

# Strong strips

The children must work together in this activity to develop their investigative skills.

## Resources

A ball of string, glue, yoghurt pots, 5 cm lengths of wooden dowelling, a set of classroom weights or a collection of marbles, and 2 cm wide strips of various paper samples – tissue, cartridge, brown, newspaper, crepe.

## What to do

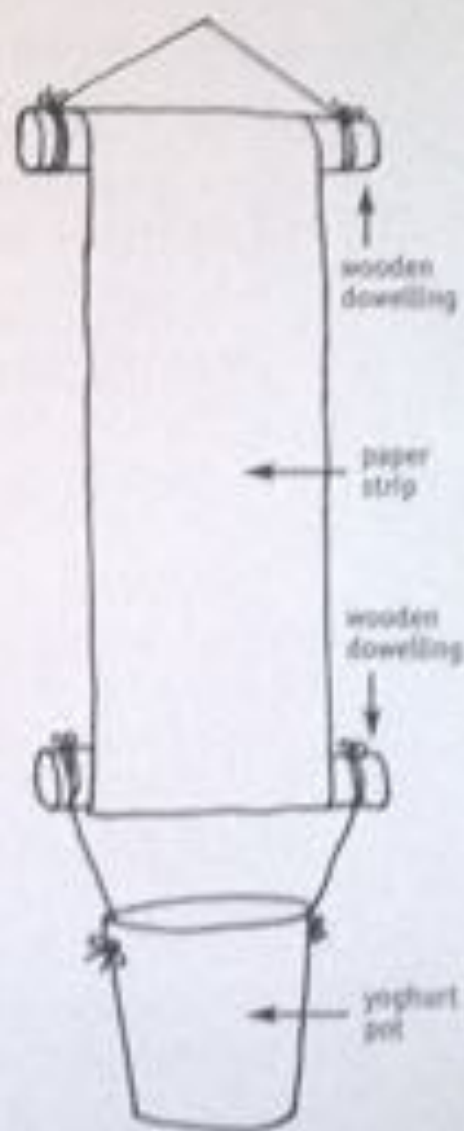
Show the children the paper strips and explain that you want them to devise a way of finding out the relative strengths of different papers. Show them the materials that they will have available to help them.

Put the children into groups of five or six. Give them time to devise a method for testing the strength of each sample. Call the groups back together and allow each of them to share their suggestion. Explore how well each method allows accurate comparisons to be made between the samples. You may need to discuss the importance of collecting accurate data to analyse.

Allow the groups to carry out the investigation using their method or the one shown in the diagram opposite. Ask each group to share their results in turn.

## Comments

It is interesting to talk about any variations in the results and how these might be explained. You can discuss how it is important to make sure the children carry out a fair test.



# A warm bed

This investigation requires a combined effort to reach a conclusion.

## Resources

Enough identical boxes and small glass bottles with lids for one of each per group, a thermometer per group and a selection of materials to make nests – shredded paper, dry leaves, cotton wool, wool, feathers.

## What to do

Put the children into groups of five or six. Explain that they are going to try to find the best nesting material for a mouse. Each group places a sealed bottle of hot water – their mouse – into a box lined with a similar amount of one of the nesting materials. They will need to take the temperature of their water at the beginning of the investigation and at each fifteen-minute interval for the next two hours.

Gather the groups together at the end of the investigation to compare results and decide which nesting material was the best at retaining heat.

## Comments

Please bear in mind that this investigation uses hot water.

It's important to take each temperature as quickly as possible to avoid unnecessary heat loss. This may require the help of an adult.

It's a good idea to discuss nesting materials with the children prior to the lesson. They could suggest materials to test. Also, ask the groups to predict which material will be the most effective insulator.