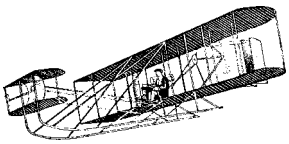


Experiment: Faster Air = Lower Air Pressure 2

Procedure Card

Materials

two ping-pong balls
tape
thread
soda straw
hanging apparatus (table, overhang on a counter)
ruler

Experiment Set Up

Cut two pieces of thread about 25 centimeters long each.

Tape one end of the thread to a ping-pong ball and attach the other end of the thread to the hanging apparatus.

Repeat this with the other ping-pong ball, one to two centimeters away from the first ping-pong ball.

Experiment Procedure

1. Hold the end of the straw about five centimeters away and perpendicular to the space between the ping-pong balls.

2. Without making contact with the ping-pong balls, blow steadily through the straw.

3. Observe and record.

Experiment Log – Key

Page 1

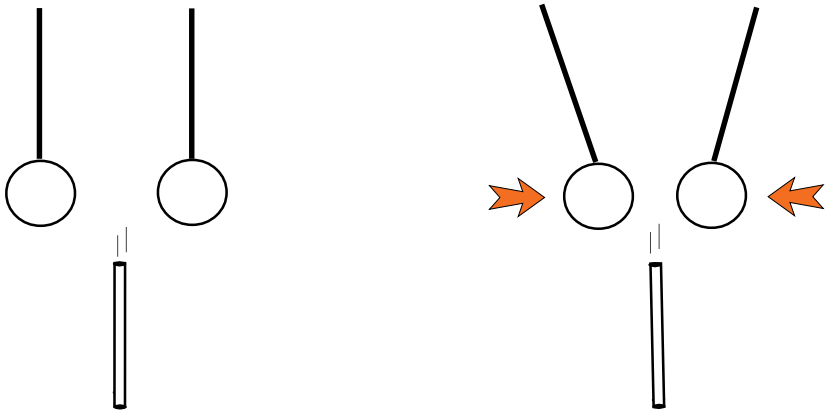
Experiment: Faster Air = Lower Air Pressure 2

Steps	Data
1. State the problem. **QUESTION** *(What do I want to know?)*	*When air changes from being still and becoming a flowing current, does the air pressure change?* *OR* *Does flowing air cause a change in air pressure?*
2. Form a hypothesis. **PREDICTION** *(What do I think is going to happen?)*	*I think the ping-pong balls will move farther apart because the moving air will exert more pressure between them and push them away from each other.* *OR* *I think the ping-pong balls will move closer together because flowing air has less pressure than still air, so the balls will move into that low pressure area.*
3. Design an experiment. **MATERIALS & PROCEDURES** *(What steps will I take to do this experiment? What things will I need?)*	*Materials:* *2 ping-pong balls • a ring stand or tabletop • thread • straw • tape • ruler* *Procedure:* *1. Gather materials.* *2. Cut 2 pieces of thread at identical lengths.* *3. Tape one end of the thread to a ball and the other to the stand so that it hangs freely.* *4. Repeat step 3, but hang the ball so that it hangs freely not more than 2 centimeters apart from the other ball at the same distance.* *5. Take the straw and without touching the balls, blow a steady stream of air in between them.* *6. Observe and record.*

Experiment Log – Key

Page 2

Experiment: Faster Air = Lower Air Pressure 2

Steps	Data
4. Perform the experiment. **OBSERVE and RECORD DATA** *(What information did I gather during this experiment?)*	*As I blew air through the straw and in between the ping pong balls, they moved (leaned) closer together. At one point, they nearly touched.*
5. Organize and analyze data. *(Make a graph, chart, picture or diagram.)*	
6. Draw conclusions. *(What do my results mean? Was my hypothesis right or wrong? Can I explain why?)*	*My results mean that moving air exerts less pressure than still air. So, still air has greater pressure and pushes more or exerts more pressure against the ping pong balls. The lower air pressure between the balls might have pulled the balls closer together too.*

Experiment Log
Page 1

Experiment:

Steps	Data
1. State the problem. **QUESTION** *(What do I want to know?)*	
2. Form a hypothesis. **PREDICTION** *(What do I think is going to happen?)*	
3. Design an experiment. **MATERIALS & PROCEDURES** *(What steps will I take to do this experiment? What things will I need?)*	

Experiment Log
Page 2

Experiment:

Steps	Data
4. Perform the experiment. **OBSERVE and RECORD DATA** *(What information did I gather during this experiment?)*	
5. Organize and analyze data. *(Make a graph, chart, picture or diagram.)*	
6. Draw conclusions. *(What do my results mean? Was my hypothesis right or wrong? Can I explain why?)*	