Read pg. 688-690 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**FORMATION OF SOLID EARTH**

\_\_\_\_\_\_ 1. When Earth formed, its high temperature was NOT due to

a. heat produced when planetesimals collided with one another.

b. heat generated when the increasing weight of its outer layers compressed its inner layers.

c. the conversion of moving radioactive particles into heat energy.

d. an irregular orbit that brought it closer to the sun.

\_\_\_\_\_\_ 2. Dense materials such as molten iron sank to Earth’s center and less dense materials were forced to the outer layers in a process called

a. distinction. b. differentiation.

c. distribution. d. delineation.

\_\_\_\_\_\_ 3. Which of the following did NOT form as one of Earth’s layers when differentiation occurred?

a. core b. mantle c. atmosphere d. crust

\_\_\_\_\_\_ 4. Which of the following elements is NOT present in large amounts in Earth’s three layers ?

a. gold b. iron c. silica d. magnesium

\_\_\_\_\_\_ 5. Earth’s surface continued to change as a result of

a. increasing radiation. b. colliding planetesimals.

c. the heat in Earth’s interior. d. hydrogen fusion.

**FORMATION OF EARTH’S ATMOSPHERE**

\_\_\_\_\_\_ 6. The original atmosphere of Earth consisted of

a. oxygen and nitrogen. b. hydrogen and helium.

c. nitrogen and helium. d. hydrogen and oxygen.

\_\_\_\_\_\_ 7. Today, hydrogen and helium occur mainly in the

a. oceans. b. middle atmosphere. c. lower atmosphere. d. upper atmosphere.

\_\_\_\_\_\_ 8. Earth’s early atmosphere formed when volcanic eruptions released gases in a process called

a. outgassing. b. atmospheric composition. c. air generation. d. layering.

\_\_\_\_\_\_ 9. What is the molecule that contains three oxygen atoms and collects in Earth’s upper atmosphere called?

a. oxygen *b. argon* c. ozone d. carbon dioxide

10. Some of Earth’s early organisms, such as cyanobacteria and early green

plants, used \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_during photosynthesis.

11. Which byproduct of photosynthesis was released into the atmosphere?

12. When did the chemical composition of Earth’s atmosphere reach that of today?

13. What is the present chemical composition of Earth’s atmosphere?

14. How did Earth’s first oceans form?

15. Comet collisions may have contributed a significant amount of\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to Earth’s surface.

16. The first ocean was probably made of\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ water.

17. The concentration of certain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-in the oceans

increased as rainwater dissolved rocks on land and carried these dissolved solids into the oceans.

18. When ocean water evaporated, chemicals in the ocean combined to form\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

19. Earth’s atmosphere and surface cooled because ocean water also dissolved

much of the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the atmosphere.

**Summarize the process by which the land, atmosphere and ocean of Earth formed.**

**Explain why Earth is capable of supporting life**.