

Video question script: Plate plenary

Question/Activity	Likely response	Rationale
<p>Activities to consolidate learning about plate tectonic theory and the evidence which supports it, including the 'Plate-riding' and 'Hand modelling of plate margins' Earthlearningideas</p>		<p>Consolidating plate tectonic understanding</p>
<p>Face in the direction of the subduction zone at the margin of the plate on which you are standing, and 'balance', as on a surfboard. Ask, What am I doing, in the context of what has been learned previously?</p>	<ul style="list-style-type: none"> • plate-riding – or surfing on a plate 	
<p>Ask: How fast am I going? In which direction am I travelling? What is happening behind me? What is happening in front of me? How can I tell I'm moving?</p>	<ul style="list-style-type: none"> • as fast as fingernails grow, cm per year • travelling towards (direction of the subduction zone) • behind – new plate material is being formed • ahead – subduction is happening • movement indicated by GPS measurements, magnetic stripe and age of the ocean floor evidence 	<p>Bridging: application of previous ideas to today's moving plate situation</p>
<p>Ask the class to discuss this with one another, and then model each of the five different sorts of plate margins with their hands</p>	<p>They should model:</p> <ul style="list-style-type: none"> • a divergent margin • convergent margins – <ul style="list-style-type: none"> ○ ocean v ocean ○ ocean v continent ○ continent v continent • a conservative margin (transform fault) 	<p>Bridging: from a plate tectonic model to a hand model</p>