Name: _____ Period: _____

Extraterrestrial Web Quest

Task One: As you work through the Drake Equation game, click on the "Ask" button in order to answer the following questions.

1) According to scientists, what percentage of stars in the Milky Way have planets? _____

2) How many planets in our star system have conditions that are able to support life? _____

3) According to scientists, on what percent of habitable planets does life evolve? _____

4) According to astronomer Frank Drake, on what percent of planets with life does intelligent life evolve? _____

5) How can intelligent races be wiped out? _____

6) Based on the factors you selected how many intelligent, communicating civilizations are in the history of the Milky Way Galaxy.

Task Two: Click on the link "What makes a world habitable," and read each section. As you read each section answer the questions below.

7) What is the temperature range that seems more appropriate for life to exist on a planet?
_____

8) What does all life require? _____

9) What does a cold planet or moon need in order for life to exist? _____

10) What does the word insulate mean? (Hint: Look it up)
_____

11) What does a planet or moon depend on in order to hold its atmosphere? _____

12) What is sufficient to power microbial life? _____

13) What do planets have to have in order to supply the chemicals required by living organisms?
_____

14) What are the 5 key factors of habitability?
_____

15) What does the word habitable mean?
_____

Task Three: Click on the link "Habitable Zone" and read each section. As you are reading, provide three important facts from each subheading in the boxes provided.

The Importance of Water	**The Sun's Habitable Zone**
- - -	- - -
The Habitable Zones of Other Stars	**Life on Planets with Highly Elliptical Orbits**
- - -	- - -

Task Four: Research a planet of your choice. Using the chart provided, take notes on each of the 5 factors of habitability related to your planet. (You need a minimum of 3 notes per section). You will ultimately decide whether or not the planet you are researching can support life or not.

Temperature	- - -
Water	- - -
Atmosphere	- - -
Energy	- - -
Nutrients	- - -

Task Five: Based on your research, write a 7-9 sentence paragraph explaining whether or not the planet you chose can support life. Make sure to provide valid reasoning to support your answer.