Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Due Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_

Group Members’ Names\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SOLAR SYSTEM QUEST - Share research responsibilities by completing the table and questions as you prepare to escape Earth.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Distance from Sun in AU and km** | **(sink or float?)** | **Gravity**  **(compared to Earth) m/s** | **Period of Rotation (Length of a day)** | **Period of Revolution**  **(Length of a year)** | **Direction of rotation**  **(prograde or retrograde)** | **Surface Temp**  **(High and low in Celsius)** | **Atmosphere?**  **Provide description including gases** | **Number of moons** |
| **Mercury** | **AU**  **KM** | **Density \_\_\_\_\_\_\_\_**  **Sink or float** |  |  |  | **prograde**  **retrograde** |  |  |  |
| **Venus** | **AU**  **KM** | **Density \_\_\_\_\_\_\_\_**  **Sink or float** |  |  |  | **prograde**  **retrograde** |  |  |  |
| **Earth** | **AU**  **KM** | **Density \_\_\_\_\_\_\_\_**  **Sink or float** |  |  |  | **prograde**  **retrograde** |  |  |  |
| **Mars** | **AU**  **KM** | **Density \_\_\_\_\_\_\_\_**  **Sink or float** |  |  |  | **prograde**  **retrograde** |  |  |  |
| **Jupiter** | **AU**  **KM** | **Density \_\_\_\_\_\_\_\_**  **Sink or float** |  |  |  | **prograde**  **retrograde** |  |  |  |
| **Saturn** | **AU**  **KM** | **Density \_\_\_\_\_\_\_\_**  **Sink or float** |  |  |  | **prograde**  **retrograde** |  |  |  |
| **Uranus** | **AU**  **KM** | **Density \_\_\_\_\_\_\_\_**  **Sink or float** |  |  |  | **prograde**  **retrograde** |  |  |  |
| **Neptune** | **AU**  **KM** | **Density \_\_\_\_\_\_\_\_**  **Sink or float** |  |  |  | **prograde**  **retrograde** |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **How much would a 100 pound person weigh? (second link)** | **Size compared to Earth (answer with a fraction or percent)** | **Have we sent exploratory spacecraft there before? When? What type?** | **Could it support life? Choose yes or no**  **Why or why not?** | **Interesting facts** |
| **Mercury** |  |  | **Have we sent exploratory spacecraft there before?**  **When?**  **What type?** | **Yes No**  **Why?** |  |
| **Venus** |  |  | **Have we sent exploratory spacecraft there before?**  **When?**  **What type?** | **Yes No**  **Why?** |  |
| **Earth** |  |  | **Have we sent exploratory spacecraft there before?**  **When?**  **What type?** | **Yes No**  **Why?** |  |
| **Mars** |  |  | **Have we sent exploratory spacecraft there before?**  **When?**  **What type?** | **Yes No**  **Why?** |  |
| **Jupiter** |  |  | **Have we sent exploratory spacecraft there before?**  **When?**  **What type?** | **Yes No**  **Why?** |  |
| **Saturn** |  |  | **Have we sent exploratory spacecraft there before?**  **When?**  **What type?** | **Yes No**  **Why?** |  |
| **Uranus** |  |  | **Have we sent exploratory spacecraft there before?**  **When?**  **What type?** | **Yes No**  **Why?** |  |
| **Neptune** |  |  | **Have we sent exploratory spacecraft there before?**  **When?**  **What type?** | **Yes No**  **Why?** |  |

**Preparing to Evacuate Earth**

1. Based on the data you have collected, which planet have you chosen to build your habitat? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Make a list of the reasons you have chosen this planet.
3. Describe what would happen to a human if they traveled to your planet.
4. What are some problems and solutions to sending humans to your planet? Describe all accommodations you will have to provide as you design your habitat.

|  |  |  |
| --- | --- | --- |
| **Problems to Overcome** | **Solutions** | **Accommodations**  **(What will this look like?)** |
| **FOOD** |  |  |
| **WATER** |  |  |
| **BREATHING** |  |  |
| **SHELTER/PROTECTION** |  |  |
| **EFFECTS OF GRAVITY** |  |  |
| **ENTERTAINMENT AND “OTHER”** |  |  |

On the back, brainstorm ideas for the design of your habitat with your group. Be sure to include solutions to each problem that could threaten your life!