

Topic 2: Glossary

air pressure	the application of force by air, or the downward force of air in the atmosphere; the amount of force air exerts on an object
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airfoil	any object (such as the wing of an airplane) whose curved shape is designed to provide maximum lift when in motion through the air
angle of attack	the angle of a wing (or kite) to the oncoming airflow. A pilot can control the angle of attack by moving the elevators.
Bernoulli's Principle	the law stating that the faster air moves, the less pressure it exerts
bridle	the line that connects a kite to its control line
camber	the curve of an airfoil
compressed	pushed or squeezed into a smaller space
expand	increase in size
fluid	matter that flows: liquids and gases
fluid dynamics	the study of how fluids move. Fluids include water and gases (such as air).
gas	a form of matter that has no definite shape of its own but tends to expand indefinitely
gravity	the attraction between large objects in space; the force which pulls objects towards Earth's surface
hypothesis	a prediction that needs to be tested to tell if it is correct
leading edge	the front edge of an airfoil; the leading edge is normally rounded and thicker than the trailing edge
lift	the upward force that enables objects to fly
LTA	Lighter Than Air; a blimp is an example of a LTA craft
molecule	the absolute tiniest part of something that can still be called by that name. For example, two hydrogen atoms and one oxygen atom make up one molecule of water.
Newton's Third Law	a principle formulated by Isaac Newton, stating that for every action, there is an equal and opposite reaction
oxygen	a gas found in air; essential for plant and animal respiration, and for burning`

principle	a basic law or assumption about the way things work
scientific method	a systematic way of solving a problem or answering a question using observation and measurement. The six steps of the scientific method are state the problem, create a hypothesis, design an experiment, perform the experiment, organize and analyze the data, and draw conclusions.
streamlining	making a shape or design that will offer the least possible resistance to air (create less drag and move smoothly and easily); airfoils are streamlined
wind tunnel	a long tube or tunnel in which a controlled stream of air is used for aerodynamics testing of models
vacuum	an area where there is no air pressure; outer space is a vacuum
velocity	the speed of an object in a certain direction