

Compression Syringe

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Time Taken ~5 min.

Objectives: (optional)

The students will:

- Understand the relationship between pressure, volume, and temperature.

Materials:

- Compression syringe
- Small amount of cotton

Vocabulary: (optional)

- Pressure
- Compression
- Volume
- Temperature
- Ideal gas

Procedure:

- 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 (may take some practice) and watch the cotton ignite.

End of activity questions to ask: (optional)

- Why did cotton ignite?