**AIRPLANE INSTRUMENTS**

Let's learn about an airplane's control panel! Print out this page and use them to decorate the inside of your cardboard airplane!

Airplane Control Panels have instruments that help a pilot maintain control. Using these instruments to monitor an airplane's position, rather than outside visual references, is known as attitude instrument flying. All airplanes have six basic instruments: Airspeed Indicator, Attitude Indicator, Altimeter, Turn Coordinator, Heading Indicator, and Vertical Speed Indicator.

**Airspeed Indicator**

*How fast am I going?* The airspeed indicator shows the speed of the airplane through the air, which it calculates by measuring the difference between total air pressure and static air pressure.

**Attitude Indicator**

*Where's the horizon?* Pilots use the horizon to help them judge how an airplane is oriented. When darkness and weather obscure the horizon, they refer to the attitude indicator, which uses a gyroscope to show the position of the airplane's wings in relation to an “artificial horizon.”

**Altimeter**

*How high am I?* The altimeter, basically a barometer, shows the airplane's height above sea level. It senses the change in static air pressure caused by a change in altitude.

**Turn Coordinator**

*Is my turn coordinated?* The turn coordinator helps guide the pilot through a turn. It uses a gyroscope to show the rate and direction of a turn and whether the airplane is slipping toward the inside or skidding toward the outside of the turn.

**Heading Indicator**

*What direction am I headed?* The heading indicator, connected to a gyroscope, shows the direction in which the airplane is flying. It is easier to use than a simple magnetic compass, which is affected by the acceleration of the airplane.

**Vertical Speed Indicator**

*How fast am I going up or down?* The vertical speed indicator shows the airplane's rate of climb or descent by measuring how fast static pressure changes as the aircraft climbs or descends.