

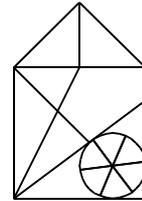
7 Further activities to promote speaking and listening

The following activities are designed for pupils who find it difficult to take it in turns to speak and listen. They do not generate mathematical discussions as such but rather offer a structured format in which pupils can speak for extended periods without interruption.

Back-to-back describing and making.

Ask pupils to sit in pairs, back to back. Give one pupil a picture or a physical object. The pupil then carefully describes the picture or object so that his or her partner can recreate it, without looking. For example:

- One pupil describes a picture (for example, a geometrical design such as the one shown here), the other tries to draw it.
- One pupil describes a 3D construction made from "Lego" or multilink cubes. The other tries to make the same construction using an identical set of material.
- One pupil gives directions to a place, the other draws the route on a map.



After each activity ask pairs to compare their product with the original. What was good about the 'describers' instructions? How might they have been changed to create a more accurate reproduction?

Defining words

Arrange pupils into pairs. Give one pupil in each pair a set of ten mathematical words. (e.g. quadrilateral, parallel, obtuse).

This pupil must try to communicate these words so that their partner can write them down, without using the words themselves, without drawing and without gesticulating in any way. They can only do this by explaining what the word means.

One variation of this game involves banning certain words from being used in the explanation. For example, the pupil may try to communicate the word 'square' without using the words 'four', 'straight sides' and so on.

Sets of cards with suitable mathematical terms (and banned words) are sold under the title "Fourbidden". These may be obtained from the Association of Teachers of Mathematics at <http://www.atm.org.uk/buyonline/products/act013.html>

