

## Fostering and managing collaborative work

'How can I get pupils to stop talking and start discussing?'

The following suggestions describe one possible approach to using the problems with pupils. This may take one or two lessons, depending on the class.

### Introduce the problem and pupils think on their own

**5 minutes**

Issue each pupil with a copy of just one of the problems. Introduce the problem to the class. In the case of Treasure Hunt, do a few moves with them on the interactive whiteboard so that they understand what to do.

Explain the purpose of the lesson and give pupils two minutes to think about the problem on their own.

*The aim of today's lesson is to see how well you can work with a partner to solve a problem. But first I want you to spend two minutes reading the problem quietly on your own so that you have time to think about the problem before you start discussing it. Jot down your own ideas on paper.*

### Pupils share their ideas in pairs


**10 minutes**

Explain that you now want them to work in pairs, taking it in turns to share their ideas.

*Now I want you to work in pairs.  
Take turns at explaining your ideas for tackling the problem.  
Listen carefully to each other. If you don't understand what is said then challenge your partner to explain themselves more clearly.  
When you have both explained your ideas, then try to agree on the best approach together.*

### Discuss some helpful ways of working

**10 minutes**

Give out copies of  [Handout 3](#) and make the point that people don't learn by simply agreeing or disagreeing, but by following these "ground rules". Ask a few pupils to say which ground rule they find most helpful.

### Pupils have another go at the problem

**25 minutes**

Ask pupils to discuss the problem again using the ways of talking in the ground rules. As

Try to listen to pupils' discussions before intervening. Then join in the group asking them gently to describe, explain and interpret without judging their responses as 'good or bad'. Above all, do not do the thinking for pupils.

If possible, tape-record one 5 minute episode of a pupil-pupil discussion, for use in the follow-up meeting.



**Pupils share solution strategies****10 minutes**


Conclude the lesson by inviting pupils to share their reasoning with the whole class. Emphasise that you want to hear *reasoning*, not just their answers. As pupils present their ideas, ask other pupils to comment on the advantages and disadvantages of each approach.

Congratulate them on the ground rules they have used and ask them to consider where they still need to improve.

**An optional activity: Pupils watch a video of other people working together**

In order to help pupils reflect on the ground rules further you may like to ask them to tackle the problem:

*How many people can comfortably stand on a football pitch?*

Show the video clip of teachers discussing the same problem (in the *Introductory session* for this module on the DVD/website). Stop the video and ask the class to discuss what was good about the discussion they saw and what could be improved. They might like to begin by commenting on the mathematics and then on the way in which the teachers discussed together. Refer again to  [Handout 3](#).