

**Station 1. Air Pressure vs. Gravity**

1. Pour water into a small juice cup until it overflows.
2. Place index card over the mouth of the cup.
3. Invert the cup over the sink.
4. Remove your hand from the card.
5. Explain.

Observations: \_\_\_\_\_

Explanations: \_\_\_\_\_

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**Station 2. Balloon in the freezer (video clip)**

1. At the start of the video, the balloon is in the freezer.
2. The balloon is taken out of the freezer.

Observations: \_\_\_\_\_

Explanations: \_\_\_\_\_

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**Station 3. Cartesian Diver**

1. Add water up to the top of an empty water bottle.
2. Place “Tony” or the “glass” diver into the filled water bottle.
3. Secure the top on the bottle.
4. Squeeze the bottle and watch the motion of the diver.
5. Explain using gas laws.

Observations: \_\_\_\_\_

Explanations: \_\_\_\_\_

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**Station 4. Bottle with a Hole**

1. Put your finger over the hole and fill a bottle with water to the top.
2. Put the cap on tight.
3. Put the bottle over the sink and release your finger from the hole.
4. Don't move the bottle, but unscrew the cap.
5. Explain.

Observations: \_\_\_\_\_

Explanations: \_\_\_\_\_

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**Station 5. Glass in a Glass**

1. Fill a large beaker with water.
2. Invert the glass fruit juice cup so that the mouth of the cup is parallel to the surface of the water in the beaker.
3. Push the cup directly downwards.
4. Explain.

**Station 5. Glass in a Glass *continued***

Observations: \_\_\_\_\_

Explanations: \_\_\_\_\_

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**Station 6. Straws**

1. At the lab table (or at lunch), get two straws.
2. Put one straw in your drink container and the other straw outside your drink container.
3. Drink your beverage.

Observations: \_\_\_\_\_

Explanations: \_\_\_\_\_

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**Station 7. Eggs in a Bottle (video clip)**

1. Watch the video
2. Explain using gas laws.

Observations: \_\_\_\_\_

Explanations: \_\_\_\_\_

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**DEMO # 1. Balloon**

1. Add a small amount of water to the bottom of a flask.
2. Place the flask on the hotplate or Bunsen burner and boil the water for several minutes.
3. Carefully, place a balloon over the mouth of the flask.
4. Remove the flask from the Bunsen.
5. Explain using gas laws.

Observations: \_\_\_\_\_

Explanations: \_\_\_\_\_

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**DEMO # 2. Aluminum Can**

1. Pour about 10 mL of water into a soda can.
2. Heat the can on a ring stand with a Bunsen burner or using a hot plate until the water boils.
3. Using the beaker tongs, QUICKLY invert the soda can into the beaker filled with water such that the opening of the aluminum can is immersed under the water.

Observations: \_\_\_\_\_

Explanations: \_\_\_\_\_

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