

Objectives

OHT 3.1

- To identify the characteristics of pupils who are able in mathematics
- To promote ways of using the *Framework for teaching mathematics: Years 7, 8 and 9* in planning to support and challenge able pupils
- To develop understanding of the booklet *Guidance on teaching able mathematicians*

Able mathematicians in our school

OHT 3.2

Discuss the following statements.

- We all know who are the naturally able mathematicians in Year 7.
- We need to make sure we encourage and stretch the most able – they are the mathematics teachers of the future.
- Lots of our pupils get good GCSE grades, so we must be getting it right.
- Pupils who are good at mathematics are good at most subjects.
- We know what our able pupils think of their mathematics lessons.

Provision for able pupils

OHT 3.3

Able pupils need opportunities for:

- **enrichment** – applying skills and understanding to a wider range of problems, including unfamiliar contexts, and bringing together different strands of the subject;
- **extension** – working in greater depth, with increasing complexity, subtlety or abstraction;
- **acceleration** – provided by extending the ‘pitch’ of learning objectives to those expected of older pupils or introducing objectives from later years.

Discussion questions

OHT 3.4

- Is the enrichment activity an appropriate challenge?
- What might we do to prepare the group who are going to tackle it to help them get into it?
- How might we change the problem to make it more accessible but still worthwhile?

Strategies to help match tasks to pupils' abilities

OHT 3.5

- Start pupils on a task at an appropriate level of difficulty.
- Use challenging questions to extend thinking.
- Extend and open up tasks.
- Provide focused support as the teacher.
- Organise peer support and collaboration.