

Coonabarabran High School

TAKE HOME ASSESSMENT NOTIFICATION



Subject:	Year 10 Science	Weighting:	15%
Teacher:	Ms Christoff, Mr Thomsett	Notification date:	25/2/25
Topic:	Plate Tectonics	Due date:	12/3/25

Outcomes to be assessed:

Knowledge and understanding

Sc5-12ES describes changing ideas about the structure of the Earth and the universe to illustrate how models, theories and laws are refined over time by the scientific community

ES2 The theory of plate tectonics explains global patterns of geological activity and continental movement

ES2 b relate movements of the Earth's plates to mantle convection currents and gravitational forces

ES2 c outline how the theory of plate tectonics explains earthquakes, volcanic activity and formation of new landforms

Working scientifically skills

SC5-5WS produces a plan to investigate identified questions, hypotheses or problems, individually and collaboratively

SC5-WS8 e using models to explain phenomena and make predictions

SC5-9WS presents science ideas and evidence for a particular purpose and to a specific audience using appropriate scientific language, conventions and representations

You will be assessed on how well you:

- **Conduct research using secondary sources and acknowledge secondary sources used (provide full bibliographic details)**
- **Design, plan and construct a model.**
- **Present your knowledge and understanding using models, diagrams, written text**

Task description:

In science, a model is a representation of an idea, an object, a process or system that is used to describe and explain a phenomena that cannot be experienced directly. Models are central to what scientists do, both in their research as well as communicating their explanations. A model should make a particular thing you are explaining easier to understand.

As models are representations of simplified explanations, they do not have to explain every situation or every detail. This means that scientific models are not identical to the "real world" you are aiming to simplify. Examples of models include 3D structures, animations, posters, flowcharts.

In this task you will research ONE type of tectonic plate boundary. From your research you will design, create and evaluate a model of your chosen type of tectonic plate boundary. You may complete this task about ONE of the following types of plate boundaries:

- convergent plate boundary OR
- divergent plate boundary OR
- transform plate boundary

1. **Research** what happens at your chosen plate boundary including: Describe what happens at this type of boundary. What type/s of crust is involved? What direction are the plates moving in relation to each other? What impacts and/or changes does it have on the Earth's surface? Where does this type of plate boundary exist on Earth?
2. Use your research to **design and create** a model of the plate boundary

The model you make can be 3D made of cardboard, papier mache, plasticine or poster model or an animation or something else you can think of and is approved by your teacher.

Your model should:

- be clearly labelled to identify the structure of the Earth
 - include at least one moving part that helps show what is happening at the chosen type of plate boundary
 - be useful for describing what is happening at your chosen type of plate boundary
 - be useful for explaining how your chosen plate boundary impacts and/or changes the Earth's surface
3. **Evaluate** your model. Draw a table that outlines two advantages and two limitations of using your model to explain what is happening at this type of plate boundary and the impacts on the Earth's surface.
 4. **Bibliography:** supply the details of the sources you have used to complete this task. For each source of information you use, include the following information:

<p><u>Internet source</u> Author: (if available) Title of webpage: Title of website: Date accessed: URL:</p>	<p><u>Book</u> Author: Date published: Title: Publisher Name Place published: Page(s) used:</p>
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Submission:

- Background research about chosen plate boundary.**
- Notes and sketches you made when you were designing/planning your model. Include a list of materials and equipment used to build your model. Justify your choices of materials and design.**
- Your model**
- Evaluation of your model.**
- Bibliography.**

Feedback (during and after task completion):

You will be given feedback during class lesson allocated to start task. Task will need to be completed at home. After task comments and marking rubric will provide feedback.

NOTE: This is a compulsory assessment task. You are to make a genuine attempt at the task, and all protocols relating to plagiarism, collusion, and malpractice apply. You are required to submit on the above stated date. Failing to do so may result in the awarding of the grade of 0%. If students are unable to submit by the due date, they must provide a doctor's certificate and/or an Illness & Misadventure Form. All assessment submission protocols, found in the Assessment Handbook, will be followed.

Criteria:	Marks:
Background research <ul style="list-style-type: none">● Background research thoroughly describes chosen plate boundary, its impacts on Earth's surface and where this type of boundary exists.● Full bibliographic details are included for 5 or more sources.	
Planning and designing model <ul style="list-style-type: none">● Detailed and labelled diagrams/sketches of the model are included.● Justifies choice of materials and design.● Clear links between background research and design.	
Model <ul style="list-style-type: none">● The model is detailed, well-constructed and accurately depicts the chosen plate boundary.● All appropriate labels have been included.● Model includes at least one moving part.	
Application of science understanding to model <ul style="list-style-type: none">● The moving part/s of the model are useful for describing what is happening at the plate boundary as it is described in the background research.● The model is useful for explaining impacts of this type of plate boundary on Earth's surface as it is explained in the background research.	
Evaluation of model <ul style="list-style-type: none">● Thoroughly evaluates the model.● Outlines two advantages and two limitations of the model.	

Hand this page in with your completed task

Name: _____

Marks	Research	Design	Model	Science Understanding	Evaluation
4	All criteria are thoroughly researched Full details are given for more than four sources	Detailed and labelled diagrams/sketches of the model are included with all of the materials identified and justified. Design clearly links to background research.	The model is detailed, well-constructed and accurately depicts the chosen plate boundary. All appropriate labels have been included. Model includes at least 1 moving part.	The moving part/s in the model can be used to demonstrate concepts in the background research - describe the activity produced by the boundary and explain the impacts of this type of plate boundary on Earth's crust.	Thorough evaluation of model that outlines two advantages and two limitations of the model.
3	All criteria are researched Most details are given for three sources	Diagrams of the model are labelled and identify all equipment and materials needed. Design clearly links to background research.	The model is well constructed and depicts the chosen plate boundary. All labels have been included. Includes at least 1 moving part.	The model can be used to describe the activity produced by the boundary and where it occurs. Model is consistent with background research.	Identifies two advantages and two limitations of the model
2	Most of the criteria have been researched. Some details are given for two sources	Diagrams of the model are presented with some materials and equipment identified. Some evidence of research used in design process.	The model correctly depicts the plate boundary. However, it is not labelled or not well constructed or does not have a moving part.	The model can be used for some description of the activity produced and where it occurs.	At least 1 advantage and 1 limitation stated
1	Some of the criteria have been researched. Minimal detail is given for one source	Some sketches have been presented of the model. Limited use of research in design.	The model somewhat demonstrates the plate boundary. However, it is not labelled and/or poorly built.	The model demonstrates a limited description of tectonic activity produced and where it occurs.	Has either 1 advantage or 1 limitation
0	Not shown	Not shown	Not shown	Not shown	Not shown

Comments

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