

Unit 4: Energy & Resources + Midterm Review**Energy (50% of Midterm)****1. Answer the following questions about renewable or nonrenewable resources.**

a. A (renewable/ nonrenewable) resource can be replaced in a lifetime, whereas a (renewable/ nonrenewable) resource is used and cannot be replaced in a lifetime.

b. **Check the box for renewable or nonrenewable**

	Renewable	Nonrenewable
Solar Energy		
Coal		
Natural Gas		
Hydroelectric Power		
Nuclear Power		
Wind Energy		
Oil (Petroleum)		
Biomass (Biofuel)		
Geothermal		

c. **Which of the energy resources above is used the MOST in the United States?**

d. **Which of the energy resources can we NOT find/use in North Carolina?**

e. **Which energy sources require the use of a turbine?**

f. **The sun is considered the “source” of all energy for all of the energy sources besides which TWO?**

g. Fill out the compare/contrast chart for the following energy sources

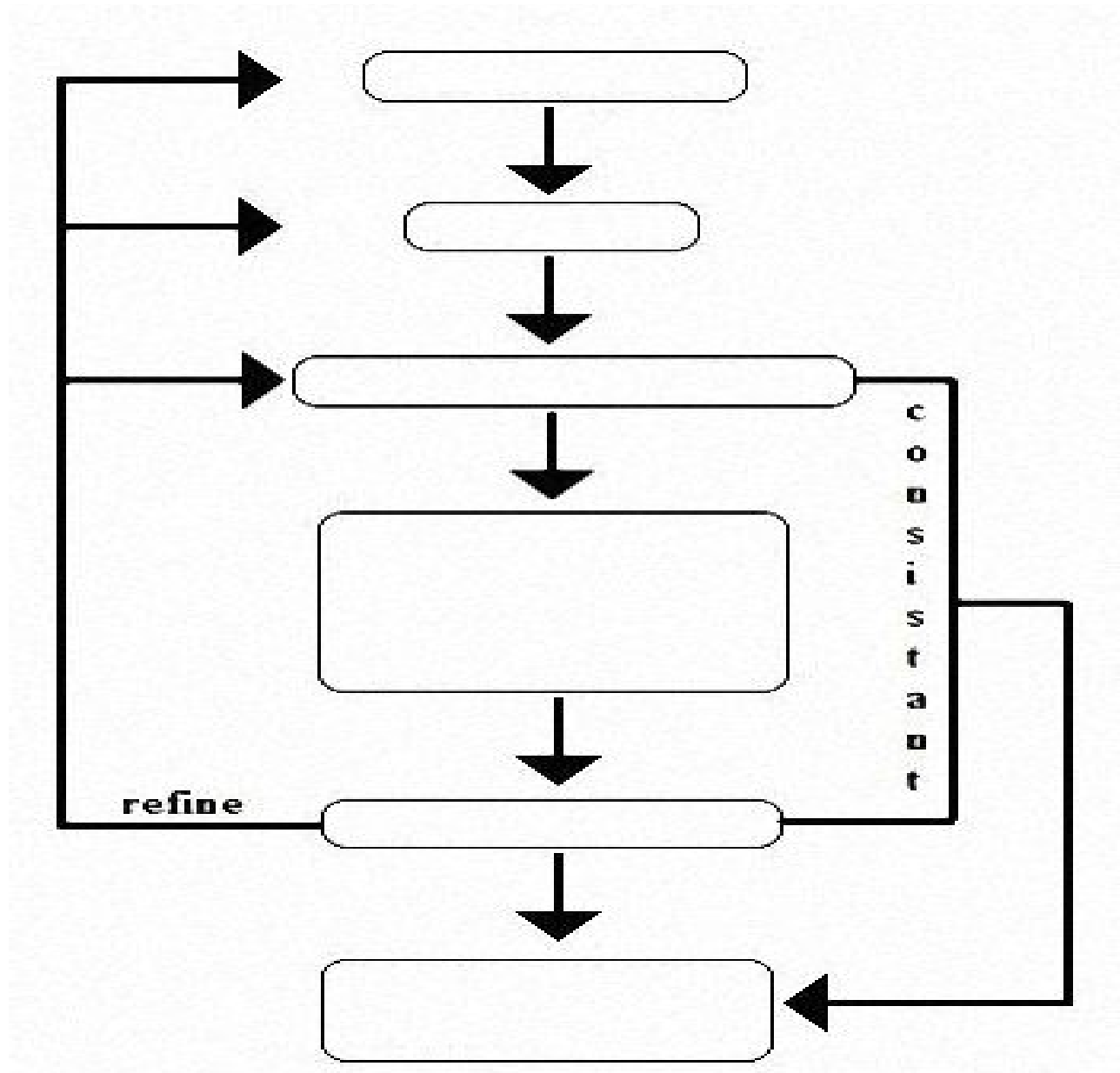
	Advantages	Disadvantages
Fossil Fuels		
Nuclear		
Solar		
Hydroelectric		
Wind		
Geothermal		
Biomass		

Units 1-3 (50% of Midterm)

Unit 1: Intro to Earth Science

1. Fill in the diagram using the word bank (each word will only be used once!)

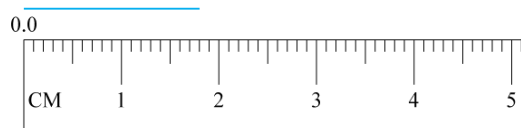
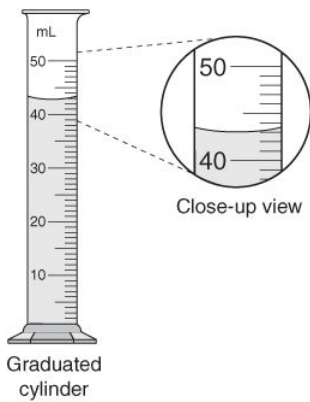
Report Results	Analyze results	Form Hypothesis
Ask A Question	Test/Experiment	Draw Conclusion



2. Check the box of appropriate vocab word (an example has been done for you)

	Independent Variable	Dependent Variable	Control Variable
This variable remains unchanged/constant			✓
This variable is graphed on the y axis			
This variable is graphed on the x axis			
This variable can be graphed against the dependent variable to see if change occurred			
The variable that is changed by the scientist			
The variable that is being measured by the scientist			

3. Determine the following measurements



_____ mL

_____ cm

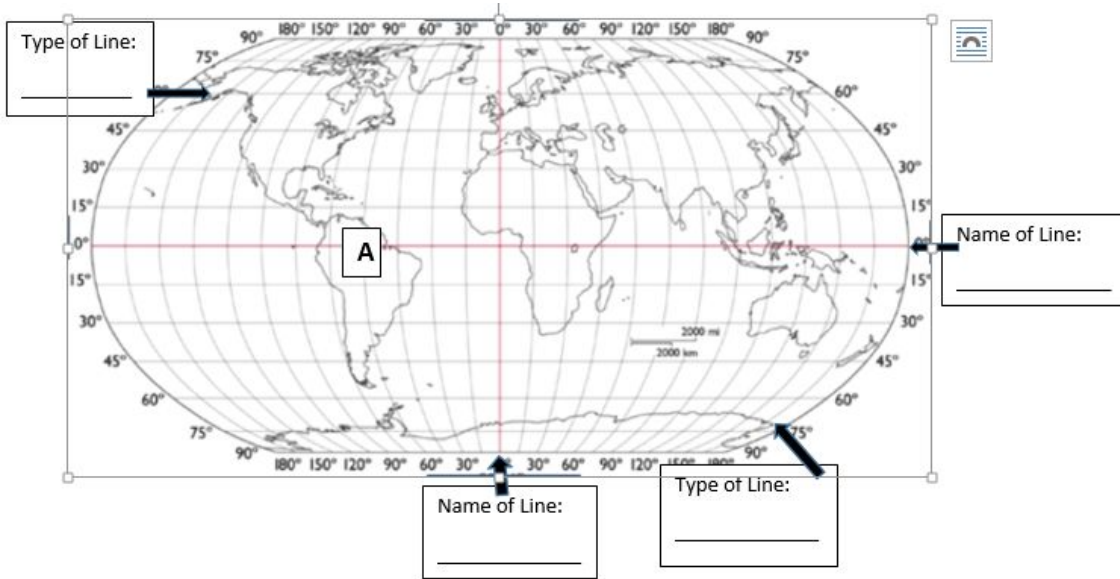
4. Use the metric conversion chart to convert the following:

a. 238 mg = _____ g

b. 0.3732 kL = _____ mL

c. 8.21 m = _____ km

5. Label the following on the map: Latitude, Longitude, Equator, Prime Meridian

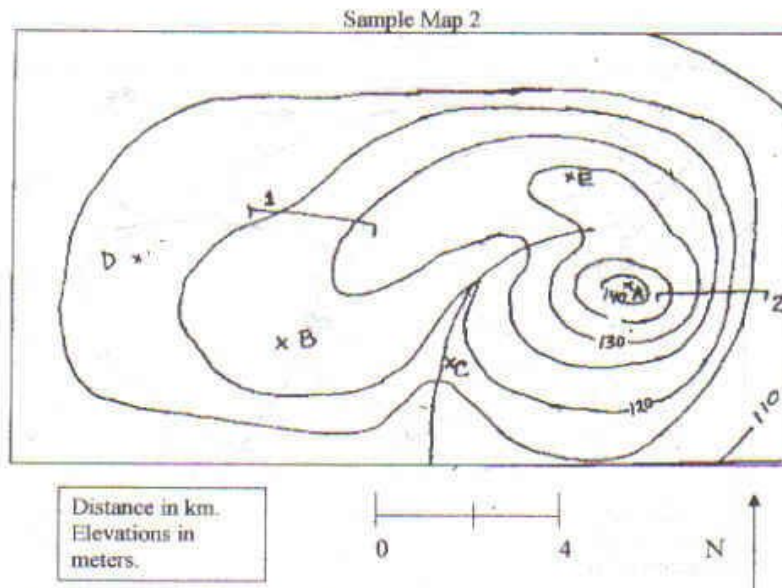


Circle the correct word in each sentence. Find the coordinates for location A on the Map above.

(a) When determining a location you find the (latitude, longitude) first followed by the (latitude, longitude) second.

(b) What is the location for point A? _____

6. Use the map below to answer the questions



a. What is the contour interval?

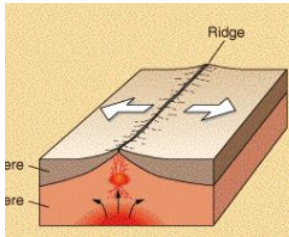
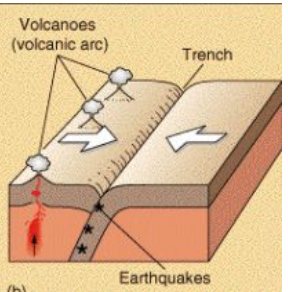
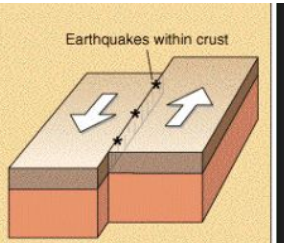
b. What is the elevation of A?

- c. What is the elevation of B?
- d. Which line represents the steeper slope--1 or 2?
- e. How far is it from D to E?
- f. What is the relief between point A and point B?

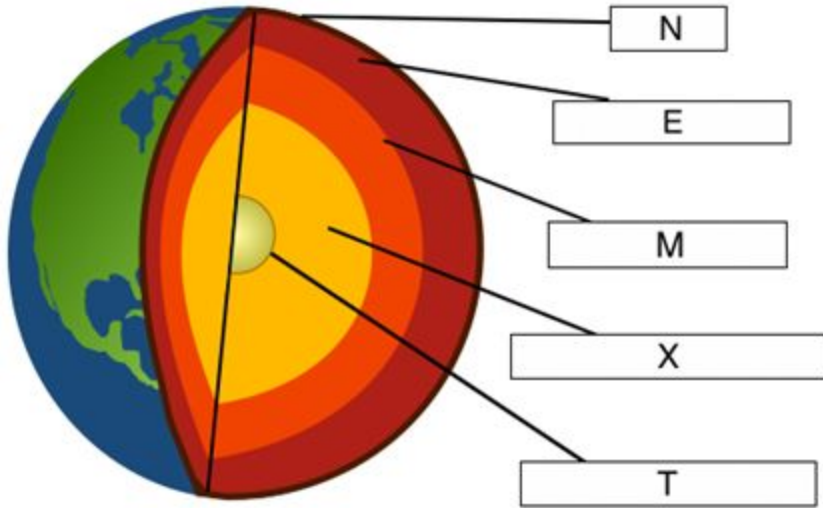
7. Check the box of appropriate vocab word (an example has been done for you)

	Oceanic Crust	Continental Crust
Generally thinner		✓
Generally thicker		
Denser (sinks)		
Less Dense (floats)		

8. Fill out the chart on plate boundaries.

			
Type of Boundary			
Movement			
Land formations			
Real-world example			

10. Label the parts of the Earth using the following terms. Inner core, Outer core, Crust, asthenosphere, inner mantle

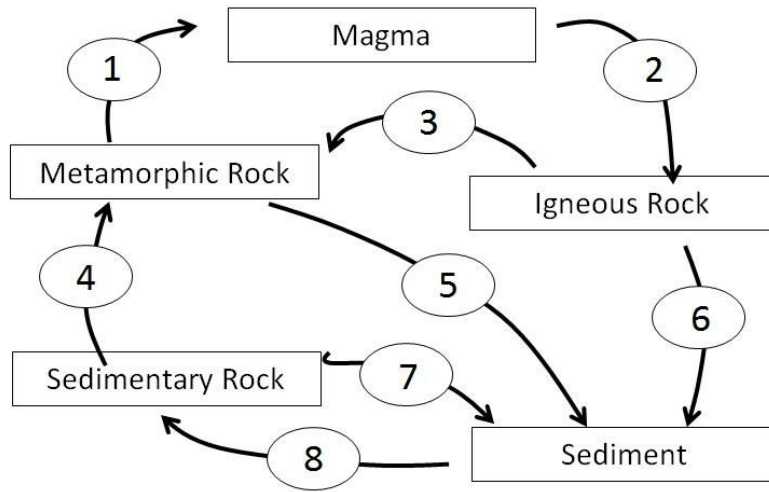


- a. What drives the movement of the mantle or asthenosphere?
- b. How do scientist know about the Earth's mantle and core?

11. Determine if the scenario is chemical or mechanical weathering. Check the correct box.

	Chemical weathering	Mechanical Weathering
The oxidation of iron creates rust.		
Water freezing in a rock and breaking it apart (frost wedging).		
Water dissolving limestone creating a cave.		
Plant roots cracking rocks open.		
Wind blows sand on a rock and causes abrasion.		

12. Fill out the chart on the rock cycle.



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

13. Identify how each rock is classified.

Metamorphic rocks	
Igneous rocks	

14. Match the correct term with each mineral classification.

1. Appearance or quality of light reflected from the surface of a mineral	_____	a. Magnetism
2. Scratching a mineral sample across an unglazed, porcelain tile	_____	b. Streak
3. Uneven breaking of a mineral	_____	c. Luster
4. Even breaking of a mineral	_____	d. Fracture
5. Ability to stick to a magnet	_____	e. Cleavage

15. Answer the following questions about soil.

- a. Rank each soil type from highest leaching to lowest leaching ability. (Silt, Clay, Sand)

- b. Name the four components that make up soil.

- c. Write the soil horizons in order from the top of the soil to the bottom and write what each horizon contains. (Horizons A, C, B, O, R)

16. Fill in the chart on agriculture practices.

Type of Agriculture	What is it?	Advantages	Disadvantages
Organic Farming			
Crop Rotation			
Terracing /Contour			