

Compression Syringe

Estimated Time for Activity: ~5 minutes

Optional Objectives:

The students will:

- Understand the relationship between pressure, volume, and temperature

Materials:

- Compression syringe
- Small amount of cotton

Optional Vocabulary:

- Pressure
- Compression
- Volume
- Temperature
- Ideal gas

Procedures:

- Unscrew bottom of compression syringe and place a small amount of cotton into the compression shaft.
- Screw bottom back on.
- Inquire what will happen when the piston is pushed down rapidly.
- Pull piston out to let oxygen into the shaft.
- Press the piston down very rapidly (it may take some practice!) and watch the cotton ignite.

Optional Post-Activity Question(s):

- Why did the cotton ignite?