the same type of object can be made from different materials.

# Activity: Looking at objects' materials and their suitability

- Ask children to call out all the different materials they can see around the classroom.
- Ask them to state why they think different objects are made from different materials (e.g. 'A chair is made from plastic because plastic is strong').
- Give children samples of wood, different metals, plastic, glass, brick, rock, paper, tissue paper, cardboard, rubber, different fabrics, catalogues, magazines and forks made out of plastic, metal and wood. Ask them to identify pairs they think are similar. Ensure children state what the similar properties are (e.g. 'Wood and rock are similar because they are both hard').
- Show children Spot the difference (Y2 UOM ITR 1), a photo slideshow with examples of similar objects made out of different materials. Question children about why these objects can be made from the variety of materials they are, and about how suitable these materials are.
- In pairs, children list all the different materials that can be used to make something with which they can either write or make scratch marks. Ask them to collect some mark-making objects from the classroom (pencils, crayons etc.) and provide them with forks made out of plastic, metal and wood to try. Give them a thick piece of card to test the mark-making objects. Which materials make a mark? Which materials are used to hold the mark-making materials?
- In groups, ask children to think of other objects that can be made from different materials (e.g. clothes, toys etc.). Record these objects, noting the materials from which they are made. Children could use magazines, catalogues and the internet for ideas; they could, for example, cut out catalogue pictures of toy trains made from different materials (wood, plastic, metal), stick the pictures together and draw around them to identify them as a set. They could then add labels identifying the materials from which they are made.

# Differentiation

#### Support

• Ask children to pick out all the materials with a certain property, e.g. all the soft or flexible materials.

#### Extend

Ask children to express which material they think is best for any of the objects, giving reasons for their choices.

# **Equipment and materials**

Material samples, including wood, different metals, plastic, glass, brick, rock, paper, tissue paper cardboard, rubber, different fabrics, catalogues, magazines and forks made out of plastic, metal and wood.

# Resources

Spot the difference (Y2 UOM ITR 1)



# Learning outcome

 Children will have understood why it is important that objects are made from a suitable material.

# Activity: Identifying properties of materials

- Ask children questions about why objects are not made out of particular materials. (E.g. Why is a toy for cuddling in bed not made from glass? Why are wellington boots not made from tissue paper?)
- Show children What would happen if ...? (Y2 UOM ITR 2), examining the pictures of objects made from very unsuitable materials. Ask pairs to discuss what would happen if the objects were made of the suggested materials. Take some suggestions before asking a child to click and reveal the answer.
- Working in small groups, children list some unsuitable materials for some of the objects they use in the classroom (e.g. an eraser made from metal or a pencil made from fabric).
- In the same groups, ask children to generate their own "What would happen if ...?" questions similar to those on the ITR.
- Groups share some of these questions with the other children in the class, discussing their answers.

### Resources

What would happen if ...? (Y2 UOM ITR 2)

