Flying Forces Worksheet

1. Identify the geometric shapes that most successfully reduce drag.

2. Define the following forces:
   - Lift:
   - Drag:
   - Weight:
   - Thrust:

3. When the skydiver is flying upward in the sky, which forces are greater?
   - Thrust and lift or weight and drag?
   - Draw a diagram and label where the forces are and which direction they point.
4. When the skydiver is floating down to the ground with the parachute open, which forces are greater? Thrust and lift, or weight and drag?

Draw a diagram and label where the forces are and which direction the point.

5. Count how long it takes your skydiver to land on the ground once s/he starts to descend (float downward).
   Record this time and repeat two more times.
   Compare it with your other classmates.
   Why do you think some skydivers took longer to land than others?

6. The skydiver you constructed was triangular in shape. How do you think its flight through the air would compare to a rectangular or circular skydiver?
   Why?