

Pressure

What is a force? A push or a pull that can cause movement

Measured in Newtons (N)

What is pressure? A force per unit of area

Measured in Pascals (Pa)

What is compressibility? The ability to be squeezed into a smaller

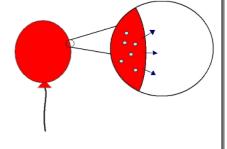
volume.

What does compressibility have to do with pressure? Please use the particle theory in your explanation.



Compressibility

When a substance is compressed, the particles are forced closer together. The particles naturally want to spread apart, and will attempt to do so as they move. As the particles move they hit the sides of whatever container they are in. This would happen naturally, but by compressing the substance you are making it happen more frequently, as the particles have less space in which they can move. Each contact from a particle creates a small force. The more particles that collide with the container, the higher the force. These small forces are happening all over the surface of the container, thus creating pressure.





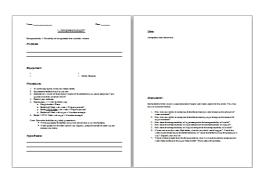
Can you explain what these images of balloons show us?

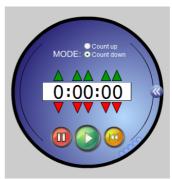
Compressibility

Now that we understand compressibility, we need to look at the differences amongst the three states of matter. Our main focus, however, will be on fluids.

Please take a copy of the experiment sheet. With a partner, or a group of three, you will use the remaining time to follow the instructions, as laid out on the sheet.

When you get to the discussion part of the experiment, sit with you group and discuss the answers. Individually record those answers, in dot-jots, on a separate piece of paper.





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