**8.2 PRESSURE Name:**

 **Date:**

 **Block:**

**(Refer to pp.290 – 299 of BC Science 8)**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the amount of force applied over a given area on an object.
* When pressure is applied to matter, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can result.
* **Compression** is a \_\_\_\_\_\_\_\_\_\_\_\_\_ in volume produced by a force.

**Gases Are Compressible**

* A gas can \_\_\_\_\_\_\_\_ be compressed because there is a large amount of \_\_\_\_\_\_\_\_\_\_ between its particles.
	+ Gas that is trapped in a container and heated will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in pressure.
	+ Heat causes the particles to move \_\_\_\_\_\_\_\_\_\_\_. These fast moving particles \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_ the sides of the container.
	+ The increased pressure could cause the container to \_\_\_\_\_\_\_.
* Gas that is trapped in a container and cooled will \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in pressure.
	+ The decreased pressure could cause the container to \_\_\_\_\_\_.

**Liquids and Solids Are Very Difficult to Compress**

* The particles of liquids and solids are already so tightly packed together that squeezing them together is almost \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Solids and liquids are described as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Compression and Deformation**

* Solids can appear to be compressed if the “\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_” in the material are compressed.
	+ An example would be squishing (compressing) a marshmallow.
* Solids can also appear to be compressed when they are \_\_\_\_\_\_\_\_\_\_.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** means to change shape without being forced into a smaller volume.
	+ A ball hitting a solid surface is an example of deformation.

**Comparing Pressure**

* Pressure depends on both the amount of \_\_\_\_\_\_\_\_\_\_ and also the \_\_\_\_\_\_\_\_\_ the force acts upon.
* Formula for pressure:



* 1 newton (N) of force for every square metre of area (m2) is called a \_\_\_\_\_\_\_\_\_\_\_ (Pa).
	+ \_\_\_\_\_\_\_\_\_ Pa = 1 kPa

**Calculating Pressure**

Use the formula to calculate the pressure involved in the following questions. Show your work!!!

1. An 880 N person stands on a 0.80 m by 1.2 m board. **(920 Pa)**
2. A 52 000 N car rests on a 3.0 m by 6.0 m platform. **(2900 Pa)**

**SUMMARY:**