Chapter Test B

1. crust
2. nebula
3. fusion
4. sunspot
5. rotation
6. C
7. A
8. C
9. B
10. D
11. Answers may vary. Sample answer: Kepler's first law of motion states that all planets move around the sun in elliptical orbits. Kepler's second law states that planets move faster when they are closer to the sun. Kepler's third law states that if a planet's period of revolution is known, the planet's distance from the sun can be calculated.
12. Answers may vary. Sample answer: When the inside of early Earth had melted, gravity caused the heavier elements, like nickel and iron, to sink to the center. Lighter elements floated to the surface. Over time, this process cause Earth to separate into layers.
13. Answers may vary. Sample answer: As particles in a nebula collide and move away from each other, pressure is created. The outward pressure balances the inward gravitational pull, and the nebula becomes stable.
14. Answers may vary. Sample answer: Planets were affected by their distance to the sun as they formed. For example, planetesimals that formed near the outside of the solar nebula attracted nebula gases. As a result, they're abundant in hydrogen and helium. Planets that formed near the center of the nebula were too hot to attract gases, so they are mostly made of rock.
15. Answers may vary. Sample answer: Planets are shaped like spheres because gravity pulls all of their material toward the center with equal force. In a sphere, each point on the surface is the same distance from the center.
16. Answers may vary. Sample answer: If large areas of forest are lost, there might not be as much oxygen in the atmosphere. The amount of carbon dioxide in the atmosphere might also increase.
17. Answers may vary. Sample answer: The most sunspots were recorded around the year 1778, and the fewest were recorded in the year 1810. About 32 years passed between the years of highest and lowest sunspot activity.
18. **a.** solar system; **b.** nebula; **c.** gravity; **d.** solar nebula; **e.** planetesimals; **f.**planets; **g.** rock; **h.** gas

Chapter Test C

1. C
2. D
3. B
4. C
5. C
6. D
7. D
8. C
9. B
10. D
11. C
12. A
13. B
14. C
15. D
16. B
17. A
18. pressure
19. solar nebula
20. convection zone
21. photosphere

Standardized Test Preparation

READING

Passage 1

1. C
2. G
3. D

Passage 2

1. D
2. H
3. A

INTERPRETING GRAPHICS

1. C
2. F
3. B

MATH

1. B
2. I
3. B
4. F

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