**![C:\Users\maureen horn\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\8N35I1U2\MC900083185[1].wmf]()CHAPTER 9- A Family of Planets**

**Section 1 Our Solar System**

Read pages 252-255 and complete your Cornell Notes in COMPLETE SENTENCES ON NOTEBOOK PAGE 105. DO NOT FORGET to write a 2-3 sentence summary on the information in this section when you get done.

1. What invention made it easier for scientists to explore space?
2. What does **the solar system** include?
3. What is **the astronomical unit (AU)?**
4. Diagram figure 2 on page 253 onto page 104.
5. What is the speed of light?
6. How far does light travel in a **light minute**?
7. Describe the two parts of the solar system?
8. Why is the inner solar system known as the **terrestrial planets**?
9. Which planets does the **inner planets** include?
10. Why is the inner solar system known as the terrestrial planets?
11. Which planets does the inner system include?
12. Name 2 characteristics of the outer solar system’s planets.
13. Name the planets in the outer solar system.

**Now write your summary, which should include information on the telescope, the astronomical unit, the speed of light and the composition of the solar system.**

**Section 2- The Inner Planets**

Read pages 256-261 and complete the Cornell notes below in COMPLETE SENTENCES ON NOTEBOOK PAGE 107

1. Why the inner planets are called the terrestrial planets?
2. Name the inner planets.
3. Why would you only weigh 38% of your Earth weight on Mercury?
4. How long is Mercury’s *period of rotation?*
5. What is Mercury’s period of revolution?
6. Why is considered Earth’s twin?
7. In what direction does Venus rotate?
8. How is this different from Earth’s?
9. What is **prograde rotation**?
10. What id **retrograde rotation**?
11. What is the main gas of Venus’ atmosphere?
12. What is significant about Venus’ atmosphere?
13. Why is Earth so suitable for life?
14. Why is Mars a cold planet?
15. What evidence do scientists look at to explain that Mars once had water?
16. Where do scientists think some of the Martian water may be?
17. What characteristics of Mars may explain why Mars has only two volcanic systems?

The summary for this section should include information on each of the terrestrial planets.

**Section 3 The Outer Planets**

**Read pages 262-267 and complete your Cornell notes IN COMPLETE SENTENCES ON NOTEBOOK PAGE 109.**

1. Why are the outer planets called the **Gas Giants**?
2. Jupiter is like the sun, in what respect?
3. Name 2 other characteristics that make this planet unique.
4. What is the Great Red Spot on Jupiter’s surface?
5. What is the composition of Saturn?
6. What are Saturn’s rings made of?
7. What gases make up Uranus’ atmosphere?
8. Why does Uranus appear blue-green?
9. What is unusual about Uranus’ axis of rotation?
10. What characteristic of Neptune’s interior accounts for the belts of clouds in its atmosphere?
11. How does Pluto differ from the gas giants?
12. What is a dwarf planet, and why was Pluto reclassified as one?

 Summary: Your summary for this section should include an important feature of each outer planet mentioned in this section.

**Section 4 Moons**

**Read pages 268-273. Create a chart like the one below on the top half notebook page 110 and complete it as you read.**

|  |  |  |
| --- | --- | --- |
| **Moons** | **Name** | **Formation/Characteristics** |
| Earth |  |  |
| Mars |  |  |
|  |
| Jupiter’s 4 largest |  |  |
|  |  |
|  |  |  |
|  |  |
| Saturn’s largest |  |  |
| Uranus’ small moon |  |  |
| Neptune’s large moon |  |  |
| Pluto’s largest |  |  |

**Section 5 Smaller Bodies in the Solar System**

**Read pages 274-278 and answer the Cornell notes below in COMPLETE SENTENCES on page 111.**

1. Why do some scientists call **comets** dirty snowballs?
2. Explain why comets form tails as they approach the sun in their orbit.
3. Why do they sometimes form 2 tails and what is the composition of the second tail?
4. What type of orbit does a comet follow?
5. Why does the ion tail point away from the sun?
6. Diagram Figure 2 on page 275 onto the bottom half of notebook page 110. Use color labels and captions to explain the comet’s orbit.
7. From which 2 regions do comets come?
8. What are **asteroids**?
9. Where are most asteroids found?
10. Explain how the coloring of an asteroid identifies its composition.
11. How do **meteoroids** differ from asteroids?
12. Explain the difference between a **meteor, a meteoroid, and a meteorite**.
13. When do we observe meteor showers on Earth?
14. What are the major types of meteorites?
15. Why do some planets and moons have more impact craters than Earth?
16. How often might Earth receive an impact that will cause a natural disaster? A global catastrophe?
17. Explain the **Torino scale.**

**Summary: Write a summary that includes information on comets, asteroids, meteoroids. Include there composition and where they are found.**

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