

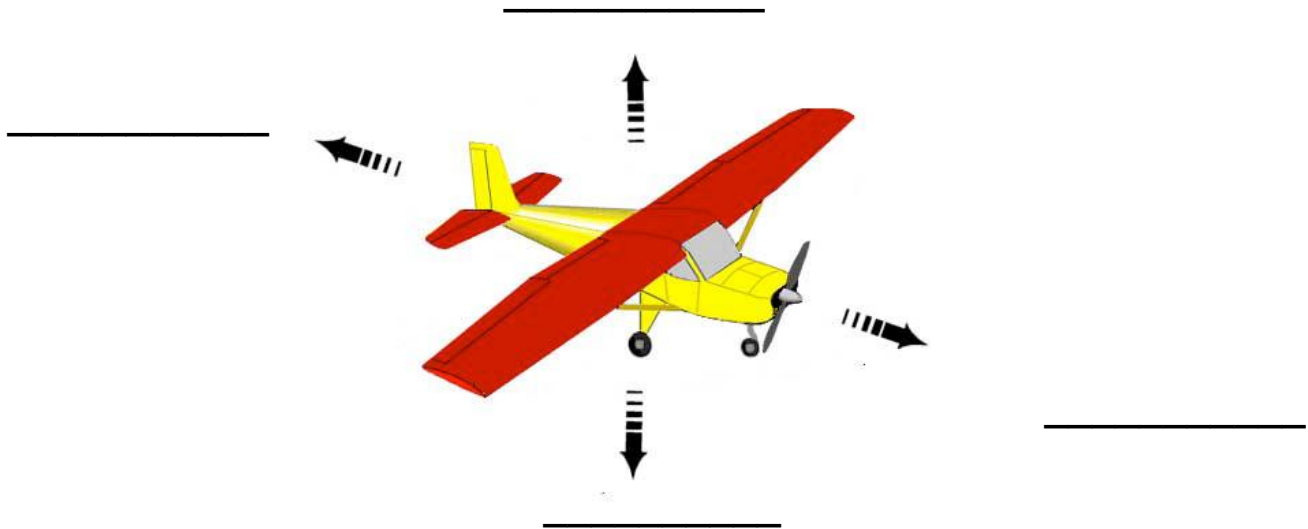
SOAR for Science: Airplanes, Speed, and Motion Grades 6-8 Post-Visit Assessment

First Name: _____

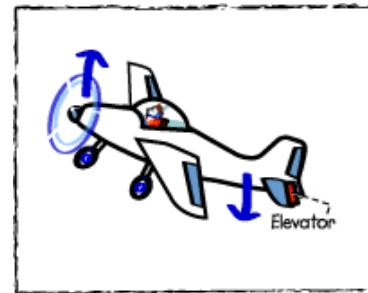
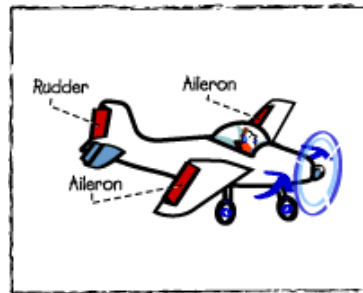
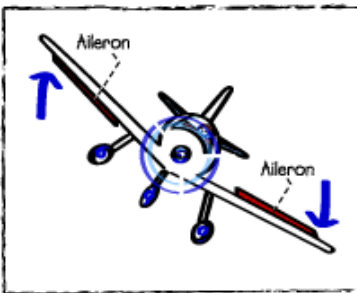
Date: _____

School: _____

1. Label the **four forces of flight** on the diagram below.



2. According to Newton's First Law of Motion, an airplane in a state of rest will remain at rest, and an airplane in a state of motion will remain in motion unless _____.
3. Newton's Second of Law of Motion states that $F = MA$. This means the heavier an airplane is, the more _____ you will need to make it accelerate.
4. During flight, Newton's Third Law of Motion is demonstrated when...
- ...An airplane wing creates lift
 - ...An airplane's propeller or jet engine creates thrust
 - ...An airplane rolls, yaws, or pitches
 - All of the above



5. The tilting of a plane from side to side is called _____.

- The movement of a plane's nose from left to right is called _____.

- The movement of a plane's nose up and down is called _____.