

History Channel's *Universe: The Outer Planets*

Name: _____

Period: _____

Date: _____

1. Fill in the following table concerning Pluto. (6:00)

Distance of Pluto from Earth	How many times the diameter of Earth is Pluto?	How long is 1 year on Pluto?	How long is 1 day on Pluto?	How much less is Pluto's gravity compared to Earth's?	How many known moons does Pluto have?

2. What three chemical compounds make up the ice on Pluto's surface? (7:00)

3. What are the dark areas on Pluto made of? (7:30)

4. What is the average temperature on Pluto and why is it so cold there? (8:30)

5. What is the dominant surface feature on Pluto, just as on every other terrestrial body in the solar system? (11:00)

6. How does Pluto's atmosphere replenish its icy surface? (11:30)

7. How did the discovery of Eris by Michael Brown stir up controversy as to what the definition of a planet is? (14:30)

8. What is the Kuiper Belt? (16:00)

9. What is the difference between a planet and a dwarf planet? (17:30)

10. Fill in the following table concerning Uranus. (23:00)

Distance of Uranus from Earth	How many times the diameter of Earth is Uranus?	How long is 1 year on Uranus?	How long is 1 day on Uranus?	How much less is Uranus's gravity compared to Earth's?	How many known moons does Uranus have?

11. How does Uranus's 98 degree tilt on its axis affect its seasons? (23:30)

12. What causes the blue-green color that we see on the surface of Uranus and Neptune? (24:00)

13. Why are Uranus and Neptune known as Ice Giants? (26:00)

14. Why doesn't Uranus have wild weather like the other gas giant planets Jupiter, Saturn, and Neptune? (27:00)

15. How is the ring formation on Uranus similar to the ring formation on Saturn? (30:00)

16. Fill in the following table concerning Neptune. (32:00)

Distance of Neptune from Earth	How many times the diameter of Earth is Neptune?	How long is 1 year on Neptune?	How long is 1 day on Neptune?	How much less is Neptune's gravity compared to Earth's?	How many known moons does Neptune have?

17. How does Neptune have such wild weather and the highest wind speeds in the solar system when it only gets 1/900th the amount of solar radiation that Earth does? (35:00)

18. How does the behavior of Neptune's Great Dark Spot explain its weather patterns? (37:00)

19. What kinds of gases are erupted from Neptune's moon Triton's geysers? How do these gases contribute to Triton's extremely cold temperature of -390 degree Fahrenheit? (41:00)

20. What is the likelihood that Neptune's moon Triton may have life, given that we have found similar geologic activity on Saturn's moon Enceladus? (42:00)