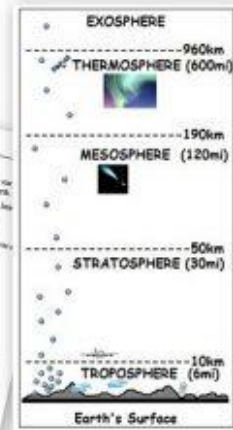
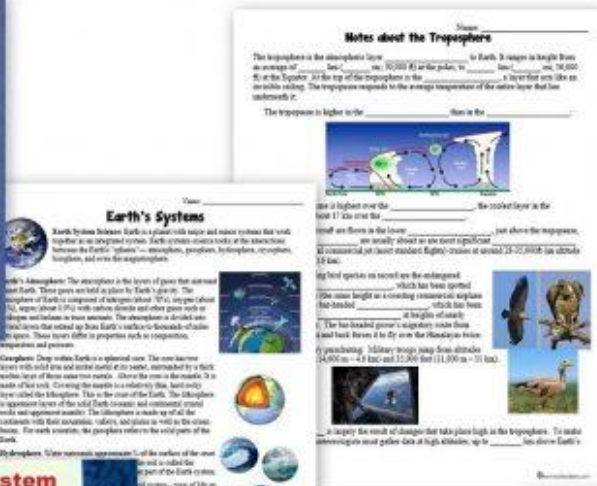
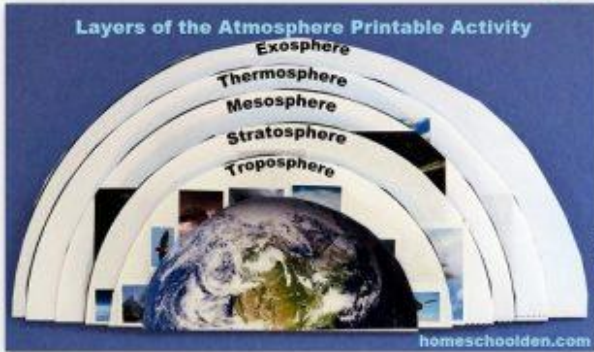


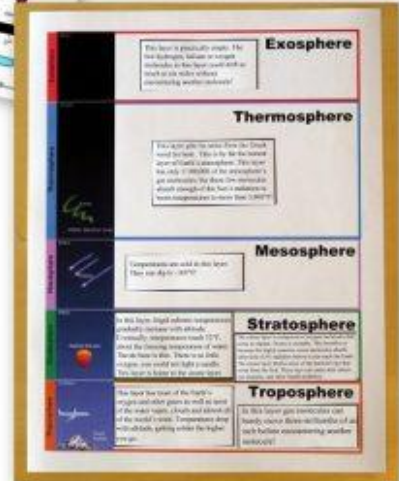
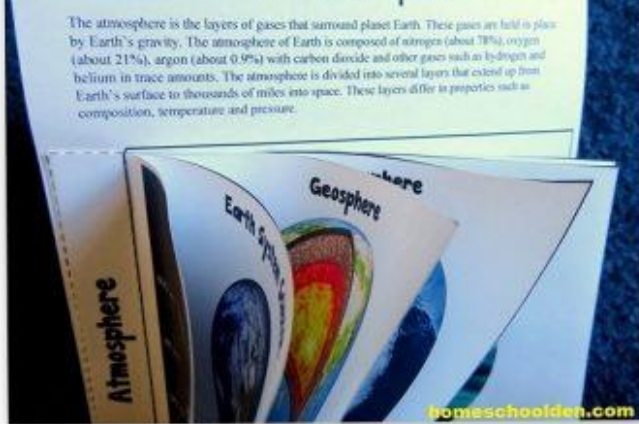


# Earth's Atmosphere Packet, 50+ pages



## Earth's Atmosphere as part of the Earth System Printable Activity

The atmosphere is the layers of gases that surround planet Earth. These gases are held in place by Earth's gravity. The atmosphere of Earth is composed of nitrogen (about 78%), oxygen (about 21%), argon (about 0.9%) with carbon dioxide and other gases such as hydrogen and helium in trace amounts. The atmosphere is divided into several layers that extend up from Earth's surface to thousands of miles into space. These layers differ in properties such as composition, temperature and pressure.



# Earth's Atmosphere Introductory Activity

## Notebook Page or Interactive Notebook Page Activity

Name \_\_\_\_\_

### Earth's Systems

**Earth System Science:** Earth is a planet with major and minor systems that work together as an integrated system. Earth system science looks at the interactions between the Earth's "spheres"—atmosphere, geosphere, hydrosphere, cryosphere, biosphere, and even the magnetosphere.

**Earth's Atmosphere:** The atmosphere is the layers of gases that surround planet Earth. These gases are held in place by Earth's gravity. The atmosphere of Earth is composed of nitrogen (about 78%), oxygen (about 21%), argon (about 0.9%) with carbon dioxide and other gases such as hydrogen and helium in trace amounts. The atmosphere is divided into several layers that extend up from Earth's surface to thousands of miles into space. These layers differ in properties such as composition, temperature and pressure.

**Geosphere:** Deep within Earth is a spherical core. The core has two layers with solid iron and nickel metal at its center, surrounded by a thick molten layer of those same two metals. Above the core is the mantle. It is made of hot rock. Covering the mantle is a relatively thin, hard rocky layer called the lithosphere. This is the crust of the Earth. The lithosphere is an uppermost layer of the solid Earth (oceanic and continental crustal rocks and uppermost mantle). The lithosphere is made up of all the continents with their mountains, valleys, and plains as well as the ocean basins. For earth scientists, the geosphere refers to the solid parts of the Earth.

**Hydrosphere:** Water surrounds approximately 71% of the surface of the crust with great oceans. All water on, in and below the soil is called the hydrosphere. The cryosphere is the frozen water part of the Earth system.

**Biosphere:** The biosphere is the global ecological system - zone of life on earth. It is the part of the earth's crust, water, and atmosphere that supports life. The biosphere is a worldwide ecosystem composed of living organisms (biotic) and the abiotic (nonliving) factors from which they derive energy and nutrients. It is the global system integrating all living beings and their relationships, including their interaction with the other Earth systems (the lithosphere, hydrosphere, atmosphere and so forth).

**Magnetosphere:** The magnetosphere is the space around a star or planet where the magnetic field can be detected. Charged particles in this area can be affected by the star or planet's magnetic field.







Name \_\_\_\_\_

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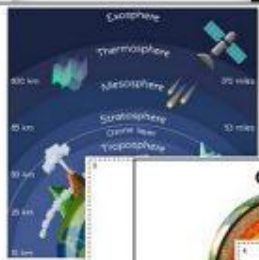
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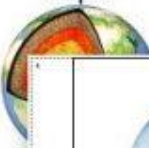
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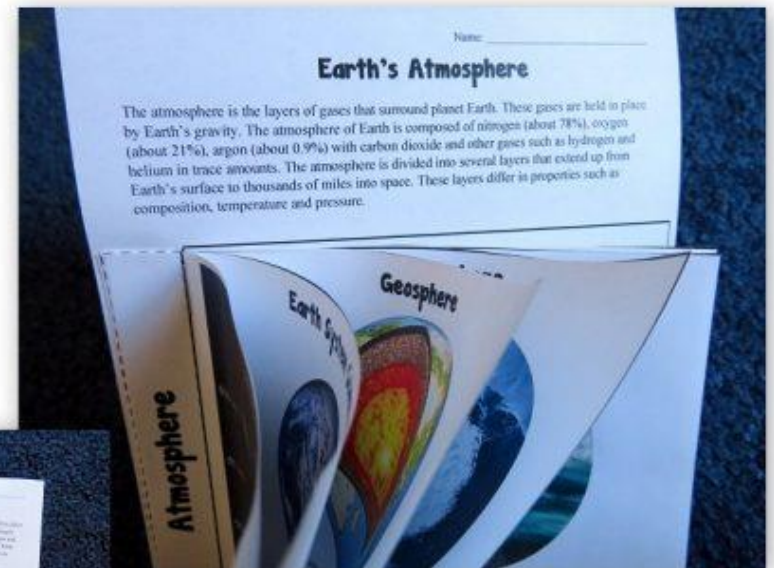
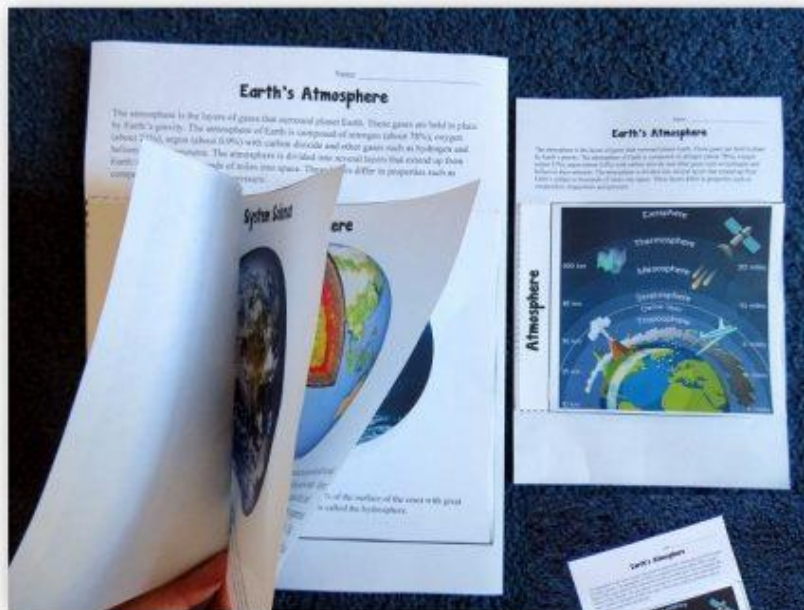
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# **Introduction to Earth System Science & Earth's Atmosphere Notebook Page Activity**



# Layers of the Atmosphere Note-Taking Page

**Layers of the Atmosphere**

The atmosphere is a mixture of gases, with no definite end or beginning. Gases are made up of molecules and atoms. These particles are in constant motion, colliding with each other and with the surface of the Earth. The atmosphere is a mixture of gases, with no definite end or beginning. Gases are made up of molecules and atoms. These particles are in constant motion, colliding with each other and with the surface of the Earth.

The atmosphere is divided into five layers, each with its own unique characteristics. The layers are the Troposphere, Stratosphere, Mesosphere, Thermosphere, and Exosphere. Each layer has a different temperature profile and contains different types of gases and particles.

**Exosphere**

The outermost layer of the atmosphere, the exosphere, is the layer where the atmosphere meets outer space. It is the layer where the atmosphere is thinnest and where the temperature is the lowest. The exosphere is the layer where the atmosphere is thinnest and where the temperature is the lowest.

**Thermosphere**

The thermosphere is the layer of the atmosphere where the temperature increases with altitude. It is the layer where the atmosphere is thinnest and where the temperature is the highest. The thermosphere is the layer where the atmosphere is thinnest and where the temperature is the highest.

**Mesosphere**

The mesosphere is the layer of the atmosphere where the temperature decreases with altitude. It is the layer where the atmosphere is thinnest and where the temperature is the lowest. The mesosphere is the layer where the atmosphere is thinnest and where the temperature is the lowest.

**Stratosphere**

The stratosphere is the layer of the atmosphere where the temperature increases with altitude. It is the layer where the atmosphere is thinnest and where the temperature is the highest. The stratosphere is the layer where the atmosphere is thinnest and where the temperature is the highest.

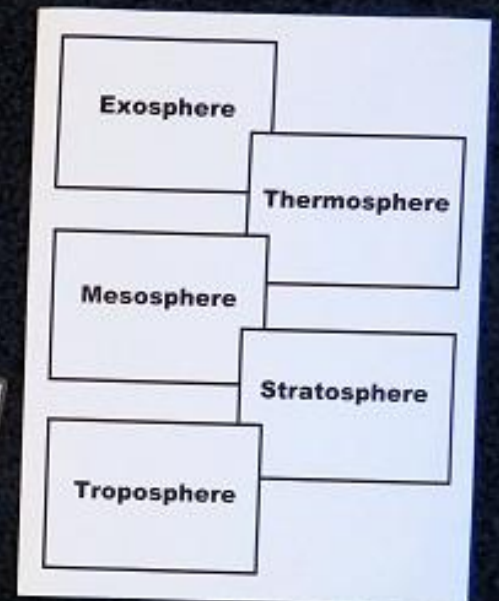
**Troposphere**

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**and/or cut-and-paste notes activity**

**homeschoolden.com**

## Layers of the Atmosphere Sorting Cards





## Layers of the Atmosphere Printable Activity



## Layers of the Atmosphere Activity



## Sun, Light & Our Atmosphere

There are the softener of the Sun's radiation, although too much exposure to UV rays can lead to skin cancer. Ultraviolet (UV) radiation is absorbed in or near the atmosphere, especially near the ozone layer.

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[illegible]