

Name \_\_\_\_\_

## **Movie Notes: The Search for ET (The Universe)**

### Part 1: Review on Distance and Urey-Miller Experiment

1. If the sun were the size of a marble placed on a sidewalk in Manhattan, New York, where would the next closer star (Alpha Centari) be place?
2. With the Urey-Miller Experiment, describe what the material looked like that formed on the inside of the spark chamber, and what did it contain.
3. Why does life need carbon? What is carbon great at doing?
4. What would a hypothetical life form look like on Jupiter? Describe it and how it collects food? Is it an animal or plant?

### Part 2: Europa

5. What are some features of Europa? (Size, surface, amount of water, and distance)
6. What are two ways that Europa can generate heat? (2<sup>nd</sup> comes later)
7. Why are the cracks on the surface important, how are they created, and what does this indicate about potential of life.

8. What is the best way to find life on Europa? Where should we look and how?

*Part 3: Saturn's largest Moon-Titan*

9. What are some features of Titan? (size, geology, surface, distance, chemistry)

10. What is meant that life could be "exotic"?

11. Describe how life could have formed the same time as it did here on Earth.

12. Where could life be on Titan currently? What is the heat source?

13. Dropping a probe on the surface is a good idea, but what is better for spotting life on Titan?