Video summary	Before watching the video	During the video
Joe Crowley explains how co-ordinates can be used to help pinpoint an exact location on a map. He explains that there are different types of co-ordinates and demonstrates how latitude and longitude can be used to plot a position anywhere on earth. Degrees, minutes and seconds are used, as well as digital forms to express latitude and longitude. Latitude is plotted according to your position relative to the equator, whereas longitude is plotted according to your position relative to the prime meridian at Greenwich. Latitude and longitude are used by GPS, or Global Positioning Satellite, technology. Joe explains that a system that's often used as an alternative to latitude and longitude when navigating using Ordnance Survey maps is a system called grid references. This uses a six figure eastings and northings method. Joe shows how the grid references work to plot a position within 100 metres.	Ask students how features can be located on a map. Show students a range of different maps at different scales, for example a 1:25,000 map and a map of the world. Ask students if how they would find a location would differ between the maps. **Introduce key terms such as:** **Latitude:** The angular distance from the equator. **Longitude:** The angular measurement from the Prime Meridian in Greenwich, London. **GPS:** Global positioning system. A satellite-based navigation system that enables users to determine a location. **Grid reference:** A system used to pinpoint locations on a map by using eastings and northings.	You may wish to stop at relevant points during this short film to pose questions and check understanding or wait until the end. Useful questions might include: • What are latitude and longitude and why are they important? • What is the prime meridian? • What is a GPS device used for? • What are grid references? • How much area does one grid square cover? • What are northings and eastings?

After watching
Use OS maps with your class asking them to pick out different locations on the map using grid references. Four-figure grid references could be used first and then six-figure grid references once students feel more confident. Students could then pick out 10 grid references on the map to test their peers with.

Students could also plan routes between two locations using grid references. They could describe the route between the two using geographical vocabulary, including compass directions. 1:25,000 and 1:50,000 maps could be used to show the differences in scale and how grid references can be used in the same way across both scale maps.

Curriculum notes	Where next?	Links
This geography topic appears in OCR, Edexcel, AQA, WJEC KS4/GCSE in England and Wales, CCEA GCSE in Northern Ireland and SQA National 4/5 in Scotland. *Map skills are also relevant across KS3 geography in England.*	The Ordnance Survey website provides a great opportunity to practice different skills and gain helpful hints and tips on all aspects of map reading.	OS map skills: https://www.bbc.co.uk/bitesize/guides/zp6kbqt/revision/5 Grid references: https://www.bbc.co.uk/bitesize/guides/z6j6fg8/revision/4 Measuring distance and grid references: https://www.bbc.co.uk/bitesize/articles/zhnrg7h