Name _____ Date _____ Class _____

SECTION 1 Study Guide

Pressure

Chapter 3

Directions: *Fill in this chart explaining pressure at different elevations.*

	Location	Elevation	Description and Cause of Pressure	Pressure in kPa or atm
1.		+ 8850 m		
2.	an ocean beach			
3.			weight of the atmosphere + 1 atm pressure for each 10 m of water depth	
4.				22 000 kPa (220 atm)

Directions: *Write the words from the list beside the proper phrase below.*

barometer	**newton**	**pressure**
fluid	**pascal**	**straw**
square meter	**plasma**	**weight**

_____ 5. a unit of pressure

_____ 6. a device that uses atmospheric pressure to help you drink

_____ 7. a device that measures atmospheric pressure

_____ 8. force per unit area

_____ 9. a unit of area

_____ 10. a fluid that is found in the stars

_____ 11. a force exerted on a table by a book resting on a table

_____ 12. a state of matter that always takes the shape of its container

_____ 13. a unit of force

Directions: *Explain why the pressure exerted by the tip of a nail on a wooden board will be much greater than the pressure that is exerted on the head of the nail by a hammer.*

14. _____

_____

_____

_____

Name Date Class

SECTION 1 Reinforcement

Pressure

Directions: *Circle the term in parentheses that makes each statement correct.*

1. Pressure is equal to (force times area, mass divided by volume, force divided by area).
2. If you stand on your left foot and then put your right foot down, the pressure on your left foot (increases, decreases, remains the same).
3. It you first stand on one foot, then on both feet, the force on the ground (increases, decreases, remains the same).
4. The SI unit of pressure is the (newton, pascal, millibar).
5. For a given weight, if the area of contact between two surfaces decreases, the pressure (increases, decreases, remains the same).
6. A pascal is (1 m/N, 1 kg/m, 1 N/m^2).
7. A tall thin glass and a wide short glass are each filled with the same amount of water. The pressure on the bottom of the tall thin glass is (greater than, less than, the same as) the pressure on the bottom of the wide short glass.
8. As you go deeper into a swimming pool, the pressure on your ears (increases, decreases, remains the same).
9. When you stand shoulder-deep in the water In a lake, the pressure on your shoulders is (greater than, less than, the same as) the pressure on your ankles.

Directions: *Complete the following sentences using the correct terms.*

_____ 10. A fluid is any substance that has no definite _____ and has the ability to _____.

_____ 11. The pressure exerted by a fluid on a _____ doesn't depend on the shape of the container.

_____ 12. The atmosphere exerts a pressure of about _____ at sea level.

_____ 13. An instrument used to measure air pressure is a _____.

Directions: *Answer the question on the lines provided.*

14. A bookcase has a base 1 m long and 0.5 m wide. It has a mass of 300 kg. Find the pressure it exerts on the floor in kPa.

_____

_____

Meeting Individual Needs