**Science 8 – 8.2 Pressure** Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

**Gases Are Compressible**

* A \_\_\_\_\_\_ can easily be \_\_\_\_\_\_\_\_\_\_\_\_\_\_ because there is a large amount of \_\_\_\_\_\_\_\_ between its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ \_\_\_\_\_\_ that is \_\_\_\_\_\_\_\_\_\_ in a container and \_\_\_\_\_\_\_\_ will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ \_\_\_\_\_\_\_\_ causes the particles to move \_\_\_\_\_\_\_\_\_\_\_. These fast moving particles \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ off the sides of the container.
	+ The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pressure could cause the container to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Gas that is trapped in a container and \_\_\_\_\_\_\_\_\_\_\_\_ 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 \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ together that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ them together is almost \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Solids and liquids are described as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Solids can appear to be compressed if the “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” in the material are compressed.
	+ An example would be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (compressing) a marshmallow.
* Solids can also appear to be compressed when they are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ means to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ without being forced into a smaller \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
	+ A ball hitting a solid surface is an example of deformation.

**Comparing Pressure**

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

1 newton (N) of force for every square metre of area (m2) is called a pascal (Pa).

* + 1000 Pa = 1 kPa

**Calculating Pressure**

Use the above formula to calculate the pressure involved in the following questions.

1. An 880 N person stands on a 0.80 m by 1.2 m board.
2. A 52 000 N car rests on a 3.0 m by 6.0 m platform.