

Name: _____

Class: _____

Hydraulics and Pneumatics

Purpose:

Equipment:

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• Safety Goggle

Procedure:

1. Use the syringes and tubing, to set up each of the scenarios described on the back of this page (one scenario at a time – performing each twice, once with air, once with water).
2. Follow the actions, as described in each scenario.
3. Record any observations:
 - a. What did you see?
 - b. What did you feel?
 - c. Use drawings to show actions.

Hypothesis:

Read the back of the page before writing your hypothesis. In your hypothesis, discuss air versus water as well as big versus small syringes.

Observations/Discussion:

1. Medium syringe, not connected to anything. Pull piston in and out. Use air then water. DO NOT make a mess.
2. Medium syringe, end covered by an eraser. Pull piston all the way out, cover end with an eraser, push piston in. Next, remove the eraser, push piston all the way in, cover end with an eraser, pull piston out. Use air then water. DO NOT make a mess.
3. Medium syringe connected to a medium syringe. One piston completely in, one piston completely out, fill entire system with water and connect with a tube. Push and pull the pistons to cause movement. Use air then water.
4. Large syringe connected to a small syringe. One piston completely in, one piston completely out, fill entire system with water and connect with a tube. Push and pull the pistons to cause movement. Use air then water