

Study Sheet Flight grade 6 Science

1. What is drag? **backwards thrust**
2. What is thrust? **forward thrust**
3. What is lift? **upward thrust**
4. What is gravity? **downward thrust**
5. What happens if drag is greater than thrust? **The airplane will not go up** Thrust is greater than drag? **The plane will go up**
6. What happens if lift is greater than gravity? **The plane will go up** If gravity is greater than lift? **The plane will not go up**
7. Name the purpose of the following plane parts: elevator, **controls pitch** rudder, **controls the yaw-left and right.** ailerons **controls the roll,** propeller **moves the plane through the air,** fuselage. **holds the crew and cargo** stabilizers-**parts which attach the rudder and the aileron and elevator**
8. Which of the parts from question 7 is responsible for thrust?**propeller/engine**
Lift? **wings** Drag? **flaps**
9. Where are each of the plane parts from #7 are located on an airplane?
10. What happens as you increase the size of a parachute? **it will increase drag**
11. What causes a plane to roll, yaw and pitch (which plane parts)?**ailerons, rudder, elevators**
12. What is streamlined/ Name items and animals that are streamlined and explain why. **A shape that allows air to move around it easily- air foils. Birds**
13. Name bird parts that have the same function as fuselage, elevators, propulsion, and vertical stabilizer.
14. What is Bernoulli's principle? **Fast air has low pressure, slow air has high pressure. This causes lift.**
15. What makes a hot air balloon rise? **Hot air is lighter than cold.**
16. How does a hot air balloon work? **It uses a burner and large open canopy to contain the warm air. The large canopy allows warm air to be contained.**
17. What happens if the air is cold around a hot air balloon? **It will help to increase the lift.**
18. How do you make a paper airplane turn in each direction? **add a rudder**
19. How do you make a paper airplane glide straight up? **add elevators.**