

Probe Design

PROBES WITH A PURPOSE

Task: You want to find out if any of the moons of Jupiter have magnetic fields. You have a tight budget, so you need to design the least expensive probe possible. Design a probe by putting check marks next to those items you would include.

Probe Type

- ☐ Flyby
- ☐ Orbiter
- ☐ Lander

Communication

- ☐ Low Gain Antenna
- ☐ High Gain Antenna

Power Source

- ☐ Battery
- ☐ Solar Panels
- ☐ Thermoelectric Generator

Instruments

- ☐ Barometer
- ☐ Magnetometer
- ☐ Spectrograph
- ☐ RADAR
- ☐ Seismograph
- ☐ Thermometer
- ☐ Infrared Camera
- ☐ Wide Angle Camera
- ☐ Narrow Angle Camera

Name_____

Class Period_____

Task: You are considering Titan as a possible home for one of the alien species, and you need to know its atmospheric pressure, what its atmosphere is made of, and whether or not it has earthquakes. Design a probe by putting check marks next to those items you would include.

Probe Type

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- ☐ High Gain Antenna

Power Source

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Instruments

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- ☐ Wide Angle Camera
- ☐ Narrow Angle Camera

Name _____

Class Period _____

Probe Design

Task: You would like to design the least expensive probe possible to find out more about temperature ranges of several areas on Mercury. Put check marks next to those items you would include.

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- ☐ Lander

Communication

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- ☐ High Gain Antenna

Power Source

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- ☐ Solar Panels
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Instruments

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Name_____

Class Period_____

Probe Design

Task: You think that Pluto may be a good home for the Akona, but need to know if it has water or earthquakes. You would also like to take pictures of broad areas of its surface to look for possible mountain ranges. Design a probe by putting check marks next to those items you would include.

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- ☐ Orbiter
- ☐ Lander

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Power Source

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Instruments

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