

Name: _____

Date: _____

Block/Period: _____


Design a Planet Simulation

<http://astroventure.arc.nasa.gov/DAP/DAP.html>

Goal: Design a Planet that is Habitable to humans that is not exactly like earth. You will choose your star type and 6 characteristics of your planet.

Directions:



- Click on the  to learn how this simulation works. Adjust the volume so only you can hear it.
- Select your Star type and the 6 characteristics to accomplish your goal.
- For each of the 6 characteristics, record key facts next to the category heading, as well as the characteristic you selected

✓ Check out the “Star Type” circle to learn more about the types of stars. Record a fact about each of the following types of stars:

- Yellow Star-
- Red Giant-
- Blue Star-
- Red Dwarf-

What kinds of star will your planet orbit? _____

1. Orbit:

What distance, in AU, will your planet orbit its star? _____ AU

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What kinds of star will your planet orbit? _____

1. Orbit:

What distance, in AU, will your planet orbit its star? _____ AU

2. Planet Mass:

What is the mass of your planet compared to Earth? _____

3. Volcanoes: Carbon Dioxide in a Planet's atmosphere

Does your planet have active volcanoes? Yes _____, No _____

4. Plate Movement

Does your planet have active plate movement? Yes _____, No _____

5. Liquid Water

Does your planet start out with a supply of water? Yes _____, No _____

6. Producers

Are there producers on your planet? Yes _____, No _____

Select "Continue ➤" Draw a picture, or print out the picture of your planet

Select "Continue ➤" Were you able to design a planet that can be habitable? Yes _____, No _____. Could things other than humans live on your planet?

Why was or wasn't it habitable?

With this information, what can you do differently to create a habitable planet?

Build one more planet: Try and alter the characteristics, or star type, to make a habitable planet:

Orbit-_____AU; Planet Mass-_____; Volcanoes-_____; Plate Movement-_____; Liquid Water-_____; Producers-_____. Was your planet habitable? Why or why not?

2. Planet Mass:

What is the mass of your planet compared to Earth? _____

3. Volcanoes: Carbon Dioxide in a Planet's atmosphere

Does your planet have active volcanoes? Yes _____, No _____

4. Plate Movement

Does your planet have active plate movement? Yes _____, No _____

5. Liquid Water

Does your planet start out with a supply of water? Yes _____, No _____

6. Producers

Are there producers on your planet? Yes _____, No _____

Select "Continue ➤" Draw a picture, or print out the picture of your planet

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