




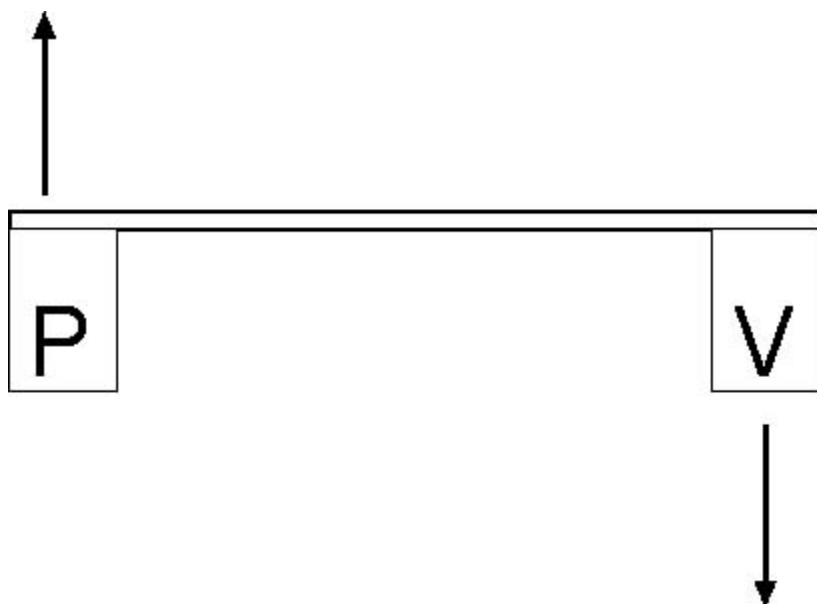
Boyle's Law

		
<p>Syringes of this type are available from Flinn Scientific. Turn the valve on the syringe horizontal. Pull back the plunger and let the plunger go. There will be a loud sound showing the reduction in pressure.</p>	<p>Open the switch by rotating it to a vertical position. Pull the plunger out and insert 2 to 3 mini marshmallows in the syringe. Push the plunger down to the top of the marshmallows. Turn the valve back to the horizontal position</p>	<p>Pull the plunger back. This will decrease the pressure in the syringe. The marshmallow will increase in volume. Let the plunger go and the volume will decrease</p>

Marshmallows are mostly air and sugar. When the plunger is pulled back the pressure is decreased and the volume of the gas in the marshmallow will increase.

You may wish to have several of these ready when students come into class pass them out and have them pull. Have them note what happens and share them. Please note it does take a lot of force to pull the plunger back. This would not be suitable for young students.

An easy way to show the relationship between pressure and volume is with a ruler. At the end of the ruler tape on a sign with P on one end and V on the other. Hold the ruler in the middle.



When pressure goes up the volume of the gas decreases. Hold the ruler in the middle and push pressure up and see the volume go down. When the volume of the gas increases the pressure goes down. Push the volume up and see the volume go down. Students can see this and then get the relationship.

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