Name _____

Could Airplanes Fly in Space?

Have you ever looked up at an airplane and wondered, “Could that plane fly all the way into space?” The answer is no—airplanes can’t fly in space. They need to stay within certain layers of Earth’s atmosphere to work properly.

Airplanes fly by using air. Their engines pull in air and push it out to move forward. Their wings also need air to create lift, which helps the plane rise into the sky. This is why airplanes fly in the lower part of the atmosphere, where there is still enough air.

Most airplanes fly in a layer called the troposphere, which is the lowest layer of the atmosphere. This is where most weather happens. Some planes, like jets, can fly into the next layer, called the stratosphere, which is higher up and calmer, with very little weather. But even in the stratosphere, there is still some air.

As you go higher into the sky, the air gets thinner and thinner. In outer space, there is no air at all. Since airplanes need air to fly, they would stop working if they went too high.

This is where rockets are different. Rockets carry their own fuel and oxygen, so they don’t need air around them to fly. That’s why rockets can leave Earth and travel through space, while airplanes cannot.

It’s important for airplane pilots to know how high they can fly. If they go too high, the engines might not get enough air. Also, passengers need air to breathe. Airplanes are designed to stay in the right part of the atmosphere where everything works safely.

So, while airplanes can soar through the sky and even fly above clouds, they are not built to travel into space. That’s a job for rockets and spacecraft. Each flying machine has its own special place to explore!