Video summary	Before watching the video	During the video
Liz Bonnin introduces a video clip exploring the movement of the San Andreas fault and its impact on the coastline of Southern California. The clip explains how our oceans are constantly changing due to plate tectonics. The team uses eggs which they cook underwater using a hydrothermal vent - confirming that they are on a fault line where the Earth's crust is slowly moving apart. They consider how this movement will eventually impact the coastline of Southern California.	Look at a map of the world divided into the different tectonic plates and look at areas where there are volcanoes and earthquakes. What do students notice about the location of tectonic activity. Locate the Sea of Cortez on a map and plot this in relation to the tectonic plates, what do students notice about this location? Ask students to predict why the scientists are using an egg in this clip. **Introduce key terms such as:** **Tectonic plates:** Slabs of crust. **Crust:** The thin layer that is the outermost section of the earth. It varies from between 5 – 70 km in depth and is broken up into several large pieces of rock which are known as plates. **Hydrothermal vent:** Cracks in the ocean floor that release geothermally heated, mineral rich water.	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 is the name of the fracture they are talking about in the clip? • How much does the Baja Peninsular move by each year? • What gives evidence of the hydrothermal vent? • How hot is the water? • Why do the eggs cook? • What does this tell us about plate tectonics?

After watching		
Discuss with students whether they were correct in their predictions about the eggs. Look at other locations where hydrothermal vents are located, such as Iceland, for example the Strytan Hydrothermal Field where scuba diving is common and it is an area of high scientific interest. Students could map these locations too. What do they notice about their location of these hydrothermal vents in comparison to the major tectonic plates of the world. Students could go one step further and locate nearby volcanoes to help them to further understand the relationship between hydrothermal vents and tectonic activity.		
Curriculum notes	**Where next?**	**Links**
This topic appears in Geography at KS3 (Plate Tectonics) and KS4 / GCSE (Plate Tectonics) in England, Wales and Northern Ireland and National 4/5 in Scotland.	Research further into hydrothermal vents and the types of careers that are available within this field of study. For example, visit the Natural History Museum website to find out more about the types of marine life that can survive in this extreme environments under the sea.	Plate tectonics: https://www.bbc.co.uk/bitesize/guides/z2vjxsg/revision/1 Plate tectonics guide for KS3: https://www.bbc.co.uk/bitesize/articles/zrcgr2p