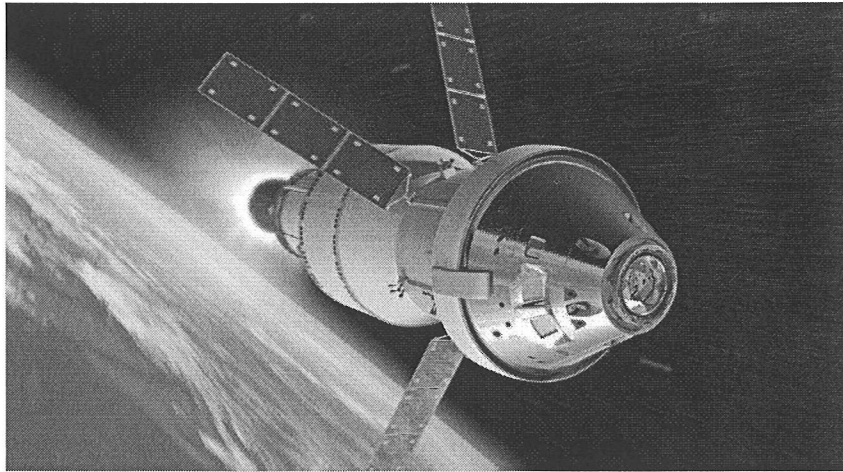


100 Year Space Journey Build an Ecologically Friendly Spaceship



The following components are what you will have to consider throughout the design and duration of this assignment.

Step 1: You will need to consider how many humans you are planning on having aboard your space shuttle.

Step 2: Step one will help you with the next step. The amount of people on the spaceship will determine the size you will need to design. You will need to design the spaceship so the humans can live comfortably. Think of the average house for 4 people-2000 square feet, not sardines in a can.

Step 3: For this step you need to determine how you will keep everyone alive. This will be the most difficult part of this project you will have to research how to sustainably and ecologically keep the humans alive.

You should consider components such as these:

- Cellular respiration – Photosynthesis
- Food Chains (what animals will be aboard) for consumption.
- Water Cycle
- Carbon Cycle
- Nitrogen Cycle
- Soil
- Sunlight
- Gravity

Step 4: These components will have to be included into your spaceship design in order to keep the humans alive and not destroy the environment they live in.

Step 5: You will need to consider power. How will you power your spacecraft effectively and efficiently? For a reference a 2000 square foot house needs anywhere between 12-18 solar panels for grid free power. You will need to research and find out how many solar panels you will need and include this in your design.

Step 6: An important step is explaining how you will avoid Bioaccumulation and Biomagnification. In other words, you need to figure out how you plan on dealing with your waste.

Step 7: To complete the project you will need to write a 100-word essay on why your spaceship is worth building for the journey as well as where do you see the funding to complete the project to come from.

Some good reliable sources you can get information from are:

<https://www.nasa.gov/feature/around-the-moon-with-nasa-s-first-launch-of-sls-with-orion>

<https://hypertextbook.com/facts/2001/StaverieBoundouris.shtml>

https://www.nasa.gov/centers/johnson/pdf/584722main_Wings-ch3a-pgs53-73.pdf