



High School Science Virtual Learning

**Environmental Science**

**Atmosphere**

April 13, 2020



High School Applied Biological Science  
Lesson: April 13, 2020

**Objective/Learning Target:**

Students will understand how the atmosphere affects Earth.



## Let's Get Started:

1. What are the layers of the atmosphere?
2. Why is the atmosphere important?



## Let's Get Started: Answer Key

1. Troposphere, stratosphere, mesosphere, thermosphere  
(can also list ionosphere and exosphere)
2. Atmosphere is an insulating layer that helps Earth maintain a stable temperature, protects Earth from excess heat/radiation from the sun, plays a role in the water cycle, and contains gases necessary for life.



# Lesson Activity:

## Directions:

1. Explore the website linked below, then answer the questions on the next slide.

## Links:

[Importance of the Atmosphere](#)



## Practice Questions:

1. Why is the atmosphere important?
2. How does the atmosphere keep Earth's temperature moderate?
3. Explain how atmosphere benefits Earth's water cycle.
4. What are the two main gasses that make up the atmosphere?
5. Which layer of the atmosphere contains our ozone layer?
6. What is the purpose of the ozone layer?



Once you have completed the practice questions check with the **answer** key.

1. It traps heat from the sun, moderates temperature, and protects Earth from UV rays
2. The atmosphere acts like a blanket, holding in enough heat to keep us warm while blocking out excessive heat and radiation from the sun
3. The atmosphere acts as a reservoir for water vapor, allowing condensation to occur and form clouds, which release precipitation.
4. The atmosphere is 78% nitrogen and 21% oxygen
5. Stratosphere
6. The ozone layer is what blocks out radiation



## More Practice:

1. What would happen if there were no atmosphere?
2. What happens in the mesosphere and can be witnessed by us on the ground? What is this event called?
3. Which layer of atmosphere can have satellites orbiting within it and is also where we see the Northern Lights?

If you don't know the answers, check out the link below.

[Layers of Earth's Atmosphere](#)



## Answers to More Practice:

1. Temperatures would be frigid at night and scorching during the day.
2. Meteors burn up, called meteor showers
3. thermosphere