

# Empower Learner Activity

## Atmosphere Unit

Directions: For each of the following statements, copy and paste the following icons where they apply to you:



if you can do this by yourself



if you can do this with some help



if you can do this with a LoT of help

### Before

I Can... describe the mixture of gases in Earth's atmosphere.



I Can... list the layers of the atmosphere.



I Can... describe how air pressure and temperature change as altitude increases.



I Can... describe how energy from the Sun influences the atmosphere.



I Can... describe describe the greenhouse effect.



I Can... define "weather."



I Can... compare and contrast relative and absolute humidity.



I Can... identify at least 5 cloud types.



### After

I Can... describe the mixture of gases in Earth's atmosphere.



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*Before the unit begins, answer the following questions in the "Before" column. For true/false questions, if you disagree, you must explain why.*

Question	Before	After
How does Earth's atmosphere affect life on Earth?	It keeps us warm and provides life so we don't burn, or get hit by meteors.	It provides life and protects us from space objects. It also allows certain amounts of energy to come into the Earth.
True or False: Air is empty space.	False because it is full of invisible gasses such as oxygen, CO <sub>2</sub> and Nitrogen.	False because it is still full of gasses such as Oxygen, CO <sub>2</sub> and Nitrogen.
True or False: Earth's atmosphere is important to living organisms.	True	TRUE
True or False: All energy from the Sun reaches Earth's surface.	False because lots of it is absorbed or reflected by the atmosphere or the magnetic field.	False because lots of it is reflected or absorbed by the different
True or False: Earth emits energy back into the atmosphere.	True	True
True or False: Uneven heating in different parts of the atmosphere creates air circulation patterns.	True	True
True or False: Warm air sinks and cold air rises.	False. WARM AIR RISES= common sense.	false

Name: Summer

Pre-test: 50%

Post-test: 92%

<b>True or False:</b> Weather is the long-term average of atmospheric patterns of an area.	<b>True</b>	<b>True</b>
<b>True or False:</b> All clouds are at the same altitude within the atmosphere.	<b>False, some are low to the ground like fog while others are high in the sky, don't know what it's called though.</b>	<b>False they're in the troposphere, but they are mostly all at different altitudes.</b>