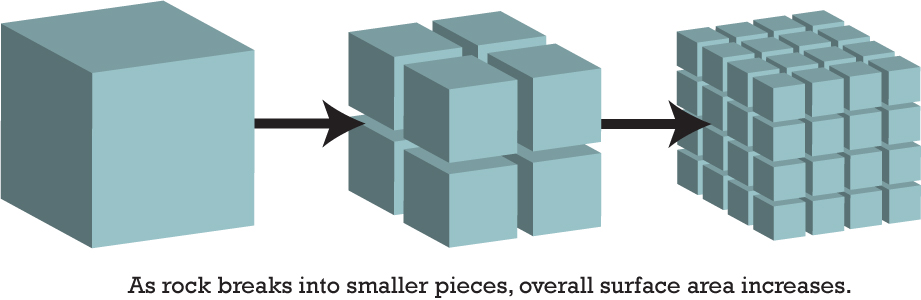
**Earth Science Diagram Review:**

**Name: Date: Period:**

1. On the diagram of the Earth’s layer below, complete the following tasks:
   1. Label each layer
   2. Next to each layer – put its phase (solid, liquid, gas)
   3. Draw convection happening in the appropriate layer
   4. Draw an arrow and label it increasing temperature
   5. Draw an arrow and label it increasing density
2. Explain the density differences using the terms mass and volume below:

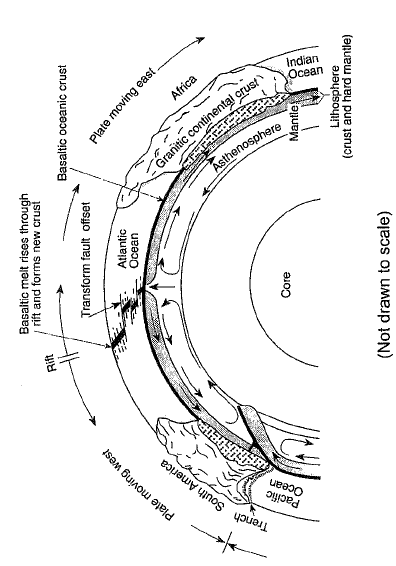
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1. Which of the following rocks will erode faster and why:



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1. On the diagram below complete the following tasks:
   1. Label where new crust is forming
   2. Label where old crust is being destroyed
   3. Label where we would find the youngest crust
   4. Label where we would find the oldest crust
   5. Label the subduction zone
   6. Label where sea floor spreading is occuring



* 1. Describe what is happening to the size of the Atlantic Ocean and why?

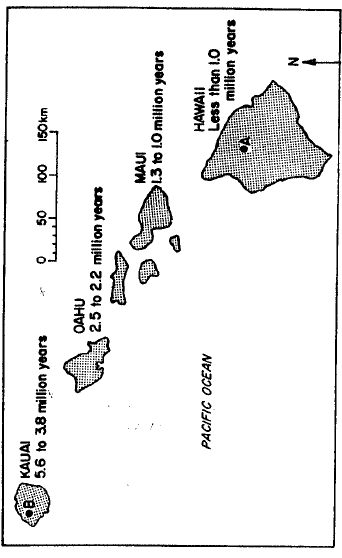
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* 1. Describe the age of the crust as you go from South America to Africa? Be sure to explain your statement:

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* 1. On your diagram, the Pacific Plate is subducting under South America explain why this is occurring:

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1. Answer the following questions based on the diagram above:
   1. If A is the hot spot, describe the age of the islands relative to each other:

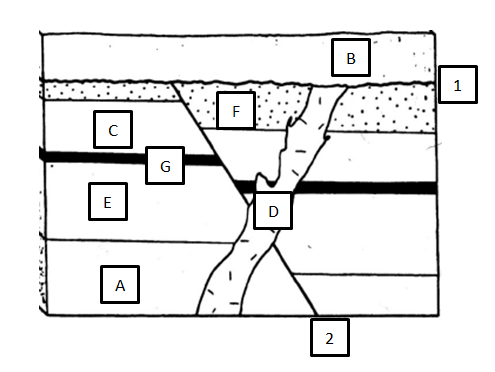
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* 1. In which direction is the Pacific plate moving? Explain:

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* 1. Where will the next island in the Hawaiian island arc most likely form. Explain:

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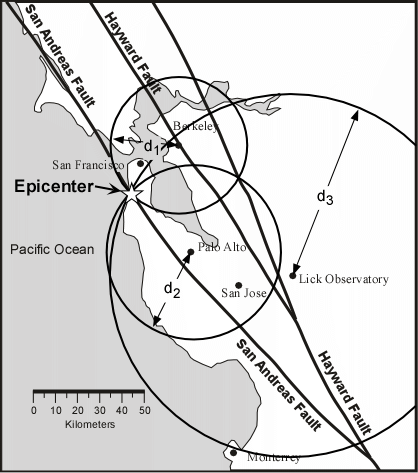
1. Using the diagram above, answer the following questions:
   1. List the layers and events in order of oldest to youngest. Explain your reasoning using 3-4 principles that we have learned about:

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1. If a radioactive dating isotope has a half-life of 8 hours. How long will it take for a 384g sample to radioactively decay to 3g? Show your work and graph below:

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1. Answer the following questions based on the diagram below:



* 1. At all three stations, which type of wave reached them first and why? On the complete opposite side of the world, what would that station read and why?

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* 1. Which station would have the smallest time difference between arrival times? Which one would have the largest? Why?

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* 1. If you didn’t have the Lick Observatory readings, could you pinpoint the epicenter? Why or why not?

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