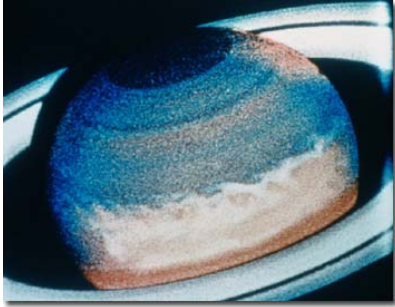


Exploring the Solar System

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Your team of crack NASA researchers has been assigned to prepare a proposal for an exploratory mission to a planet in our solar system. Your team may argue for or against the mission, provided you can defend your decision. You will be asked to research the following elements and incorporate each into your final recommendation.

Required Elements of the Proposal

1. Physical features of your planet

Use text and illustrations to describe the following characteristics of your assigned planet:

- a) Composition
- b) Geology
- c) Weather
- d) Atmosphere
- e) Moons
- f) The length of days and years
- g) The force of gravity
- h) Resources (such as water or metals for mining)
- i) Any other notable characteristics

2. Ability to support life

Your proposal should describe:

- a) Whether or not the planet can sustain life
- b) What is needed for survival on this planet
- c) How you propose to compensate for conditions that are not suitable for sustaining life
- d) The space station or base in detail through the use of a diagram. If you have chosen to send a robot, draw a diagram of the robot.

3. Flight Logistics

Use text and illustrations to describe how you will travel to this planet. Your proposal should include:

- a) A chart of your planet and earth's orbits
- b) A description of how long the trip will be
- c) Where earth needs to be in its orbit at launch in order to make the trip successful
- d) Where the destination planet needs to be in its orbit upon your arrival

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4. Recommendation

State your argument for or against planning a trip to the planet based on your research. For those planets that would not appear to sustain life, you must be creative in trying to find a way to explore the planet. For instance, you might plan to put a space station out to orbit the planet, land on one of the planet's moons, or send robotic spacecraft.

You must weigh the benefits of the mission against the drawbacks to determine whether it would be worth doing. Even if you create a way to live on there, you may argue **against** a mission to the planet as long as you can back the choice you have made with good reasoning. For example, you may decide against completing the mission due to harmful elements, budget, time, etc.

You will be assessed on how well you integrate the first three required proposal elements into your recommendations.