

Extraterrestrial Life

Turn in one copy of this lab with each group member's printed name and signature. By signing, you certify that you have actively participated in the exercise and have put forth effort in equal share to your fellow group members.

Printed Name

Signature

Part 1: What is “Life”?

1. List all the different types of life on the Earth you can think of:
2. By emphasizing "life as we know it," what big assumption are we making about life in the Universe?
3. The life bearing, "garden-like" state of the Earth is the result of many fortunate circumstances. What are some of the things that we believe life *needs* to survive? List as many as you can think of. *Try to be as general as possible* (think: does all life need plants to exist?)

4. List the three things that life as we know it *needs* to exist:

5. If we are considering the emergence of life, what things do we need to know about:

- a. Land
- b. Ocean
- c. Atmosphere

6. What was Earth like after heavy bombardment? Use the textbooks and the internet to search out the above parameters.

7. What type(s) of life probably formed earliest?

7. Using the table, find the *most likely* candidates for habitable planets. List them here along with their properties:

8. *Within* your nominal temperature range, which ones are you rejecting? Why?

9. Are there any *outside* your nominal temperature range that you have included? If so, explain why.

10. Given what you have learned in this lab, do you think it is likely life exists elsewhere (other than on Earth)? Why or why not?

11. If you have time, draw an alien here: