

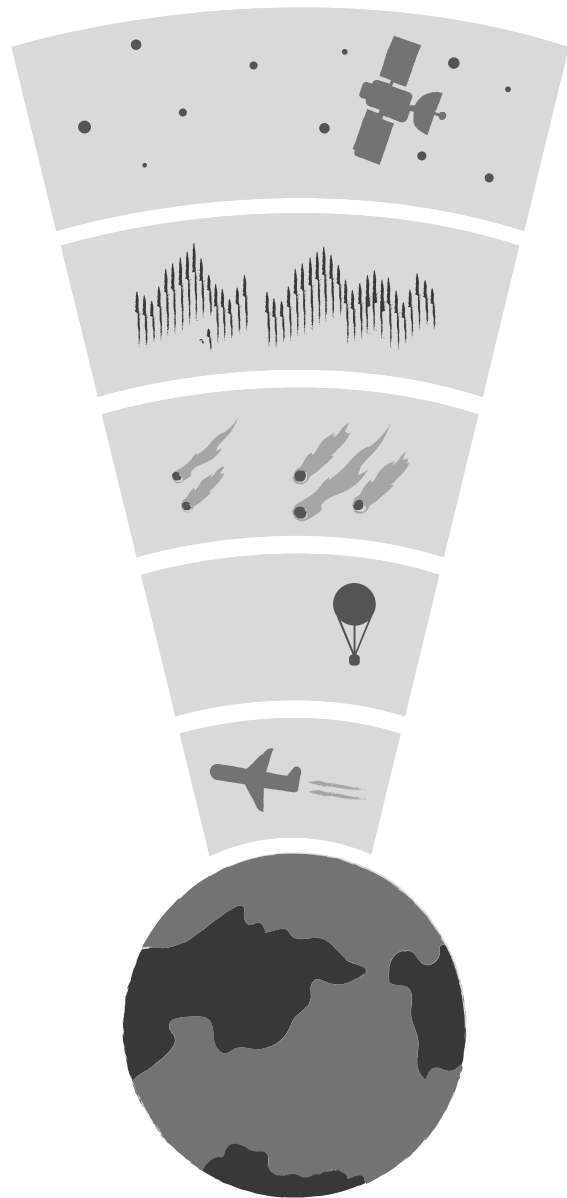
Name: \_\_\_\_\_

Date: \_\_\_\_\_

# EARTH'S ATMOSPHERE

**Directions:** Use the terms below, along with their accompanying definitions, to label each layer of Earth's atmosphere. Then, complete the diagram by coloring each layer a different color.

- Aurora Borealis
- Mesosphere
- Troposphere
- Kármán Line
- Meteors
- Earth
- Airplane
- Ozone Layer
- Stratosphere
- Satellite
- Exobase
- Thermosphere
- Exosphere
- Weather Balloon



## **Earth**

The Earth is our home planet, and it's surrounded by layers of air and gases. These layers protect us and make life possible by giving us oxygen to breathe and shielding us from harmful rays.

## **Troposphere**

The troposphere is the closest layer to the Earth. This is where all weather happens—like rain, snow, and storms. Airplanes also fly in this layer because it's the densest part of the atmosphere.

## **Stratosphere**

Above the troposphere is the stratosphere. This layer contains the ozone layer, which helps block harmful rays from the Sun. Weather balloons are often sent to this layer to study the atmosphere.

## **Mesosphere**

The mesosphere is where meteors burn up when they enter Earth's atmosphere. This is why we see "shooting stars" streak across the sky.

## **Thermosphere**

The thermosphere is a very hot layer high above the Earth. It's where the beautiful auroras (Northern and Southern Lights) appear and where satellites orbit the planet.

## **Exosphere**

The exosphere is the outermost layer of the atmosphere. It's so thin that it's almost like outer space. This is where the air blends into the vacuum of space, and some satellites are located here.

## **Aurora Borealis**

Also called the Northern Lights, this is a colorful display of lights in the sky caused by particles from the Sun colliding with gases in the thermosphere.

## **Kármán Line**

This is the imaginary boundary between Earth's atmosphere and outer space, about 100 kilometers (62 miles) above the surface. It's often considered the "edge" of space.

## **Ozone Layer**

The ozone layer is part of the stratosphere. It acts like Earth's sunscreen by absorbing most of the Sun's harmful ultraviolet rays.

## **Weather Balloon**

A weather balloon carries tools to measure temperature, air pressure, and wind high up in the atmosphere. These balloons help scientists predict weather.

## **Meteors**

Meteors are chunks of rock or metal from space. When they enter the mesosphere, they burn up, creating streaks of light called "shooting stars."

## **Satellite**

Satellites orbit Earth high in the thermosphere or exosphere. They help us with communication, weather forecasting, and exploring space.

## **Exobase**

The exobase is the lower edge of the exosphere. It marks the transition from Earth's atmosphere to outer space.

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Answer Key

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