**Pressure Cooker**

**DESCRIPTION:**In this demonstration, warm water is placed in a plastic syringe, the syringe is sealed, and the plunger is pulled back causing the water to boil.  The water boils because the action of pulling back the plunger increases the volume, thus decreasing the pressure. The boiling point of a liquid is dependent on the pressure of the system, so a decrease in pressure leads to a decrease in boiling point.

**TOPICS COVERED:**- pressure  
- Boyle's Law  
- vaporization  
- physical change

**MATERIALS NEEDED:**- syringe  
- warm water

**PROCEDURE:**- with the cap on, put some warm water in the syringe  
- put the plunger in the syringe and invert  
- take the cap off, and push the plunger up to rid the syringe of air  
- recap the syringe and pull the plunger back

**ADDITIONAL COMMENTS:**This is a great one for students to do!

**SAFETY:**Safety goggles should be worn at all times.

**REFERENCES:**  
Lysher, Rita. Personal Interview by Kevin Caran. 15 Jul 2011.