Science 10
Module 1 Blackline Masters

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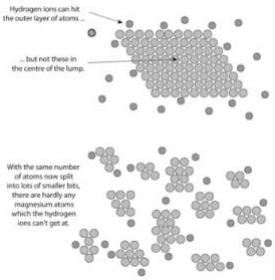
In one document (called "Naming Organic Compounds"), combine the following items from Lesson 2.3B:

- Graphic: Ethane, Ethene, Ethyne
- Graphic: Number Prefixes Used in Organic Compounds
- Table with "number of carbons" and "prefix"

SA 2.3

Symbols Used in Chemical Equations (table from Lesson 2.4A)
GP 2.4A 1: Balancing Equations
GP 2.4B 2: Classifying Reactions
Summary of Reaction Types (table from Lesson 2.4B Summary)

Surface Area and Reaction Rate (from Lesson 2.4D include the following text and the graphic (shown in the screen shot below)
"To illustrate the effect of surface area on reaction rate, let's look at the reaction between magnesium metal and dilute hydrochloric acid). The reaction involves collisions between hydrogen ions (found in the dilute acid solution) and the magnesium metal.
$Mg_{(s)} + 2H^{+}_{(aq)} \rightarrow Mg^{2+}_{(aq)} + H_{2(g)}$ "



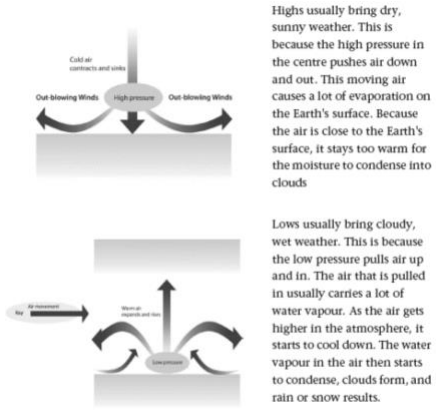
SA 2.4

GP 2.5A 2: Vocabulary Matching Quiz
SA 2.5

Mod 3

Table: States of Matter (from lesson 3.1A)
Try It Out! Heat Transfer (from Lesson 3.1B)
Summary of Heat Transfer (table from Lesson 3.1B summary)
Graphic: Energy From the Sun (from lesson 3.1D)
SA 3.1

High and Low Pressure Systems (as shown in screen capture below)

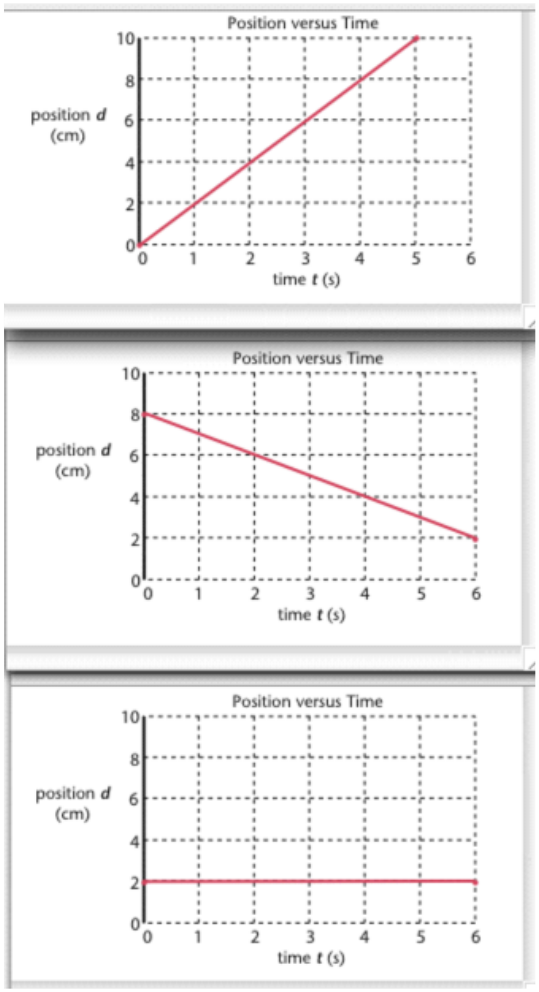


GP 3.2B 1: Weather and Pressure
SA 3.2

SA 3.3

Mod 4

Slope of "Position vs. Time" Graphs (graphics and content from Lesson 4.1D. I set it up below with screen shots to show how I'd like it set up. I only used a table to make it easier for myself – you don't need to use a table.)

Slope of "Position vs. Time" Graphs	
Positive Slope A positive slope means a positive constant velocity. The object could be moving • forward • to the right • north • east **Negative Slope** A negative slope means a negative constant velocity. The object could be moving • backward • to the left • south • west **Zero Slope** A horizontal line (zero slope) means that vav = 0. This means that the object is not moving at all	

GP 4.1D 3: Slope and Velocity
SA 4.1

GP 4.2A 2: Acceleration
GP 4.2B 2: Positive Acceleration and Velocity-Time Graphs
GP 4.2C 2: Graphing Negative Acceleration
GP 4.2C 3: Velocity versus Time Graphs
Acceleration Due to Gravity (from Lesson 4.2D. Please include the graphics and text on pg 91-92 describing motion of a ball. If possible, arrange so it fits on one page. Would be nice to have graphic on the left, text on the right. You can shrink the graphics a bit if needed)

SA 4.2

Mod 5

Energy Flow Through an Ecosystem (graphic from lesson 5.1C with sun, producer consumer, decomposer – on pg. 22)
Food Web (graphic from Lesson 5.1C - pg 27)
Food Pyramid (graphic from Lesson 5.1C - pg 30)
GP 5.1D 1: Symbiotic Relationships Chart
SA5.1

GP 5.2B 1: The Nitrogen Cycle
GP 5.2C1: The Phosphorus Cycle
SA 5.2

SA 5.3

SA 5.4

GP 5.5A 1: Looking for the Best "Fit"
Predator-Prey Cycle (graphic from lesson 5.5B showing population cycle of lynx and hare on pg 173)
GP 5.5C 1: Changing Communities
GP 5.5D 1: The Burning Question
SA 5.5

Module 5 Assignment

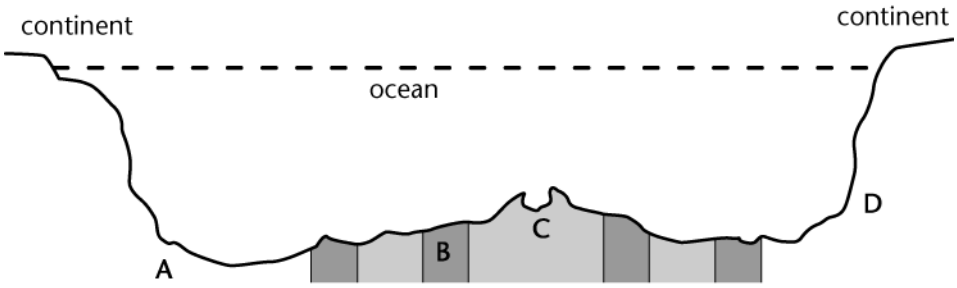
Guided Practice 1.1A 1
Evidence for the Continental Drift Theory

Each of the pieces of evidence below supports continental drift theory. Give a specific example for each piece of evidence. (You may want to look at the diagrams and key points in Section 1.1A.)

Continental Drift Evidence	Example
The “jigsaw" fit of continents.	
Paleoglaciation in unusual places.	
Discoveries of the same land-based fossils on distant continents.	
Similar mountain ranges found on distant lands.	

Guided Practice 1.1B 2
Seafloor Spreading

Examine the following diagram. Then select the lettered location that correctly answers the following questions. Note that the alternating shaded regions indicate oceanic rock of normal and reverse polarity.



____ 1. Youngest ocean floor material.

____ 2. Basalt with reverse polarity.

____ 3. Thickest ocean floor sediments are found here.

____ 4. Basalt with normal polarity.

____ 5. Oldest ocean floor materials.

____ 6. Spreading ridge is located here.

Guided Practice 1.1D 1
Try It Out! Results

Answer the following in your science notebook.

1. Describe what happened when the water was mixed?
    A. with the syrup
    B. with the cooking oil

2. Which liquid was the densest? The least dense? Explain how you know.

3. Of the three materials, which liquid represents:
    A. The Earth's core?
    B. The Earth's mantle?
    C. The Earth's crust?

Try It Out
Density Layers

This is a simple yet effective activity you can perform yourself to show how liquids of different densities act. To do so, you will need the following materials:

- a tall, clear narrow glass or vase
- measuring cup, or any container suitable for pouring
- cooking oil, corn syrup (or any sweet syrup) and water
- food-colouring dye (optional)

This exercise works best if the three liquids are of different colours. If you can't distinguish the liquids by colour, try mixing the water with food-colouring, or even a small amount of flavoured crystal mix (for example, powdered ice tea).

Procedures:

1. Pour enough water into the glass container to fill it about 1/4 full.
2. Pour an approximately equal amount of syrup into the same glass container as the water. For best results, pour slowly by tilting the container at an angle first, so that the syrup flows gently down into the water. Carefully observe what happens as the syrup and water meet.
3. Finally, pour the cooking oil (same amount as with the water) into the glass container. Use the same method for pouring as with the syrup. Again, observe what happens when liquids meet.

Guided Practice 1.1D 3
Name that Layer!

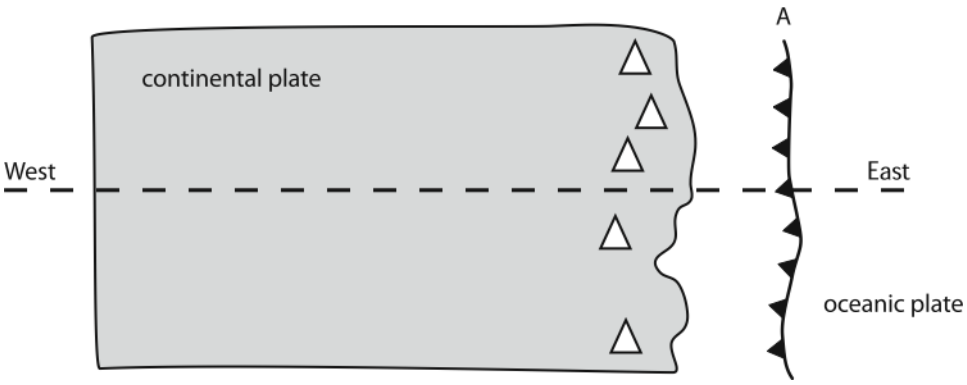
From the following list, choose the correct Earth layer to match with its definition. Note that some terms may be used more than once, and other terms may not be used at all.

crust	asthenosphere	inner core	atmosphere
outer core	hydrosphere	mantle	convection
lithosphere			

1. Plate-moving convection currents are located in this layer. _____
2. composed of two layers (crust and upper mantle) _____
3. solid, dense and magnetic _____
4. layer broken into relatively thin, rigid plates on Earth's surface _____
5. layer located between the outer core and lithosphere _____
6. composed of molten (liquid) metallic materials _____
7. the weak, plastic, semi-liquid zone within the mantle that the solid plates slide over _____
8. the thinnest, least dense layer of the Earth _____

Guided Practice 1.2B 1
Oceanic-Continental Plate Boundaries

Examine the map view of a continental coastline. Then answer each of the questions.



1. Name the feature labeled '**A**'.

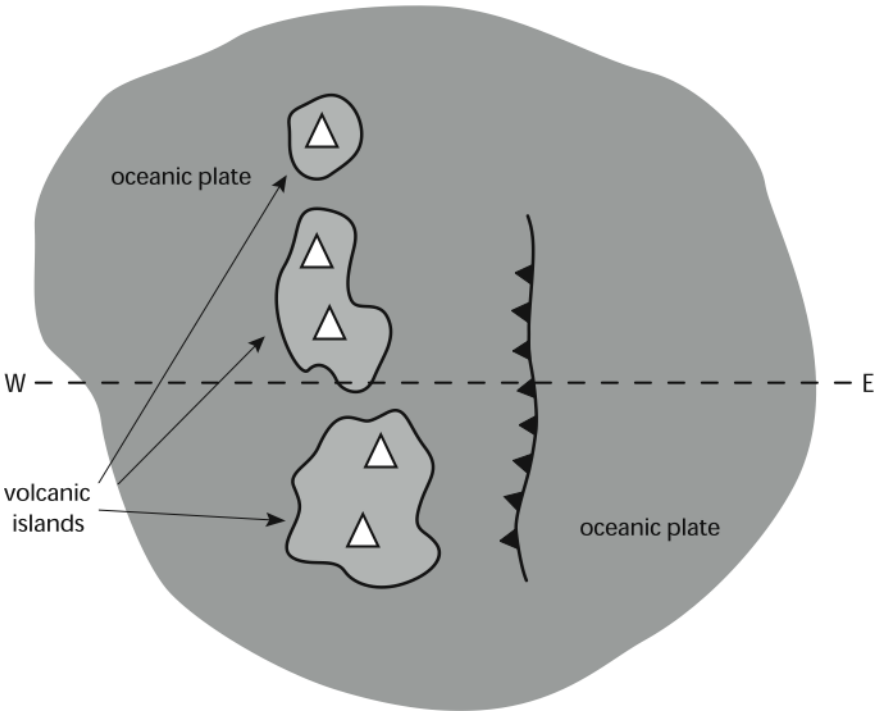
2. Which plate is being subducted: the continental plate, or the oceanic plate? Explain why the process must occur in this way.

3. Draw a cross-section diagram following the dotted line from 'W' (west) to 'E' (east). If you need help, check out the previous diagrams and review the animation first. Include the following in your diagram:

   A. labelling of all parts
   B. the correct relative thickness of plates
   C. arrows showing the correct direction of relative plate movement
   D. the correct direction of subduction, showing the formation of the volcanic mountain range

Guided Practice 1.2B 2
Oceanic-Oceanic Plate Boundaries

Examine the map view of a chain of volcanic islands. Then answer each of the questions.



1. In which direction is the trench located, relative to the islands?

2. Two oceanic plates are shown in this diagram. Which plate is being subducted: the eastern plate, or the western plate? Give two pieces of evidence to support your answer.

3. Draw a cross-section diagram following the dotted line from '**W**' (west) to '**E**' (east). Include the following in your diagram:

   A. labelling of all parts
   B. the correct thickness of plates
   C. arrows showing the correct direction of relative plate movement
   D. the correct direction of subduction, showing the formation of the volcanic island arc

Section Assignment 1.1 Part A
Tectonics and the Earth's Heat: Multiple Choice

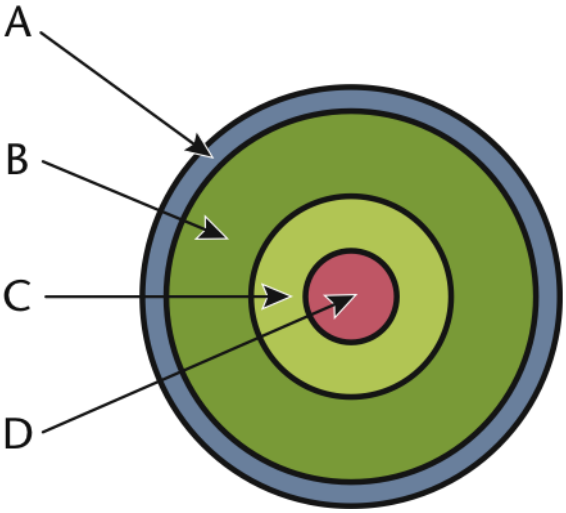
Note:

At this time, you should make sure you have completed all work from your Module 1 mapping activity. DO NOT submit the maps with this section assignment. Keep your work in a safe place. You will continue with the Part B mapping activity in the next section. Once completed, you will turn in the completed activity with your work from the next section assignment.

If you have any questions concerning the mapping activity, be sure to contact your instructor for more information.

Complete the multiple choice quiz by selecting the best answer.

Refer to the cross-section diagram of the Earth to answer questions 1–3.



1. What name is given to the layer marked 'A'?
   A. outer core
   B. inner core
   C. mantle
   D. crust

2. Which layer is thought to be *molten* iron and nickel?
   A. A
   B. B
   C. C
   D. D

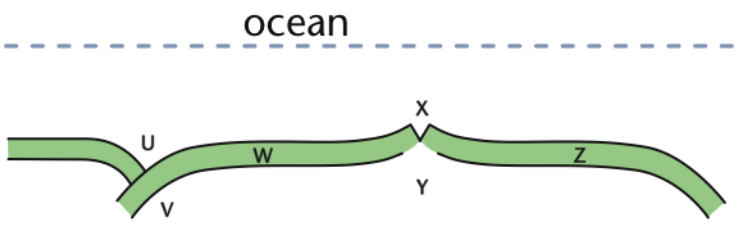
3. Within which layer are convection cells - the driving force behind plate tectonics - thought to occur?
   A. A
   B. B
   C. C
   D. D

4. Which of the following pieces of evidence was not used by Wegener to support his theory of continental drift?
   A. The coastline shapes of west Africa and east South America seem to fit together.
   B. Land-based fossils such as Mesosaurus were found only in Africa and South America.
   C. The age and thickness of oceanic sediments seemed to increase away from mid-ocean ridges.
   D. Evidence of ancient glacial features was found in warm locations such as India and Africa

5. Which of the following best describes plate tectonic theory?
   A. The movement of continental crust over oceanic crust
   B. The movement of lithospheric plates on the asthenosphere
   C. The movement of sediment from continents down to the ocean floor
   D. The Earth's magnetic field occasionally changes polarity

6. Which of the following features is associated with subduction?
   A. trenches
   B. ridges
   C. mountain ranges
   D. rift valleys

Use the cross-section diagram of tectonic plates to answer questions 7–10.



7. Where is a subduction zone located?
   A. U
   B. W
   C. X
   D. Z

8. Where is the youngest plate material located?
   A. V
   B. W
   C. X
   D. Z

9. At which location would slab pull occur?
   A. V
   B. W
   C. X
   D. Z

10. Which arrows show the correct direction of relative plate motion at **W** and **Z**?

	Motion at W	Motion at Z
A.	→	→
B.	→	←
C.	←	←
D.	←	→

Marks
20

Section Assignment 1.1 Part B
Short Sentence Answers

Answer the following questions to be handed in:

1. Explain why most scientists did not accept Wegener's continental drift theory when it was first proposed. (1 mark)

2. Describe the relationship between seafloor sediment thickness and age, with distance from a mid-ocean ridge. (1 mark)

3. Describe the steps by which Africa and South America are thought to have separated. (3 marks)

4. What are the two types of crust, and how are they different from each other? (2 marks)

5. Describe or draw a sketch of the convection process in the mantle. (2 marks)

6. Besides convection currents, *ridge push* and *slab pull* are also believed to be responsible for plate motion. Explain how each process works. (2 marks)

7. Where in the interior of Earth do geologists believe that the earth's magnetism is influenced? (1 mark)

8. Why is the inner core solid despite its enormously high temperatures? (2 marks)

9. A. Which rigid zone on the Earth's surface forms the earth's “drifting” tectonic plates? (1 mark)

   B. On which zone within the upper mantle are these drifting plates allowed to slide? (1 mark)

   C. Explain why tectonic plates are able to slide along on top of this zone. (1 mark)

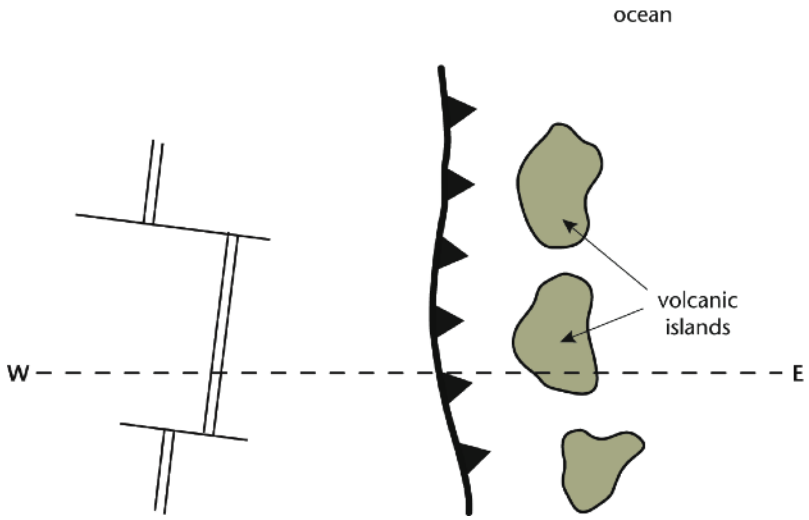
10. When an oceanic plate and a continental plate collide, the oceanic plate subducts under the continental plate. Explain why this happens. (2 marks)

Marks
19

Section Assignment 1.2 Part A
Cross-Section Diagram

Examine the map, showing volcanic islands, as well as map symbols showing other plate tectonic features in the ocean. Using the **W-E** line that cuts the diagram, draw an accurate cross-section showing the following:

- a profile of all the features shown on the map: each feature should be labelled correctly, with a dotted line to show "sea level" (3 marks)
- arrows drawn on the ocean floor showing where plates are diverging (1 mark)
- arrows drawn on the ocean floor where plates are converging (1 mark)
- an explanation below your diagram of how the volcanic islands formed Be as detailed as you can in your description. You can refer back to your Guided Practice problems from lesson 1.2B if you need assistance with this. (3 marks)



Marks
8

Section Assignment 1.2 Part B
Matching

Match the following terms with the correct statement. Note that some terms may be used more than once, and other terms may not be used at all.

1. a region where plate material is destroyed and volcanoes form _____ 2. the fastest form of energy produced by an earthquake _____ 3. a boundary where one plate slides horizontally past another plate _____ 4. location of new plate material _____ 5. slowest form of energy produced by an earthquake _____ 6. surface location where an earthquake's energy is first felt _____ 7. volcano formed by alternating eruptions of ash and lava _____ 8. region of deep focus earthquakes _____ 9. a form of energy produced by an earthquake that can't travel through liquids _____ 10. source of mantle plumes not associated with a plate boundary _____	a. composite volcano b. epicentre c. focus d. hotspot e. P-wave f. shield volcano g. surface wave h. S-wave

Marks
10

Section Assignment 1.2 Part C
Multiple Choice Quiz

Complete the quiz by selecting the best answer.

1. Which of the following processes would you expect to take place at a diverging boundary?

   A. rift eruptions

   B. deep focus earthquakes

   C. plate destruction

   D. mountain building

Use the list of plate boundaries in the table to answer the following three questions.

I	continent-continent converging boundary
II	continent-ocean converging boundary
III	ocean-ocean converging boundary
IV	transform fault boundary
V	diverging boundary

2. At which type of plate boundary are volcanoes unlikely to be found?

   A. I only

   B. III only

   C. I and II

   D. I and IV

   E. II, III and V

3. Which boundary is marked by a deep-sea trench?

   A. II only

   B. V only

   C. I and III

   D. IV and V

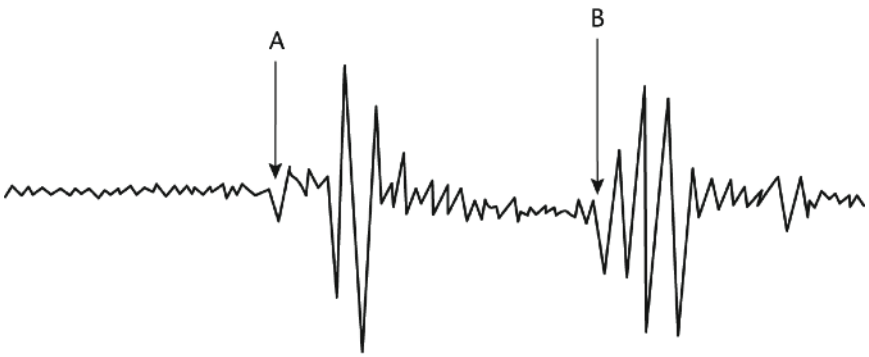
4. At which type of boundary are earthquakes common?
   A. I and IV
   B. II and III
   C. I, II, and III
   D. I, II, III, IV and V

5. Which term is used to describe the underground origin of an earthquake's energy?
   A. epicentre
   B. elastic rebound
   C. creep
   D. focus

6. How does a rock mass move during the passage of an S-wave?
   A. parallel to the direction of travel
   B. perpendicular to the direction of travel
   C. in a rolling motion like an ocean wave
   D. the movement depends on how the earthquake was created

7. Which of the following are examples of body waves?
   A. S-waves only
   B. P-waves only
   C. Both P and S waves
   D. Love and Rayleigh waves

A seismogram of a typical earthquake, measured 15 km from the epicenter, is shown here. Use this information to answer the next two questions.



8. What do the two sections of the seismogram represent?

   A. Section A represents the P-wave, and section B represents the S-wave.

   B. Section A represents the S-wave, and section B represents the P-wave.

   C. The seismogram cannot be interpreted without records from at least two other locations.

   D. Either A or B could represent P- or S-waves.

9. Another seismogram measured the same earthquake 30 km from the epicenter. How will the pattern of P- and S- waves appear?

   A. They will be the same distance apart as on the seismogram above.

   B. They will be closer together than on the seismogram above.

   C. They will be farther apart than on the seismogram above.

   D. They will be directly on top of each other.

10. Which of the following statements about volcanoes on the Hawaiian Islands is correct?

I	wide and gently sloped
II	produce explosive pyroclastic eruptions
III	formed by subduction
IV	associated with hotspot activity

   A. I only

   B. III only

   C. II and III

   D. I and IV

Marks
10

Section Assignment 1.2 Part D
Short Paragraph Responses

Choose three out of the five following pairs of terms. For each pair, write a short paragraph comparing the terms.

A. seismograph and seismogram

B. pyroclastic eruptions and lava eruptions

C. body and surface waves

D. earthquake focus and epicenter

E. rift valley and trench

Marks
6

Module 1 Assignment
Mapping Plate Boundaries
(Part A)

Your objective in this activity is to locate various surface features on a world map, as well as determine any distribution patterns between them.

This is a two-part assignment.

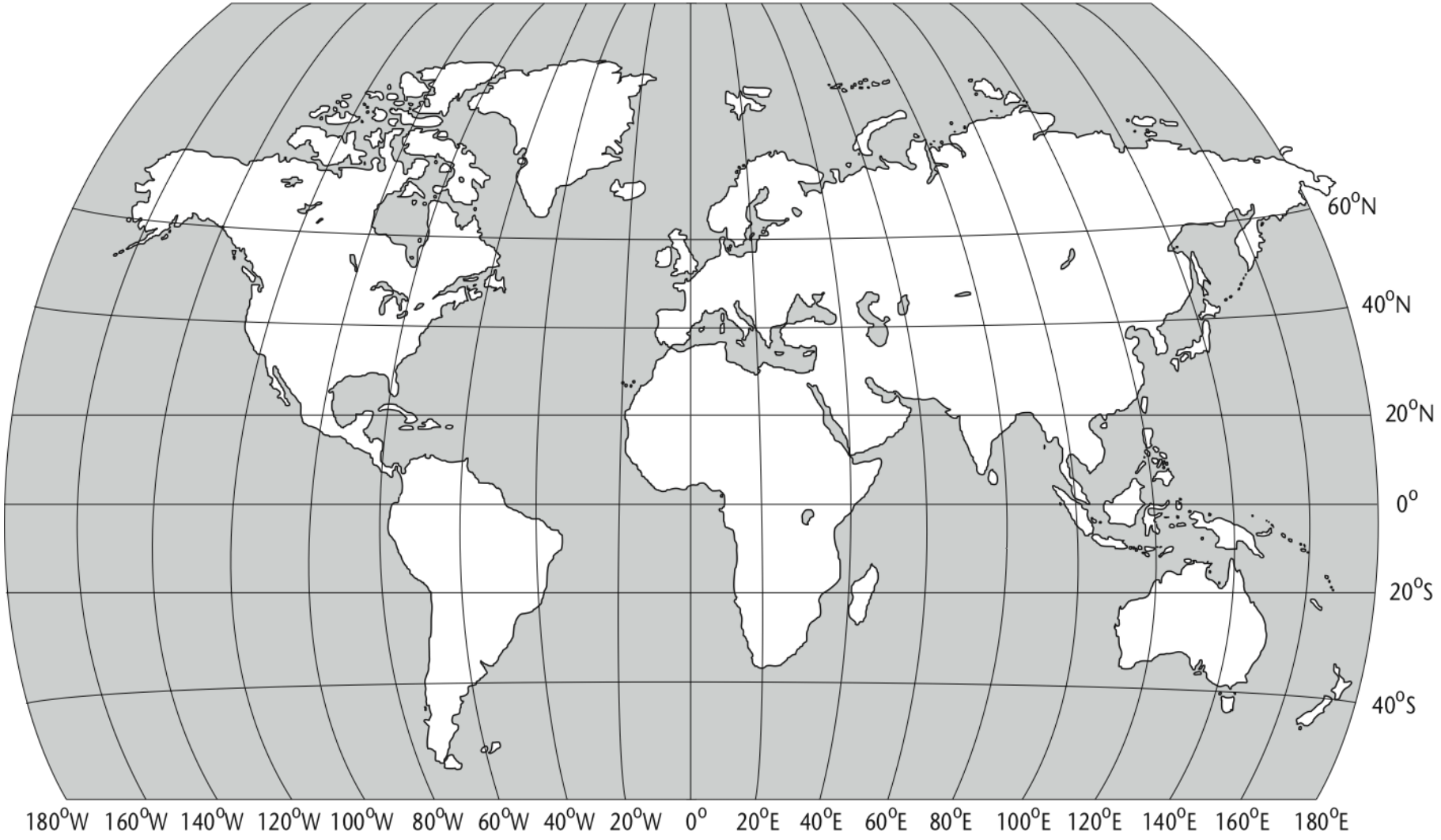
You will complete Mapping Plate Boundaries Part A here, and Mapping Plate Boundaries Part B in Section 1.2. Once complete, you will be asked to turn in the entire activity with Section Assignment 1.2. **DO NOT** turn in this activity with Section Assignment 1.1. If you have any questions, especially about reading latitude and longitude, please contact your instructor for more information.

The materials provided for you are:

- a physical world map showing major mountain ranges, mid-ocean ridges and deep-sea trenches (look on your *Science 10 Media CD* for this map)
- a blank world map with latitude and longitude coordinates (this will be referred to as your **working map** and can be found on the next page)
- tracing paper to overlay on your *working map*

What you will need:

- regular pencil
- red and blue felt pens or pencils
- black felt pen (optional)


60°N
40°N
20°N
0°
20°S
40°S
180°W 160°W 140°W 120°W 100°W 80°W 60°W 40°W 20°W 0° 20°E 40°E 60°E 80°E 100°E 120°E 140°E 160°E 180°E

Part A Procedures:

1. **Table 1** shows the locations of various earthquakes around the world over the last century. Plot each earthquake location as an **"X"** on your *working map*. Note that some locations may overlap.

Table 1

Year	Place	Latitude (°)	Longitude (°)
1906	San Francisco, Ca.	37 N	122 W
1906	Valparaiso, Chile	33 S	72 W
1911	Tien Shan, China	44 N	78 E
1923	Tokyo, Japan	36 N	140 E
1927	Nan Shan, China	37 N	102 E
1934	Bihar, India	28 N	85 E
1935	Pakistan, north	34 N	73 E
1939	Erzincan, Turkey	35 N	39 E
1948	Fukui, Japan	36 N	136 E
1950	Assam, India	29 N	97 E
1962	Iran, northwest	38 N	48 E
1964	Seward, Alaska	61 N	147 W
1972	Iran, south	30 N	57 E
1972	Managua Nicaragua	12 N	87 W
1976	Guatemala, central	15 N	92 W
1976	Tangshan, China	39 N	118 E
1977	Argentina, northwest	25 S	68 W
1979	Ecuador/Colombia border	1 N	78 W
1982	North Yemen	17 N	45 E
1983	Honshu, Japan	37 N	137 E
1985	Mexico, west	18 N	102 W
1989	San Francisco, Ca.	37 N	122 W
1994	Northridge, Ca.	34 N	117 W
1995	Kobe, Japan	35 N	135 E
1998	Antofagasta, Chile	24 S	70 W
2002	Afghanistan	36 N	69 E
2004	Sumatra-Andaman Islands	3 N	96 E
2005	Pakistan	34 N	74 E
2006	Java, Indonesia	8 S	110 E
2007	Solomon Islands	8 S	157 E

2. **Table 2** shows the locations of various active and recently active volcanoes of the world. Plot each volcano location as a triangle directly on your *working map*.

Table 2

Name of Volcano	**Latitude (°)**	**Longitude (°)**
Vesuvius, Italy	41 N	14 E
Santorini, Greece	36 N	23 E
Nyeragongo, Zaire	1 S	29 E
Krakatoa, Indonesia	6 S	105 E
Tambora, Indonesia	8 S	118 E
Mayon, Philippines	13 N	123 E
Fujiyama, Japan	35 N	138 E
Bogoslov, Alaska	54 N	168 W
Mauna Loa, Hawaii	19 N	156 W
Katmai, Alaska	58 N	155 W
Edziza, B.C.	57 N	132 W
Rainier, Wash.	47 N	122 W
St. Helens, Wash.	46 N	122 W
Lassen, Calif.	40 N	121 W
Garibaldi, B.C.	50 N	124 W
Paricutin, Mexico	19 N	102 W
Fuego, Mexico	17 N	93 W
Coseguina, El Salvador	12 N	90 W
Cotopaxi, Ecuador	4 S	78 W
Osorno, Chile	41 S	74 W
Misti, Peru	16 S	70 W
Pelee, West Indies	15 N	60 W
Fayal, Azores	39 N	25 W
Hekla Iceland	64 N	20 W
Etna, Sicily	38 N	16 W
Nevado del Ruiz, Colombia	3 N	73 W

3. Next, take one piece of tracing paper and overlay it on top of your *working map*. Carefully trace out the following two landmasses: Greenland and Australia. By doing this, when the tracing paper is removed or accidentally shifted off the map, you will be able to line up both pages again quickly and accurately. This procedure should be repeated every time you use a new piece of tracing paper.

Note:

Physical World Map

Note: you will need to consult your physical world map for the next three procedures. Go to your:

Science 10 Media CD > Module 1 > **Physical World Map**

4. With your tracing paper carefully lined up on top of your *working map*, locate and draw, with a BLUE pencil or felt pen, a line that shows the following trenches directly on the tracing paper:

   Java trench

   Mariana trench

   Philippine trench

   Tonga trench

   Japan trench

   Kuril trench

   Aleutian trench

   Middle America trench

   Peru-Chile trench

   Puerto Rico trench

5. With the same piece of tracing paper carefully lined up on top of your *working map*, locate and draw, with a RED pencil or felt pen, a line that shows the following ridges directly on the tracing paper:

   East Pacific Rise

   Mid-Indian Ridge

   Ninety-East Ridge

   Mid-Atlantic Ridge

6. With the same piece of tracing paper carefully lined up on top of your *working map*, locate and draw, with a BLACK felt pen or a regular pencil, a line that shows the following mountain ranges directly on the tracing paper:

   Himalayas

   Rockies

   Andes

   Alps

   Appalachians

   Cascades

Once you have completed your work, keep it in a safe place. You will be continuing this mapping assignment in future lessons, and will submit the assignment at the completion of this module. Now, continue and complete the next section assignments, starting with Section Assignment 1.1 Part A: *Tectonics and the Earth's Heat*.

Marks

Final marks for Parts A and B of your Module 1 Assignment will be assigned once you have completed Part B of your Module Assignment.

Module 1 Assignment
Mapping Plate Boundaries
(Part B)

Your objective in this activity is to locate various surface features on a world map, as well as determine any distribution patterns between them.

This is a two-part assignment.

You have already completed Mapping Plate Boundaries Part A, so now you will work on and complete Part B. Once complete, you will be asked to turn in the **ENTIRE** activity (both Part A and Part B) with Section Assignment 1.2. If you have any questions, please contact yourinstructor for more information.

For this part of the mapping activity you will need:

- regular pencil
- black felt pen (optional)
- your working map from Part A
- tracing paper
- your Science 10 Data Booklet

Part B Procedures:

1. Take a blank piece of tracing paper and overlay it on top of your map. As you did in Part A, carefully trace out the following two landmasses: Greenland and Australia. Remember that by doing this, when the tracing paper is removed or accidentally shifted off the map, you will be able to line up both pages again quickly and accurately.

2. Find your copy of the world map entitled "Tectonic Plate Boundaries Map" in your Science 10 Data Booklet (*Science Media CD*). This will be your data booklet map. DO NOT confuse this with your working map that contains your marked earthquake and volcano locations.

3. With your tracing paper carefully lined up on top of your working map, locate and draw as carefully as possible **all** the plate boundaries as they are shown on the data booklet map. This includes all divergent, convergent and transform boundaries. Use a key similar to the data booklet map for labelling symbols for each type of boundary. DO NOT copy the mountain ranges or volcanoes shown - you have already done this in Part A!

4. Label all of the plates shown on the map. Also draw the arrows showing the relative direction of movement of these plates.

5. You should now have the following completed:
    - a completed working map showing all volcano and earthquake locations
    - a completed sheet of tracing paper showing all major trenches, ridges, and mountain ranges of the world
    - a second completed sheet of tracing paper showing all major tectonic plates of the world and the boundary symbols that separate them

Questions:

Now you are ready to answer the questions . These questions should be written out and completed on a separate piece of blank, lined paper. (Alternately, you may use a computer to type and print your answers if you want.)

1. What type of plate boundary is responsible for: (2 marks)

    A. the majority of volcanoes drawn on your map?

    B. most of the continental mountain ranges drawn on your tracing paper?

2. Which surface feature marks each of the following plate boundaries: (2 marks)

    A. oceanic divergent?

    B. oceanic convergent?

3. Examine the continents of North and South America on your map. Explain why most of the mountain ranges, earthquake activity, and volcanoes are located on the *west* side of these continents. (2 marks)

4. Explain why very few volcanoes and not much earthquake activity occur in such places as Australia and Greenland. (1 mark)

5. Satellite measurements show that the North and South American continents are moving apart from both Europe and Africa. (1 mark each)

    A. What does this imply about the Atlantic Ocean?

    B. Based on plate tectonic theory, what is most likely causing this process to occur in the Atlantic Ocean?

    C. What does this imply about the Pacific Ocean?

    D. Based on plate tectonic theory, what is most likely causing this process to occur in the Pacific Ocean?

6. What information does the location and distribution of earthquakes around the world give to scientists? (1 mark)

7. Based on your information, which city carries a higher risk of experiencing a major earthquake: Regina, Saskatchewan, or Vancouver, BC? Explain how you know. (1 mark)

8. Examine the Mid-Atlantic Ridge, as well as the Atlantic coastlines of both Africa and South America. Considering plate movement, explain where these two continents were likely located in the past, and how they ended up in their present positions. (2 marks)

Once you have completed your work, keep it in a safe place. You will be asked to submit the assignment with Section Assignment 1.2.

Marking Guidelines for Mapping Activity Part A and B

- Note: at this time you should make sure you have completed all work from your mapping activity. This should include the following:
    - each of the plotted features attached page-by-page in booklet format, in the following order:

Marks	Description
20	a completed working map showing all volcano and earthquake locations • 10 marks for correctly plotted earthquakes • 10 marks for correctly plotted volcanoes
8	a completed sheet of tracing paper showing al major trenches, ridges, and mountain ranges of the world • 4 marks for properly drawn trenches • 2 marks for properly drawn ridges • 2 marks for properly drawn mountain ranges
17	a second completed sheet of tracing paper showing all major tectonic plates of the world and the boundary symbols that separate them • 10 marks for all properly drawn boundary types with symbol key • 7 marks for naming plates, with arrows showing direction of plate movement
15	completed answers to the accompanying questions, on a separate sheet of paper.

Marks
60 marks / 2 = 30

Your final mark for this activity will be divided by 2 to give you a final mark out of 30.

You can submit your Module 1 Assignment, Part A and B, with your Section 1.2 Assignment.

If you have any questions concerning the mapping activity, be sure to contact your instructor for more information.