

Lesson Plan

Name That Word

Book: *Airplanes*

Series: How It Works

Level: Navigator

Objective

To help students acquire and use domain-specific words to describe the instruments, parts, and forces related to airplanes and aeronautics.

Supplies

- *Airplanes* book
- Whiteboard
- Name That Word Clues (attached)
- Timer

Before the Activity

Read through the *Airplanes* book, or assign it to students to read on their own. Draw a Jeopardy-style chart on the whiteboard, like this:

Airplane Parts	Force & Motion	Instruments	Power	Steering
100	100	100	100	100
200	200	200	200	200
300	300	300	300	300
400	400	400	400	400
500	500	500	500	500

Activity

Split students into three teams. Each team should choose a name. Write the names at one corner of the whiteboard.

Explain that you will read a clue based on the vocabulary from the *Airplanes* book. The students will have to guess the word that this clue describes. Clues are divided into five categories: airplane parts, force and motion, instruments, power, and steering. On each team's turn, they can choose a category and a number from the chart on the whiteboard. There are five numbers in each category. Clues with bigger numbers will give the team more points, but they

will also be more difficult.

When a team chooses a category and number, you will read the corresponding clue out loud from the list of Name That Word Clues. The team has 45 seconds to guess the word that the clue describes. If the team guesses the correct word, they win the number of points in the box on the chart. If they guess incorrectly, the team to their left gets a chance to try answering.

When a team guesses the correct word, ask them if they know how to spell the word. If they spell the word correctly, give them 100 bonus points. After each answer, record the team's points on the whiteboard. Then allow the next team to choose a category and clue.

Evaluation

The team with the most points when all of the clues have been read wins the game. For a shorter version of the game, the first team to get 2,000 points wins.

Standards

This lesson may be used to address the Common Core State Standards' language standards, grades 4 and 5 (L 4.6; L 5.6), and the National Science Education Standards' Content Standard E, grades K–4 and grades 5–8.

Name That Word Clues

Airplane Parts

100. Name the rear part of an airplane. **(Answer: tail)**

200. Name the part of an airplane behind the cockpit that holds passengers or cargo. **(Answer: cabin)**

300. Name the body of an airplane. **(Answer: fuselage)**

400. Name the hinged sections on an airplane wing's rear edge that increase the lift produced by the wing when they are extended. **(Answer: flaps)**

500. Name the hinged sections on an airplane wing's front edge that increase the lift produced by the wing when they are extended. **(Answer: slats)**

Force & Motion

100. Name the force that pushes air backward and causes an airplane to move forward. **(Answer: thrust)**

200. Name the force of air pushing back against a moving object. **(Answer: drag)**

300. Name the upward force created by the pressure difference above and below an airplane's wings. **(Answer: lift)**

400. Name the upward or downward tilt of an airplane's nose, which is controlled by the elevators. **(Answer: pitch)**

500. Name the upward or downward tilt of an airplane's wings, which is controlled by the ailerons. **(Answer: roll)**

Instruments

100. Name the part at the front of the fuselage where the pilot sits. **(Answer: cockpit)**

200. Name the instrument that uses a computer rather than a person to guide the airplane. **(Answer: autopilot system)**

300. Name the instrument that a pilot uses to steer the airplane. **(Answer: control yoke)**

400. Name the lever, pedal, or handle that controls the plane's engine speed. **(Answer: throttle)**

500. Name the instrument in an airplane's nose that uses radio waves to chart the airplane's course and detect what is ahead. **(Answer: radar)**

Power

100. Name a device with two or more spinning blades that is used to pull an airplane through the air. **(Answer: propeller)**

200. Name a device in which hot air is sucked into an engine and mixed with fuel, then ignited and shot out a nozzle. **(Answer: jet engine)**

300. Name the set of blades spun by hot air in a jet engine. **(Answer: turbine)**

400. Name the part of a jet engine that squeezes the air and fuel mixture before the mixture is ignited. **(Answer: compressor)**

500. Name the part of some jet engines that gives an airplane an added burst of power by

adding heat to the air before it reaches the nozzle. **(Answer: afterburner)**

Steering

100. Name the part of the vertical stabilizer on an airplane's tail that controls the airplane's side-to-side movement. **(Answer: rudder)**

200. Name the parts of an airplane's tail that look like small wings and help the plane fly straight and stay balanced. **(Answer: stabilizers)**

300. Name the hinged pieces on an airplane's tail that control the tilt or pitch of the plane's nose. **(Answer: elevators)**

400. Name the small plates on an airplane's wings that are raised during landing to disrupt the flow of air and help slow the plane. **(Answer: spoilers)**

500. Name the hinged sections on the rear edge of an airplane's wing that allow the pilot to raise one wing and lower the other. **(Answer: ailerons)**