

## Flight Part 2

**Grade 6 – Physics** 

# Experiments (for stations)

#### Experiment 1 – Two Balloons

Materials

• Two inflated balloons tied to strings

Setup

• Dangle the balloons next to each other by holding them by their strings. Make sure they do not touch. Experiment by having them apart from each other by different distances.

What happens when you blow air into the space between the balloons?

#### Experiment 2 – A Piece of Paper

Materials

• A sheet of letter format paper

Setup

• Hold the paper by two corners and let it hang down. Hold up the edge between your hands to just below your mouth.

What happens when you blow over the edge of the hanging paper?

#### Experiment 3 – Ping Pong ball and hair dryer

Materials

- Ping pong ball
- Hair dryer

Setup

- Point the hair dryer straight up and turn it on.
- CAUTION: Hair dryers get HOT. Do not touch the opening. Don't do the experiment for too long or the ball can get too hot.

What happens when you place a ping-pong ball into the air stream just above the hair dryer?

#### Experiment 4 – Water and Straws

Materials

- A cup partway filled with water
- A straw, cut in half

Setup

- Hold one half of the straw in place in the middle of the cup of water. Make sure you lower it close to the bottom of the cup. Bring the other straw close to the top opening of the first straw at a right angle.
- NOTE: Make sure each person uses a new straw.

What happens when you blow air across the straw in the water?

#### Experiment 5 – Funnel and Ball

Materials

- A ping pong ball
- A funnel

Setup

• Place the ball under the funnel on the table. Cup your hand over the narrow end of the funnel. Make sure to take a big breath!

What happens when you blow into the funnel and raise it up while still blowing?

If this doesn't work, point the funnel downward, hold the ping-pong ball in place inside it, and release as you start blowing. What happens?

#### Experiment 6 – Paper Bridge

Materials

- Two books
- A piece of letter format paper

Setup

• Place the books on the table about 5 cm apart. Place the paper over them so it forms a bridge.

What happens when you blow air under the bridge?

### Experiment 7 – A bag of air

Materials

• Plastic bags

Setup

- Make sure there is no air in the bag. Hold the bag in your hand so you can blow into the opening.
- Make sure each person uses a NEW bag.
- 1. Place your mouth on the end of the bag and blow into it.
- 2. Open the bag slightly and blow toward the opening from a distance.

How much air do you collect in the bag using each method?

#### Experiment 8 – Ping-pong ball and cups

Materials

- Ping pong ball
- Two paper cups that just fit the ping pong ball

Setup

• Place the cups next to each other. Place the ping-pong ball in one of the cups.

How can you get the ball from one cup to the other WITHOUT touching it? HINT: Try blowing air! It may take a few tries!