



Name: _____ Date: _____

It's a Bird! It's a ... Fish?

- 1 I bet that you have seen an airplane flying through the air. Maybe you have even thought that it looked like a bird, but have you ever thought that an airplane looks like a fish? Well, engineers have. ****Engineers**** are the people who design machines. They observe both birds and fish when they are figuring out how airplanes should be built.
- 2 Forces that cause birds to glide through the air also cause airplanes to fly. An airplanes wings are shaped like a birds wings. Air goes over the top of the curved airplane wing. The air on the bottom pushes up on the wing. It lifts the airplane. The force of the air will keep the airplane flying, as long as the airplane moves fast enough.
- 3 The shape of the airplane body is important, too. The airplanes wing is shaped like the wing of a bird. But the airplane body is shaped like a fish. This body shape helps the airplane to move through the air, like a fish moves through water. It moves swiftly and smoothly. The streamlined body of the airplane makes the friction caused by air less. ****Friction**** is when two things push against each other.
- 4 Scientists and engineers learn a lot about force and motion by looking at animals and how they move. Just look at the airplane. Do you see how it is modeled after both a bird and a fish?



Reading Science

1 The passage is mainly about:

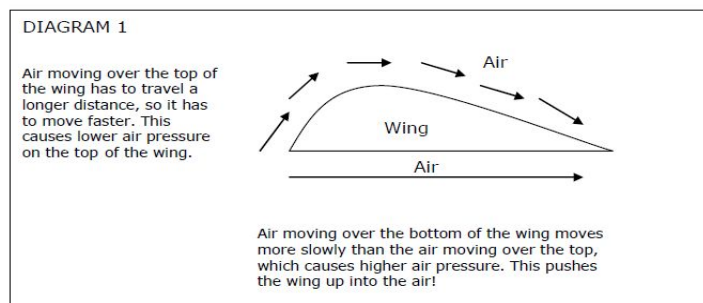
- A An airplane's wing
- B The shape of a bird's wings
- C How airplanes are like both birds and fish
- D The body shapes of fis

2 An **engineer** (first paragraph) would probably:

- A Figure out how to make cars go faster.
- B Test different motors.
- C Take machines apart and put them together.
- D All of the above

3 According to Diagram 1:

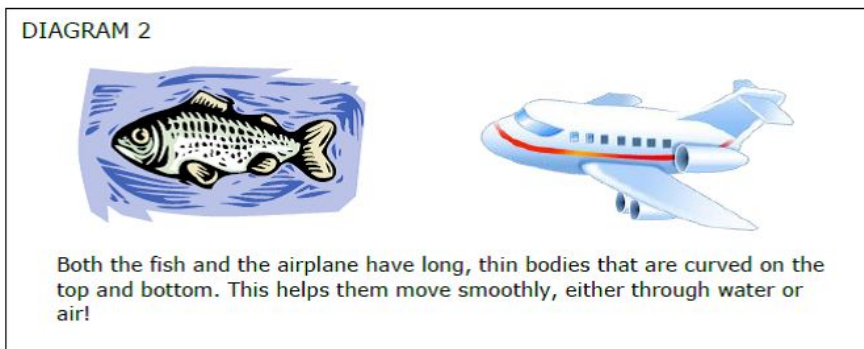
- A Air moves fastest as it moves under the wing.
- B Air moves fastest as it moves over the wing.
- C Air moves equally fast over and under the wing.
- D The movement of air is not important to how airplanes fly.





4 Diagram 2 shows:

- A How fish and birds are similar
- B How fish fins are like airplane wings
- C How the body of the fish and the airplane are similar
- D The difference between fish and airplanes



5 When there is too much friction (third paragraph), an airplane would probably:

- A Keep going at the same speed
- B Speed up
- C Slow down
- D Crash