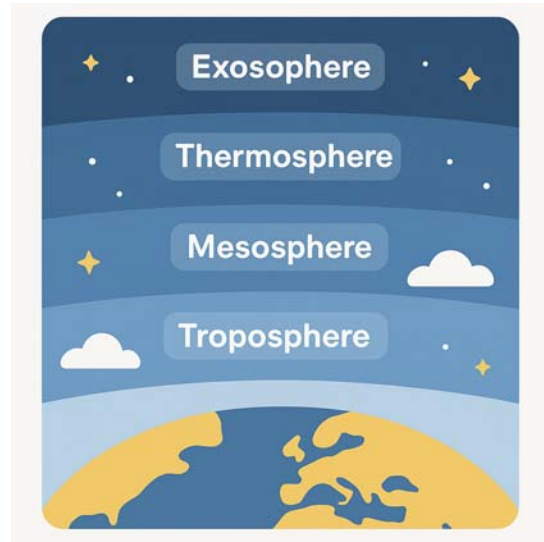


Name _____



Living in Each Layer of the Atmosphere

Earth's atmosphere is made up of layers, kind of like a big invisible blanket that surrounds our planet. These layers protect us and help keep life going. But what would happen if humans tried to live in each one?

The troposphere is the layer closest to Earth's surface. It goes up about 7 to 12 miles. This is where all weather happens—rain, snow, and clouds. It's also where we

live, breathe, and play. The air is thick enough for us to breathe without help, and it's the only layer where humans can live naturally.

Above that is the stratosphere. Jet airplanes fly here, and this layer holds the ozone layer, which protects us from the sun's harmful rays. But the air is thin and very cold. Humans can't breathe here without an oxygen tank and a pressurized suit. Without protection, we'd pass out quickly.

Next is the mesosphere. This layer burns up meteors before they hit Earth, so it protects us. But it's far too cold and the air is way too thin to live in. Temperatures here can drop to -130°F . If a human went up there without special gear, they'd freeze and run out of oxygen fast.

Then comes the thermosphere. This is where the space station orbits. The air is extremely thin, and temperatures can get very hot because of solar radiation. It might sound warm, but you wouldn't actually feel the heat because there are so few air particles. Humans could not survive without a full space suit.

The last layer is the exosphere. It slowly fades into space. Satellites orbit here. There is almost no air at all. It's freezing cold, and there's no gravity to keep you grounded. Living here would be impossible for humans without a spacecraft.

So, if you ever dream of touching the sky, remember: the higher you go, the more dangerous it becomes. Earth's surface, right here in the troposphere, is the only place where we're made to live and breathe easily!