Video summary	Before watching the video	During the video
Joe Crowley explains that because maps are drawn to scale, they can be used to calculate the exact distance between two points. Maps have different scales - a popular scale is 1:25,000. Joe points out on a map that this means that every measurement on the ground is exactly 25,000 larger than shown on the map. Each map will tell you its scale on the legend section. On the 1:25,000 series, this means that one centimetre on the map equals 250 metres in the real world. One way to gauge distance is to look at the blue lines on the map which denote eastings and northings. Each line is 1km apart, so by counting how many lines your route crosses, you can make a rough calculation of distance. But routes are rarely straight, so Joe shows how to calculate length using a piece of string.	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. Show students a range of map symbols and ask whether they can identify what the symbols are representing. Ask students how much area is covered by a grid square and how they can calculate the distance between two locations. **Introduce key terms such as:** **Scale:** The ratio between a distance on a map and the corresponding distance on the Earth's surface. **Eastings:** The vertical lines on a map running from top to bottom and divide the map from west to east. **Northings:** The numbered horizontal lines on a map.	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 scale map can walkers use? • What are northings and eastings? • How can you calculate a distance on a map? • What is 1cm equivalent to on a 1:25,000 map? • What can you use a piece of string for on a map?

After watching		
Use OS maps with your class asking them to pick out different locations on the map and try to measure the distance between them. If it is a straight-line distance a ruler could be used, however if it is a not a straight line a piece of string can be used to wind between the points between the locations. This can then be held against a ruler to help measure a distance. Students could also plan routes between two locations using different types of paths. 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 the distance between two points remains the same, despite the maps looking different. If you have the opportunity to take students outside of school, this would be a great opportunity to get students practising using a map and applying to the real world.		
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