**Lesson 25.2: Critical Reading**

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_**

*Read this passage based on the text and answer the questions that follow.*

**Venus**

Of all the planets in our solar system, Venus is most similar to Earth in size and density. Venus is also our nearest neighbor. In addition, Venus’ interior structure is similar to Earth’s, with a large iron core and a silicate mantle. But the resemblance between the two inner planets ends there.

One way that Venus differs from Earth—and from all of the other planets in the solar system—is its direction of rotation. Venus rotates in a direction opposite to the direction that it orbits the sun, whereas the rest of the planets rotate in the same direction that they orbit the sun. Venus’ rotation is also extremely slow, with just one rotation every 243 days. This is longer than the 224 days it takes Venus to orbit the sun, so a day on Venus is longer than a year.

Like Earth, Venus has an atmosphere, but the atmosphere is very different from Earth’s atmosphere. Venus' atmosphere consists mostly of carbon dioxide with some sulfur dioxide and sulfuric acid, which is highly corrosive. Because carbon dioxide is a greenhouse gas, Venus’ atmosphere traps heat from the sun and creates a powerful greenhouse effect. Although Venus is farther from the sun than Mercury, the greenhouse effect makes Venus hotter than Mercury. In fact, Venus is the hottest planet in the solar system. Temperatures at the surface reach 465 degrees Celsius, which is hot enough to melt lead! The atmosphere of Venus is also extremely thick. Because of the thickness of the atmosphere, the atmospheric pressure on the planet’s surface is 90 times greater than the atmospheric pressure on Earth’s surface.

Like Earth, Venus has many volcanoes. In fact, the surface of the planet is covered by large areas of volcanoes surrounded by plains of lava, and some of the volcanoes may be active. On Earth, volcanoes erupt along tectonic plate boundaries. On Venus, which lacks tectonic plates, heat builds up inside the planet and has no way to escape. The heat keeps building up until it finally destroys the crust and allows magma to erupt onto the surface.

**Questions**

1. In what ways does Venus resemble Earth?
2. How is Venus’ rotation unique among all the planets in the solar system?
3. Explain how Venus’ atmosphere compares with that of Earth.
4. Describe volcanic activity on Venus.

**Lesson 25.2: Multiple Choice**

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_**

*Circle the letter of the correct choice.*

1. The terrestrial planets include
   1. Mars.
   2. Venus.
   3. Mercury.
   4. all of the above
2. All of the inner planets
   1. have one or more moons.
   2. are made of igneous rock.
   3. have been geologically active.
   4. two of the above
3. Compared with the outer planets, the inner planets have
   1. slower rotations.
   2. longer orbits.
   3. more rings.
   4. more moons.
4. Temperatures vary widely on Mercury because it has
   1. almost no atmosphere.
   2. water on the surface.
   3. rapid rotation.
   4. a thin crust.
5. Venus is very similar to Earth in terms of its
   1. size.
   2. density.
   3. atmospheric pressure.
   4. two of the above
6. On which planet is a year shorter than a day?
   1. Mercury
   2. Venus
   3. Earth
   4. Mars
7. Compared with Earth, Mars is
   1. smaller.
   2. colder.
   3. drier.
   4. all of the above