



FROM NOSE TO TAIL

4-H Aerospace Lesson

IDENTIFY THE FUNCTIONS OF THE BASIC PARTS OF AN AIRPLANE

Project Skills:

Understanding parts of an airplane

Life Skills:

Learning how to learn
WI Academic Standards:
Science B.4. Nature of Science

Time:

25-30 minutes

Supplies:

- Label the Parts airplane poster
- Matching Game Poster
- 1 - 2" x 3" packet of sticky notes
- Masking tape
- Dry erase marker
- Eraser

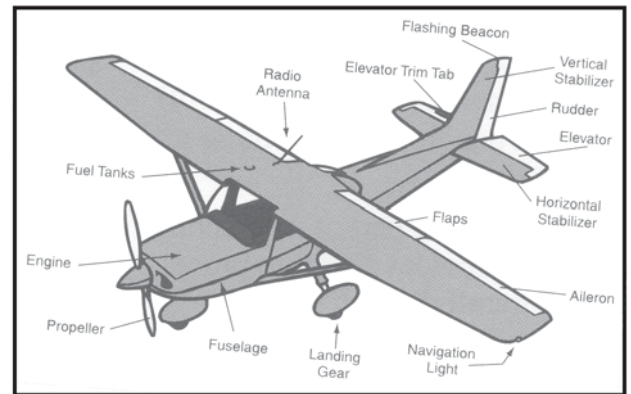
Getting Ready:

- Write each airplane part listed on the Matching Game Poster onto individual sticky notes.
- Display the Label the Parts poster and the Matching Game Poster where youth can reach them.

WHAT TO DO

Play the Matching Game

1. Pair up youth and ask pairs to look at the Matching Game Poster and find the functions that match each of the airplane parts.
2. Have each team pick one of the airplane parts and tell what description best fits its function.
3. If correct, have each team draw a line to connect that part with the function. If wrong, ask another group to match it to its description.
4. Continue until each part is matched to its function.



Play the Label the Parts Game

1. Read one of the airplane parts listed on the Matching Game Poster to the group. Ask one of the teams to come up and point to the location of that part on the airplane poster.
2. If correct, ask the team to tell the group the purpose of that specific part. If they are not sure, refer them to the Matching Game Poster.
3. Ask the team to attach the sticky note next to the correct part on the airplane drawing.
4. Continue until all parts are identified.

TALK IT OVER

Try to get each youth to express his or her feelings and experiences.

Reflect:

- How did the Matching Game help you to learn?
- How did the Label Game help you to learn?

Apply:

- Which game helped you learn better? Why?
- What does this tell you about how you prefer to learn new things?



Matching Game Poster

FROM NOSE TO TAIL

<i>Airplane Parts</i>	<i>Functions of Parts</i>
1. Aileron	a. A small wing that produces lift and keeps the airplane from pitching up and down.
2. Cockpit	b. Part of the tail section that is connected to the horizontal stabilizer and allows the pilot to move the nose up or down (pitch).
3. Elevator	c. Part of a small wing that keeps the nose stable so it doesn't yaw left or right.
4. Engine	d. Part of the tail section that is connected to the vertical stabilizer and allows the pilot to move the plane left or right (yaw).
5. Fuselage	e. Connected to the wing, this part allows the pilot to move the aircraft up or down by changing the lift produced by the wing.
6. Horizontal Stabilizer	f. Produces the power to make the airplane move.
7. Landing Gear	g. Spins very fast like an electric fan to produce thrust. This part is not on jet aircraft.
8. Propeller	h. The wheels on an airplane so it can land and taxi.
9. Rudder	i. The main structural part that connects all the other parts together. This is also where the passengers sit or cargo is stored.
10. Vertical Stabilizer	j. Where the pilot sits and flies the airplane.

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The logo for UW Extension, featuring the letters "UW" in a stylized font above the word "Extension" in a bold, italicized sans-serif font.

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Aileron

Where the pilot sits and flies the airplane.

Cockpit

The main structural part that connects all the other parts together. This is also where the passengers sit or cargo is stored.

Fuselage

Part of the tail section that is connected to the horizontal stabilizer and allows the pilot to move the nose up or down (pitch).

Elevator

A small wing that produces lift and keeps the airplane from pitching up and down.

Horizontal Stabilizer

Part of the tail section that is connected to the vertical stabilizer and allows the pilot to move the plane left or right (yaw).

Rudder

Part of a small wing that keeps the nose stable so it doesn't yaw left or right.

Vertical Stabilizer

The wheels on an airplane so it can land and taxi.

Landing Gear

Spins very fast like an electric fan to produce thrust. This part is not on jet aircraft.

Propeller

Produces the power to make the airplane move.

Engine

