

List the Major Gases Associated with Each Planet's Atmosphere

Mercury	
Venus	
Earth	
Mars	
Jupiter	
Saturn	
Uranus	
Neptune	

1. Is there a pattern? Why or why not?
2. Which planet has the highest average temperature? Why?
3. What was the first spacecraft to land on another planet?
4. Venus has a high albedo, based on the information given about Venus, inference what the word albedo might mean.

5. Which planet has the largest volcano in the solar system? What is its name?
How much higher does this volcano stand than Mount Everest?

6. Do dust storms on Mars cover the entire planet? How long do dust storms on Mars last?

7. What 3 processes continually recycle Earth's crust above Sea Level? What process recycles Earth's crust below Sea Level?

List the Major Layers Associated with Each Planet's Interior

Mercury	
Venus	
Earth	
Mars	
Jupiter	
Saturn	
Uranus	
Neptune	

8. Is there a pattern? Why or why not?

9. Why does Mars' surface have an orange-reddish color?

10. Which planet do you think we have sent the most missions to? Why do you think that is?

11. Could Jupiter have been a star? Why or why not?

12. Which planet has the largest, most persistent high-pressure system (hurricane) in its troposphere? What is this storm system called?

13. Which Galilean Satellite undergoes constant volcanic eruptions?

14. Which Galilean Satellite may have a subsurface ocean of liquid water?

15. Which planet has the most number of rings? How many does it have?

List the Rotational Period of Each Planet

Mercury	
Venus	
Earth	
Mars	
Jupiter	
Saturn	
Uranus	
Neptune	

16. What is oddities do you notice about the rotational periods of the planets?

17. Which moon constantly erupts icy water particles through geysers that supply material to Saturn's E-ring?

18. What do hydrogen-sulfide clouds smell like?

19. What three features do the gas giants' atmospheres contain, except Uranus?

20. Only one spacecraft has ventured out beyond Saturn, what is it called? What key discoveries did it make at Uranus? What about Neptune?

List the Orbital Period of Each Planet

Mercury	
Venus	
Earth	
Mars	
Jupiter	
Saturn	
Uranus	
Neptune	

21. What pattern do you notice about the orbital periods of the planets?

22. Why are Uranus & Neptune blue?

23. Which planet spins on its side?

24. Which planet has retrograde motion?

25. What are Uranus' moons named after?

26. What was the name of Neptune's high-pressure system that dissipated by 1994?

27. What planet has the coldest temperatures?

28. What planet has the fastest wind speeds? How fast are they?

29. Which outer planet has the closest tilt to Earth's, which is 23.4° ?
30. Which moon exhibits retrograde orbit? (Rotates opposite to the planet's rotation)
31. How many rings does Neptune have? Are they permanent?
32. Which spacecraft observed a comet colliding with a planet?
33. Which planet has a huge crater called "Caloris Basin? What is it surrounded by?
34. Which planet's magnetic field gives it a long comet like tail on its nightside?
What causes this "tail"?
35. Why is Mercury the exception to the rule when it comes to the inner planets having denser gases composing their atmospheres? What composes most of Mercury's atmosphere? Where does it come from?
36. Which 4 planets have the highest density? Which 4 planets have the least density? How does this correlate with the nebular hypothesis & the gravitational sorting of materials?