

53. Which material would be best to make an umbrella?

You will need: selection of materials cut into squares of approximately 10cm² – drawing paper, paper towel, newspaper, kitchen roll, bin liner, tinfoil, tissue paper, fabric, felt, fur (enough for one sample per pair); pipettes; plastic cups; elastic bands; water.

- ◆ Give the children the selection of materials and tell them they need to test each material to see if it would be any good to make an umbrella.
- ◆ Ask them what an umbrella would need to be like (encourage them to suggest 'waterproof').
- ◆ Tell them that they are going to test the different materials available to see if they are waterproof.
- ◆ Explain that they will need to secure the material to the cup and slowly drip the same amount of water into the middle of each piece of material with a pipette. If there is water in the cup afterwards, the material is not waterproof.
- ◆ Group children into pairs. Allow time for each pair to test all the materials available. Put them in the order of most waterproof, using 1 as most waterproof and 10 as the least.

Talk about/discuss:

- ◆ Help the class to discuss methods and results. Did they notice that some of the materials absorbed the water and got wet?
- ◆ Which material did they find to be the best?

More ideas:

- ◆ As a design-and-make task, encourage the children to make an umbrella with the material they found to be the best. The umbrella does not need to shut.