



Subject: Grade 8 Natural Sciences

Topic: Pressure

Total: 32 Marks

1. pressure gauge

3 marks

Explanation:

The instrument used to measure the pressure of a gas is called a **pressure gauge**.

It is an indication of how much gas is left in the tank because the pressure reading will drop over time as the gas is being used.

2. B: Petrol station

4 marks

Explanation:

Petrol stations have pumps which you can use to check the pressure in your tyres and to adjust it.

3. collisions | pressure

4 marks

Explanation:

When you double the number of particles inside a container, there are more collisions of particles and because of these collisions, there will be more pressure.

For example, if you inflate a balloon, the particles inside the balloon are increased and therefore the pressure is increased.

4. D: there are large spaces between the particles

4 marks

Explanation:

Gases can be compressed because **there are large space between the particles**.

Liquids also have spaces between their particles, but very small spaces, enough for the particles to move about giving it its fluidity.

Gases have large spaces, when compressed you see a significant change. If you fill a syringe with air, and close the opening with your finger, you are able to push down on the syringe, but as soon as you release, the piston will bounce back because the gas particles will push back.

5. quickly | collide

4 marks

Explanation:

The gas particles collide with each other inside a container, since they move around quite quickly. They apply a force to the walls of the container, which we call **gas pressure**.

6. inflate

3 marks

Explanation:

Adding air pressure to a deflated balloon will cause it to inflate, unless there is a hole in the balloon. A punctured balloon can't maintain pressure inside it.

7. force

3 marks

Explanation:

Pressure is force per unit area. Force is the push and pull that makes an object move.

8. gas pressure

3 marks

Explanation:

A force created by gas particles hitting the walls of their container is known as **gas pressure**.

Remember: In a gaseous state, the particles move at high speed and, when contained, will constantly be hitting the walls of the container. We are then able to measure the pressure within the container.

9. false

2 marks

Explanation:

The pressure would be high when the balloon is inflated (blown up completely).

Some gas particles have escaped through the walls of the balloon, but the remaining particles inside the balloon are not enough to keep the balloon inflated.

10. true

2 marks

Explanation:

This is why the pressure in a tyre / balloon increases when you pump more air into it. The more pressure, the more it inflates.

Total: 32 Marks