

The basic flight instruments

Although the instrument panel of an airplane may confuse you at first, you'll soon be familiar with the dials and switches and the valuable information they provide. The basic flight instruments are as follows:

A Airspeed indicator—It shows the speed of the airplane through the air.

B Attitude indicator—This instrument is like the horizon you see looking out from the pilot's seat. It tells you whether the nose of the airplane is pointed above or below the horizon and whether the airplane is turning (banking) to the left or right (left wing down or right wing down).

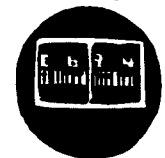
C Altimeter—This instrument shows the airplane's altitude in feet above sea level.

D Turn coordinator—When you're turning the airplane, this instrument shows the rate and the direction of the turn. In this way you can adjust to a slower or faster rate of turn.

After your first few flights, you'll be thoroughly familiar with these instruments and how they work together with the airplane's control surfaces.

E Heading indicator (directional gyro)—This instrument is another compass. It shows the direction that the airplane is flying. It's usually bigger and easier to read than the magnetic compass, but it requires some source of power to work.

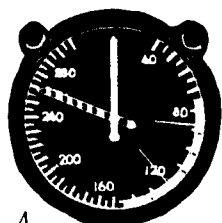
F Vertical speed indicator—This instrument tells you how quickly you're climbing or descending in feet per minute. When you're in level flight, it reads "0".



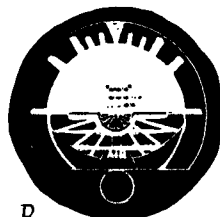
Magnetic compass—Like the compass you have seen in a car or boat, it tells you the airplane's heading—the direction it's flying. It requires no power source.

The Main Parts of an Airplane

- | | |
|--------------------------|-----------------------|
| 1. Spinner | 10. Rudder |
| 2. Landing Gear | 11. Elevator |
| 3. Wing Strut | 12. Left Wing Flap |
| 4. Wing | 13. Left Wing Aileron |
| 5. Right Wing Aileron | 14. Door |
| 6. Right Wing Flap | 15. Seat |
| 7. Fuselage | 16. Windshield |
| 8. Horizontal Stabilizer | 17. Engine Cowl |
| 9. Fin and Dorsal | 18. Propeller |



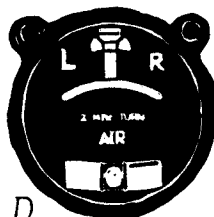
A



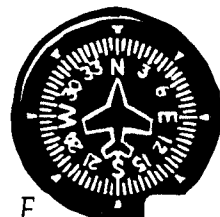
B



C



D



E



F

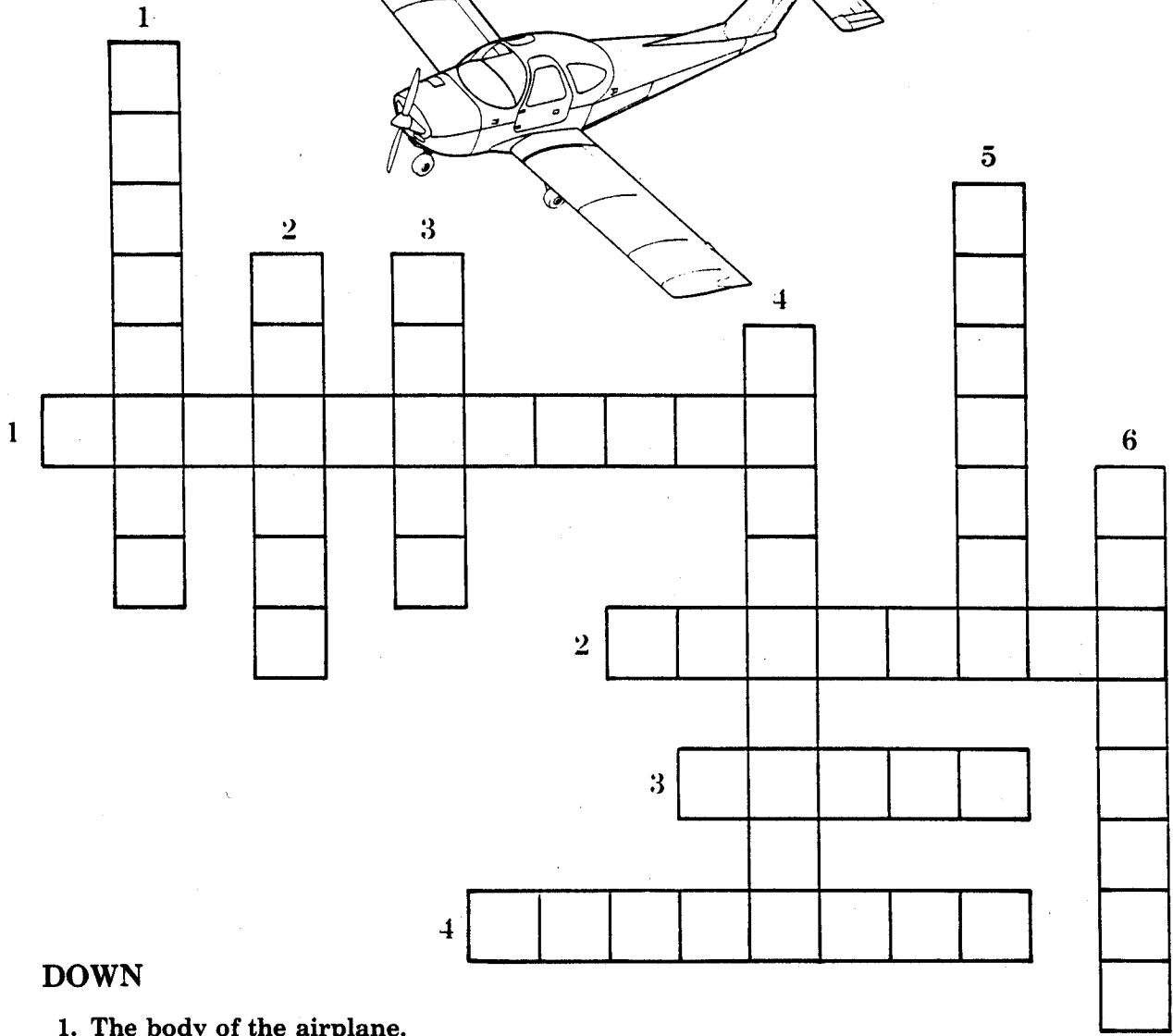
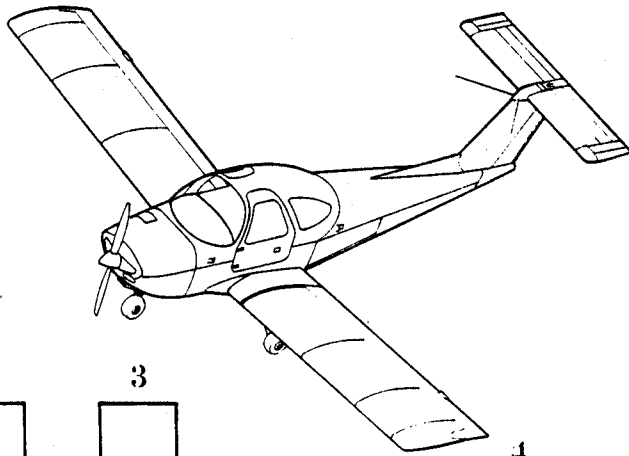
MAIN PARTS OF AN AIRPLANE

THE DEFINITIONS LISTED BELOW ARE COMMON TO MOST ALL AIRPLANES. THIS IS ALSO THE CASE FOR THE INSTRUMENTS DESCRIBED ON THE PREVIOUS PAGE.

- AIRPLANE** - An airplane is a vehicle heavier than air, powered by an engine, which travels through the air by the reaction of air passing over its wings.
- FUSELAGE** - The fuselage is the central body portion of an airplane designed to accommodate the crew and the passengers or cargo.
- COCKPIT** - In general aviation airplanes the cockpit is usually the space in the fuselage for the pilot and passengers; in some aircraft it is just the pilot's compartment.
- LANDING GEAR** - A landing gear is underneath the airplane and supports it while on the ground.
- PROPELLER** - A propeller is a rotating blade on the front of the airplane. The engine turns the propeller which pulls the airplane through the air.
- WINGS** - Wings are parts of airplanes which provide lift and support the entire weight of the aircraft and its contents while in flight.
- FLAPS** - Flaps are movable sections of an airplane wing closest to the fuselage. They both move in the same direction (down) and enable the airplane to fly more slowly.
- AILERONS** - Ailerons are outward movable sections of an airplane wing which move in opposite directions. They are used in making turns.
- RUDDER** - The rudder is the movable vertical section of the tail which controls lateral movement.
- HORIZONTAL STABILIZER** - The horizontal stabilizer is the horizontal surface of the aft part of the fuselage used to balance the airplane.
- ELEVATOR** - The elevator is the movable horizontal section of the tail which causes the plane to move up and down.
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CROSSWORD PUZZLE

Parts of an Airplane



DOWN

1. The body of the airplane.
2. The movable vertical section of the tail which controls lateral movement.
3. The parts of airplanes which provide lift and support the entire weight of the airplane while in flight.
4. A rotating blade on the front of the airplane. The engine turns it, pulling the airplane through the air.
5. In small airplanes, it is the space in the fuselage for the pilot and passengers; in larger aircraft, just the pilot's compartment.
6. A vehicle heavier than air, powered by an engine, which travels through the air by the reaction of air passing over its wings.

ACROSS

1. The part underneath the airplane which supports it while on the ground.
2. The movable horizontal section of the tail which causes the plane to move up and down.
3. The movable sections of an airplane wing which enable it to fly more slowly.
4. The movable sections of an airplane wing used in making turns.

CROSSWORD PUZZLE

Parts of an Airplane

Answers

Children enjoy crossword puzzles and they can reinforce learning. The crossword puzzle on the parts of an airplane is intended to test the understanding of the definitions.

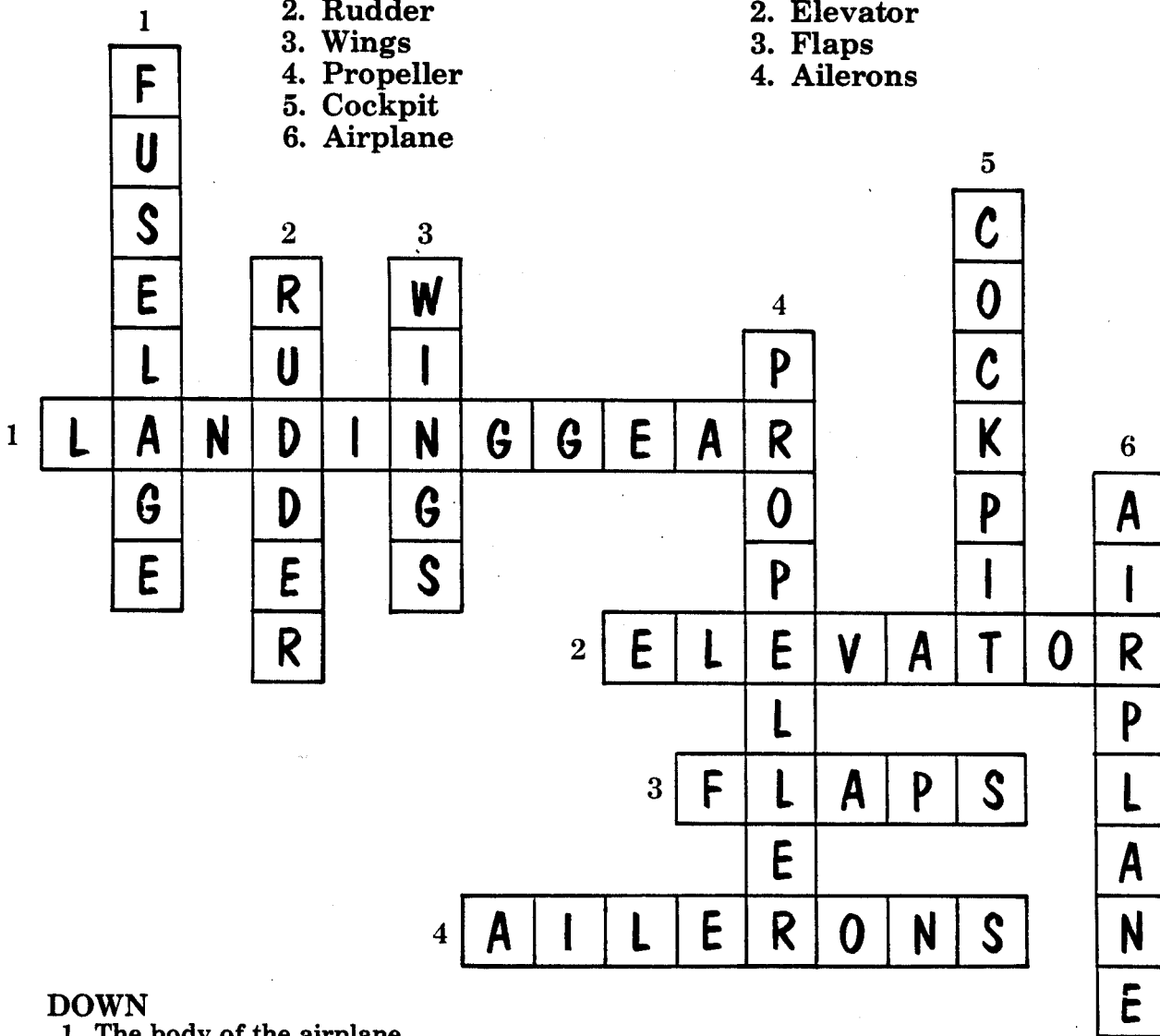
PUZZLE SOLUTION:

DOWN:

1. Fuselage
2. Rudder
3. Wings
4. Propeller
5. Cockpit
6. Airplane

ACROSS:

1. Landing Gear
2. Elevator
3. Flaps
4. Ailerons



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