

2. Using wood in pencils

Children consider how wood is transported and how wood is stuck to pencils.

OBJECTIVES

- To describe the simple physical properties of a variety of everyday materials

BEST GLUE FOR WOOD

Key ideas:

- Some glues are more effective than others at sticking wood

Describe to the children the way in which pencils are made, i.e. the lead is glued between two wooden pencil halves. The book 'Making Pencils' illustrates this process. Children can examine pencils closely to try and find the join.

Using small off cuts of wood, the children are asked to find out which is the best glue for sticking two pieces together.

To encourage fair testing, children use the same amount of glue each time (e.g. a teaspoonful), spread over the same area, and left to dry for the same length of time.

The children can test the strength of the join by simply trying to pull the two pieces of wood apart.

This activity can be extended to include sticking other materials together, e.g. paper to wood, card to card, etc. Children should find that different adhesives are suitable for sticking different materials together.

Resource ideas:

wood pieces (off cuts)
blu-tack sticky tape
range of adhesives,
e.g. PVA glue, cellulose
paste, Pritt stick, UHU
glue, balsa cement, etc.

TRANSPORTATION IN WATER

Key ideas:

- Some materials float in water whilst others sink
- Logs are transported in water because wood floats

Children begin by investigating a range of objects, finding out whether they will float or sink. This can be done by prediction, backed up with reasons, followed by observing what happens when each object is placed in the tank of water.

Show children the picture in the story again, which illustrates the means by which large logs are transported from the mountains down river.

Ask the children to find out if any other materials can be transported in a similar way. Set up a piece of guttering (obtained from DIY stores), to act as a river. Hold the guttering in place at a slight (5°) angle with large lumps of plasticine. The 'river' can flow from a watering can, down the guttering and into a large water-play tray. Predictions made should have improved after carrying out the floating and sinking activity. Objects can be added to the water to find out which will move to the end of the river.

Resource ideas:

plastic tank or similar
watering can objects
representing a range of
materials, e.g. pencil,
rubber, pencil sharpener,
paper, sponge, ruler,
rubber band, table-
tennis ball, scissors,
paper weight, feather,
marble, comb, etc.
plasticine piece of
guttering