Science Soars October 2<sup>nd</sup>, 2015

#### Hiller Aviation Museum

- Open 10 AM– 5 PM, 7 Days Per Week
- Special Events Each Month
- Year-Round Education Programs



## **Special Events**

- Holiday Helicopter Events
- Model Train Displays
- Summer Family Wednesday Events
- Special Aircraft Fly-Ins







## **Education Programs**

• Field Trips



- Half Day Take Flight
- Scout Badge/Patch
- Summer Aviation Camp

## The Science of Flight



Motion

Energy

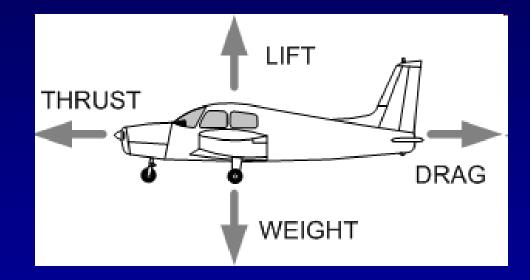
Aircraft Control

## The Wright Brothers

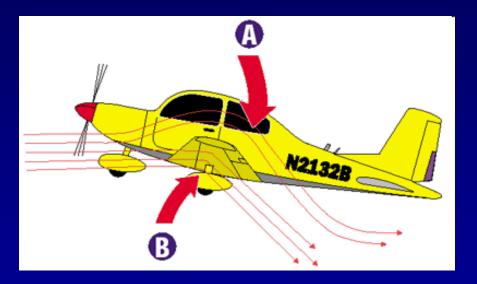
- Studied Flight Scientifically
- Conducted Tests on the Ground and With Gliders
- Mastered the Four Forces of Flight



#### **Four Forces of Flight**



## Lift



#### Moving Wing Pushes Air Down

- Air Pushes Up on Wing
- Result is Lift

#### Lift at Work



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# Weight

- Force of Gravity Pulls Aircraft's Mass Towards Ground
- Aircraft Designed to be Lightweight



## Drag



- Slows Down Aircraft In Flight
- Adjust Drag to Control Airspeed



#### Maximum Drag



#### Thrust

- Pushes Airplane
  Forward
- Provided by Engines





#### **Thrust in Action**



## Let's Explore Flight

