

## HEAVY AND LIGHT

**THINKING SKILL:** enquiry, reasoning

**SUBJECT LINK:** mathematics

**LEARNING LINK:** visual

**ORGANISATION:** groups

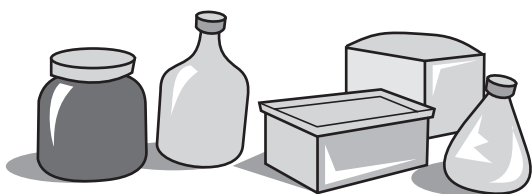
**RESOURCES:** several containers of different shapes and sizes with different amounts of dry sand or water so that they weigh different masses (groups should be given either sand or water containers); bottles and containers with lids; dry sand; water; empty containers; plastic sheeting (label all of the cartons in each group with numbers)

### WHAT TO DO

- Pass the parcels or bottles around so that you can all feel how heavy they are.
- Decide which is the heaviest and lightest.
- Now place the other parcels or bottles in the right order according to how heavy or light they are. Number the order, from lightest to heaviest. Write on your sheet whether you are testing water or sand.
- If you are testing sand, pair up with a group testing the water bottles and vice versa.
- Check each other's answers.

### NOW TRY THIS

1. Work in your group to find out which is the heaviest – water or sand.
2. Do you think sand or water is the heaviest?
3. Next check with an adult what you will need.
4. Fill two identical containers, one with water and one with sand. Pass the containers around the group. Do you all agree which weighs more?



## CONCERTINA CHAINS

**THINKING SKILL:** reasoning, creative thinking

**SUBJECT LINK:** design and technology

**LEARNING LINK:** auditory

**ORGANISATION:** individuals

**RESOURCES:** several sheets of A4 paper cut in half lengthways; pencils, crayons or felt-tipped pens; scissors

### WHAT TO DO

- Fold your paper in half lengthways and cut out a shape.

- Open your paper. What pattern have you made?
- Now fold your paper in a concertina way. Cut out a shape (making sure the shape goes to the edge of the paper), open your paper and see what you have made.
- Try to cut out the shape of a Christmas tree or butterfly.

### NOW TRY THIS

1. Fold another piece of paper in a concertina lengthways. Cut out the shape of a heart on the edges. Open your paper and see if the holes are in the shape of a heart.
2. Fold your paper in a concertina and cut out a heart shape, but this time make sure you go to the edge of the paper with your cuts like the one in the illustration below. Open your paper. What do you notice now? You should see a row of paper hearts.

