5. The findings

90 mins

Children write a letter to industry, based on their findings. They suggest ways to ease the stirring of liquids.

OBJECTIVES

- Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

INTRODUCTION (20 MINUTES)

It is important to draw together all the work done in these activities. The work has introduced the children to properties of liquids, such as the ability to take up the shape of the container into which they are put. It has drawn their attention to different liquids having differing thicknesses (viscosities). Ask some of the following questions, some of which are repeated from earlier activities:

- *What makes all liquids the same?* Liquids flow.
- *How are liquids different from solid things?* Liquids take the shape of the container.
- *How can the runniness of 'thick' liquids be changed?*
- *Are there times when thick liquids are useful?* Can they give some examples of thick liquids which are used in everyday life? Glues, paints, custard, tomato ketchup.
- *Why are thick liquids sometimes useful?* Non-drip paints; glue stays where it is put!
- *When is it more useful to have thin liquids?* When liquids need to be transported through pipelines, or stirred; car engine oil needs to flow easily around the pistons at any temperature, even in very cold countries.

This activity can be carried out in Literacy or ICT lessons. The latter can include word processing, cutting and pasting, and inserting bar charts into reports. Using their knowledge and understanding of measuring and changing runniness, they can advise the company of their findings, as requested in the letter, which asked what the company could do to reduce the effort and energy used to stir or move a liquid.

The children should decide on the format of a letter or e- mail, and consider the needs of the people to whom they are writing. They will need to ask the following questions:

- *Who are you writing to?* The Research Director of the company will be a scientist; the Managing Director may not be a scientist.
- *What sort of information will the person need?* The scientist will look for details of the investigations, and numerical results and graphs; the manager will be interested in general information about your findings.
- *What is the best order to put the information in?* The scientist will want the details of what you decided to do, why you made those decisions, and how you set up the investigation, while the manager will probably look for an overall summary of the work.

MAIN ACTIVITY (50 MINUTES)

Children can work in groups or individually to plan and produce their report. They prepare accompanying documents (or attachments) to validate their claims/ conclusions. Documents can include diagrams, tables, graphs, etc.

PLENARY (20 MINUTES)

Each group presents their letter/e-mail to the rest of the class.