

Why use this resource?

Matching displacement—time graphs with the corresponding velocity—time graphs will get students thinking about the graphical links between a function and its gradient as well as the situation the graphs could represent. There are some missing graphs that students will have to draw themselves.

This resource could also be used to reinforce the distinction between distance and displacement, and between speed and velocity.

The displacements and velocities in this resource are all 1-dimensional, but this is not mentioned explicitly in the problem to avoid unnecessary complications.

Preparation

The graph cards need to be printed and cut out.

Key questions

- Does it matter which way round the pair go?
- What features will help you match them?
- What does a positive gradient mean in a displacement–time graph?
- How is zero velocity represented in a displacement–time graph?

Possible support

Encourage students to describe situations fitting the displacement–time graphs. Having a concrete example can help them to visualise what might be happening to the velocity.