

At Home Learning – Year 9

In support of students and their Earth and Space Science learning, the following is a sequence of tasks and activities that could be carried out at home.

Objectives:

At the completion of this unit of work students will:

- Understand the development of the theory of plate tectonics
- Be able to explain the geological activity that provides evidence for continental movement
- Understand the geohazards associated to tectonic plate movement

Focus	Activity/ies	WASP Support Resources
The theory of plate tectonics	 Research the development of the theory of plate tectonics 	Tectonic history- https://www.wasp.edu.au/mod/resource/view.php?id=587
	 Create your own 'tectonic plates' to explore continental fit 	Plate jigsaw - https://www.wasp.edu.au/mod/resource/view.php?id=234
	 Much of the evidence for continental drift (which led to plate tectonic theory) was from secondary data. Explore primary and secondary data 	Primary and secondary data collection - https://www.wasp.edu.au/mod/resource/view.php?id=236
	 Research supercontinents and what we can learn from them 	Supercontinents - https://www.wasp.edu.au/mod/resource/view.php?id=591
Evidence for continental movement	 Create your own model to represent seafloor spreading Explore how rocks are dated and how this helps us to understand continental movement 	Seafloor model - https://www.wasp.edu.au/mod/resource/view.php?id=246 (be very careful with the craft knife!) Rock age data - https://www.wasp.edu.au/mod/resource/view.php?id=248
	 Model the age of seafloor basalts at a spreading centre 	Magnetic stripes - https://www.wasp.edu.au/mod/resource/view.php?id=252



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Focus	Activity/ies	WASP Support Resources
Evidence for	Research polar	Polar reversal -
continental movement continued	reversals and how these have assisted us to track historical continental	https://www.wasp.edu.au/mod/resource/view.php?id=256
Plate	movements	Plate boundaries -
boundaries	 Research the major tectonic plates on Earth and the features of convergent, divergent and transform boundaries 	https://www.wasp.edu.au/mod/resource/view.php?id=275 Three types of fault -
	 Model three different 	https://www.wasp.edu.au/mod/resource/view.php?id=260
	fault types	(we suggest using plasticine or Licorice Allsorts Iollies)
Earthquakes	 Earthquakes can be associated to plate boundaries or stresses within a plate. Watch our animation to learn more 	Earthquakes - https://www.youtube.com/watch?v=FjXb97qR5C8
	 Research how earthquakes are monitored and measured 	Locating an earthquake - https://www.wasp.edu.au/mod/resource/view.php?id=287
Our differentiated planet	 Explore the history of our understanding of the structure of the Earth Research how this contributes to our understanding of tectonic plate movement 	GIC – our hollow Earth - https://www.wasp.edu.au/mod/resource/view.php?id=291
Resource extraction and earthquakes	 Investigate the potential hazards of resource extraction in earthquake prone areas 	Beaconsfield disaster - https://www.wasp.edu.au/mod/resource/view.php?id=299 Basel fault - https://www.wasp.edu.au/mod/resource/view.php?id=301
Quizzes	 Test your understanding of this unit by taking our quizzes 	Quizzes - https://www.wasp.edu.au/mod/page/view.php?id=108