SPHERES AND CYCLES IN THE SOLAR SYSTEM

NAME _____HR____

1. Explain how the carbon cycle would be different on planet Mars. _____
_____
_____

2. How would the nitrogen cycle work on Saturn's moon Titan? How would it be different? Assume there is no life. (Remember the Huygens probe from the European Space Agency landed there.)
_____
_____

3. Jupiter's moon Calisto possibly has an underground ocean of water. Does Calisto have a water cycle? Explain.
_____
_____

4. Life on this planet relies on the recycling of carbon, nitrogen, water, and many other atoms as well. If an astronaut were to die on Mars, where would his nitrogen go? _____
_____
_____

5. There is carbon dioxide on Mars but no oxygen. Could we plant Earth plants in the iron oxide sand and have them survive? What problems or issues might there be? When the plant body dies where would its carbon go?
_____
_____
_____
_____
_____

6. Is there any oil, coal, or natural gas on Venus? Mercury? Jupiter? Why or why not? _____
_____
_____

7. If we ruin things here on Earth by pollution, global warming, or nuclear bombs, which planet will we move to? Justify your answer. _____
_____
_____
_____
_____

8. Place a check in the box if the sphere/cycle is present on that planet or planetesimal.

	Mercury	Venus	Earth	Mars	Jupiter	Saturn	Uranus	Neptune	Pluto
Geosphere									
Atmosphere									
Hydrosphere									
Biosphere									
Nitrogen cycle									
Carbon cycle									
Water cycle									