

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

### **Nova: Origins Part II – How Life Began**

#### **Spontaneous Generation**

1. Describe the ancient recipe for creating life:
2. Why did scientists at the time believe this created life?

#### **Ancient Earth**

3. Describe differences between Earth of today, and ancient Earth:
  - a. The sun:
  - b. The atmosphere:
  - c. Color:
4. What was the heavy bombardment?

#### **Cueva de Villa Luz (Cave of the Lighted House)**

5. What is the gas present in this cave that is poisonous to us?
6. What does this gas smell like?
7. What is formed when hydrogen sulfide gas reacts with water?
8. Describe what “snottites” are made of:
9. What about this environment makes it so harsh and extreme?

#### **Chemistry and Life**

10. What are the four elements that make up life?
11. Which one of those four elements is the single most important?
12. Why is this element so unusual and unique?
13. What were the three parts of the experiment that Stanley Miller setup to imitate ancient Earth?
  - a. What was produced as a result of this experiment?
  - b. These molecules are a building block of \_\_\_\_\_

#### **Geology and Life**

14. If the ancient rocks in Greenland are too old to contain fossils, how are they tested to see if life existed at that time?