Name:

Structures of FLIGHT

High-Pressure Performance

Think about the demo your teacher did at the start of the lesson. Based on what you observed, can you explain what is happening to the airplane wing in the picture?

This phenomenon is known as Bernouilli's Principle!

Let's Build a Hoopglider!

Materials:

- Plastic drinking straws
- Sheet of thick paper
- Scotch tape
- Scissors

Instructions:

1. Cut off two strips of thick paper, one longer than the other.

2. Tape each into a ring, one to each end of the straw.

3. Hold the glider in the middle, hoops up and small hoop in front. Throw like a javelin.

Explore!

Does the longer of straw make it go farther?
Do more hoops make it fly farther?
Do the hoops have to be lined up?

Forceful Flying

The diagram here shows the different forces on an airplane and on a glider. The difference between the two is that the airplane has a source of thrust for sustained flight, while a glider does not.

Name:

Name:

Image Sources:

High-Pressure Performance:

1. Info Use: http://infouse.com/planemath/activities/pmenterprises/forces/forces4.html

Let's Build a Hoopglider:

1. 4Vector: http://4vector.com/free-vector/free-vector-vector-clip-art-scotch-tape-roll-clip-art-114505
2. 4Vector: http://4vector.com/free-vector/free-vector-vector-clip-art-scissors-clip-art-116113
3. Amazon: http://www.amazon.com/SunWorks-Smart-Stack-Construction-Inches-Colors/dp/B0013NVA7K
4. Bulk Bar Products: http://bulkbarproducts.com/products/Straws
5. Fruit Burst: http://www.fruit-burst.co.uk/fun-and-games/experiment/hoop-glider

Forceful Flying:

1. Pilot's Web: