

Midterm Study Packet - 8

1. Label each event with when it occurred (BYA)

Big Bang!

Birth of Sun

Galaxies form

Birth of Earth

Dinosaurs Extinct

Life on Earth begins

Today

Early Elements (He, H, Li) created

2. Now that you have matched each event with a year, arrange the events in order on the timeline below. Don't forget to label your timeline with an appropriate scale.



3. Describe how each of the following support the Big Bang Theory:

Sir Edwin Hubble's Observations:

Cosmic Microwave Background Radiation (WMAP):

Formation of Early Elements:

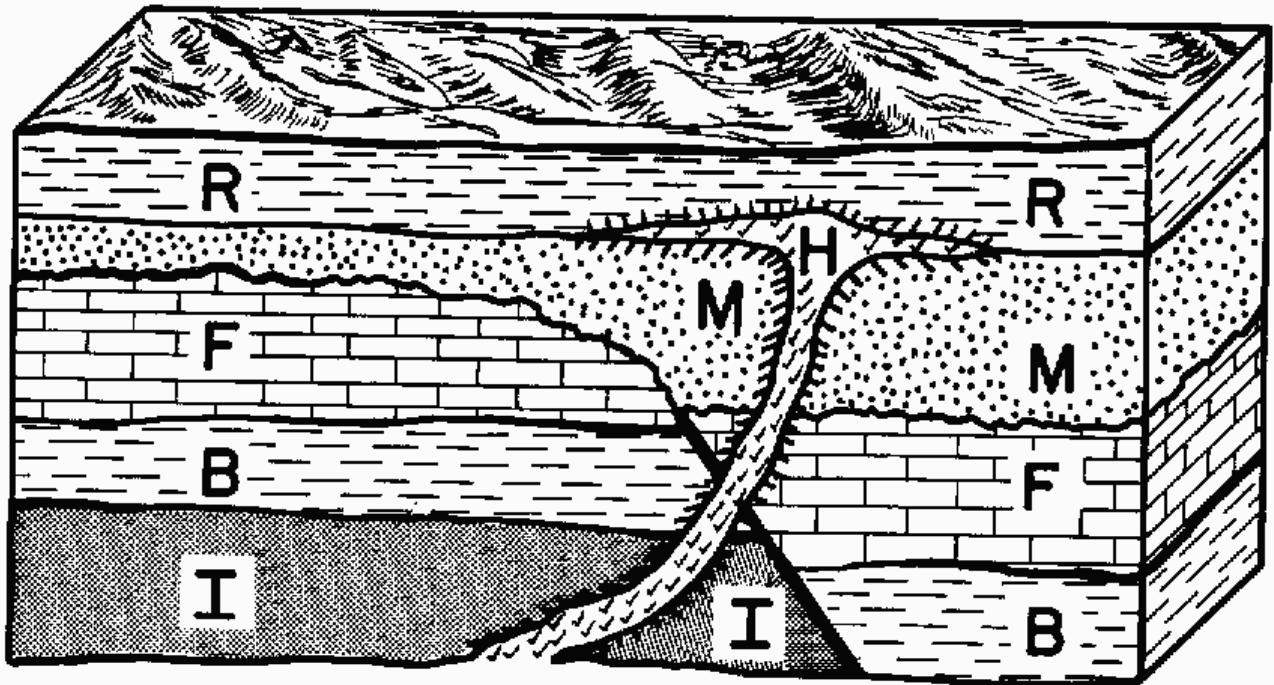
Einstein's Theory of General Relativity:

4. Describe how the following pieces of Evidence support Darwin's Theory or Evolution:

The Fossil Record:

Comparative Anatomy:

Comparative Embryology:



5. Use the Geologic Principles that you have learned to put the layers/objects above in order. For each principle you use, describe WHY/HOW that principle supports your thinking.

6. In the space below, name and describe the three types of plate boundaries, including which types of landforms would be found at each.

7. Describe how each piece of evidence below supports the Theory of Plate Tectonics:

Continental Shapes:

The Fossil Record:

Types of rock:

Landforms:

8. All life on Earth depends upon photosynthesis and cellular respiration as they cycle matter and energy. In the space below, describe what types of matter (compounds/elements) is cycled between the two processes, and how this supports all life on Earth. Be sure to include: glucose, oxygen, carbon dioxide, water, and energy.

9. The equation for photosynthesis is:

10. Divide this page into two halves. On one half, draw a diagram of the process of photosynthesis. On the other half, explain each step of the process using words. Be sure to include and label:

- Plant structures that allow the raw materials get into the plant
- The cell organelle where photosynthesis takes place, and any parts of it that are important
- Each time a molecule is made or broken
- The energy source
- What happens to each product

11. The equation for cellular respiration is:

12. Divide this page into two halves. On one half, draw a diagram of the process of cellular respiration. On the other half, explain each step of the process using words. Be sure to include and label:

- The cell organelle where cellular respiration takes place, and any parts of it that are important
- Each time a molecule is made or broken
- What happens to each product