

Contemporary Science Issues

Chemistry		Lesson 11: Towards a theory for formation of the Earth's Crust		
Curriculum Key:	AQA 12.6		OCR P1h, P2c	Edexcel topic 7
Objective(s) 1. Recap basic Earth's structure. 2. Recap accepted theory of Plate Tectonics. 3. Take part in evidence selection and presentation activity.		Resources needed: PowerPoint presentation (copied for each group if necessary) 10 sets of 'evidence cards' OHTs, pens, balloons, tape.		
Starter: 10 minutes Recap structure of the Earth. Student comes to the front and completes diagram. Could talk about each layer as well. Continue to <i>mind map</i> ideas about plate tectonics		Teacher input/assessment Assessment of individual student in gap filling.		
Main Activity 1: 15 minutes Introduce 5 theories of formation of the Earth's crust. Split into 5 groups and allocate one theory per group. Groups sift through evidence cards and pull out evidence to support their theory Possible demonstrations <ul style="list-style-type: none"> • cover an inflated balloon in tape. Allows the balloon to deflate and see what happens! • Blow up a balloon with spots on it. Watch as the spots move apart. • Use a convection square to demonstrate convection 		Teacher input / assessment Circulate around the room and listen in on individual discussions. Assess ability of students to select evidence and argue for or against it.		
Main Activity 2: 15 minutes Preparation of a short (2 minute) presentation on their theory. 2 people per group can present.		Teacher input / assessment Watch presentations. Assess communication skills.		
Plenary: 10 minutes Students present theories. Allow 2 minutes reflection perhaps focusing on the learning outcomes.		Teacher input / assessment Discussion at the end.		
Learning Outcomes: All students must: Take part in selection of evidence. Contribute to presentation. Most students should: Be able to give some feature of plate tectonic theory. Some students could: Prepare and deliver a presentation based on a theory.				
Key Skills: Communication, selection of evidence Key words: Plate tectonics, evidence, bias Homework:		Differentiation: More able: Active part in presentation Less able: Revision of simple Earth structure Possibly differentiate by task according to the theory assigned to groups		