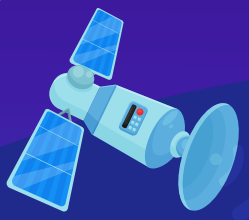
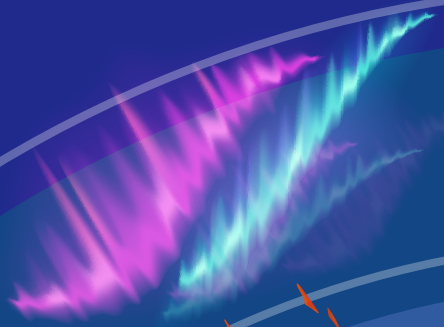
LAYERS OF THE ATMOSPHERE



EXOSPHERE
800–3000 KM

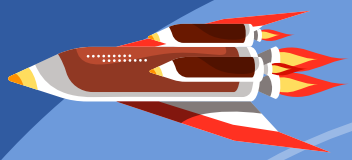
EXOBASE
700 – 1000 KM



THERMOSPHERE
80–90 TO 800 KM

KARMAN LINE
100 KM

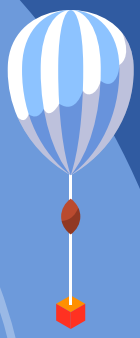
MESOSPHERE
40–50 TO 80–90 KM

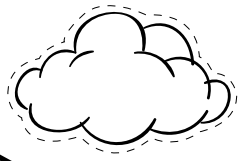


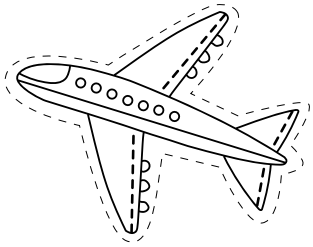
STRATOSPHERE
11–50 KM

OZONE LAYER
20–30 KM

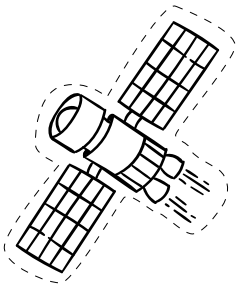
TROPOSPHERE
0 – 10 KM







THERMOSPHERE



EXOSPHERE

MESOSPHERE

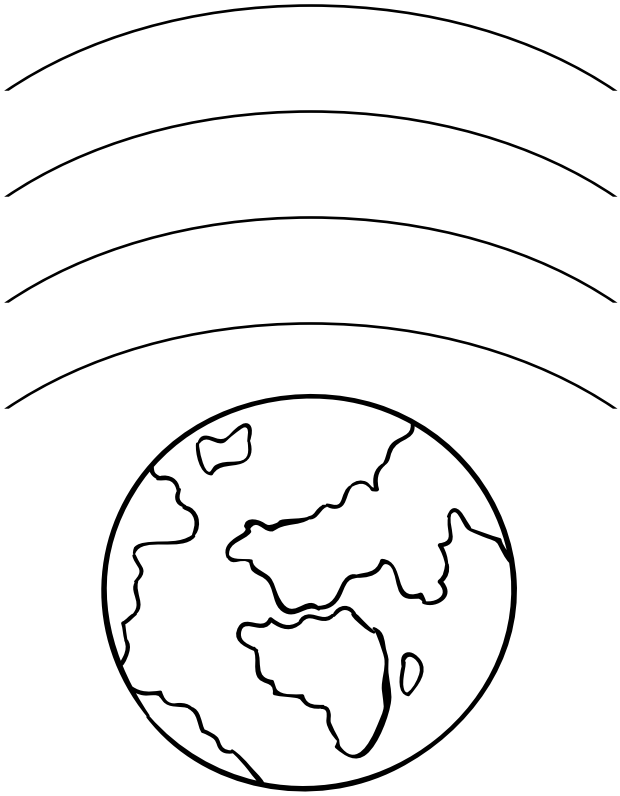
STRATOSPHERE

TROPOSPHERE

THE ATMOSPHERE

Directions: Answer and label the layers of the atmosphere.

Mesosphere	Troposphere	Thermosphere	Exosphere	Stratosphere



Directions: Match the layer with what happens in it and with the distance from the surface.

Mesosphere	90 – 500 km	Airplanes
Thermosphere	50 km	Meteors
Troposphere	50 – 85 km	Satellites
Exosphere	800–3000 km	Auroras
Stratosphere	0 – 10 km	Weather

WHAT'S ON YOUR MIND?

On the first box, illustrate the layer of the atmosphere. On the second and third boxes, give the characteristics of the layers of the atmosphere.

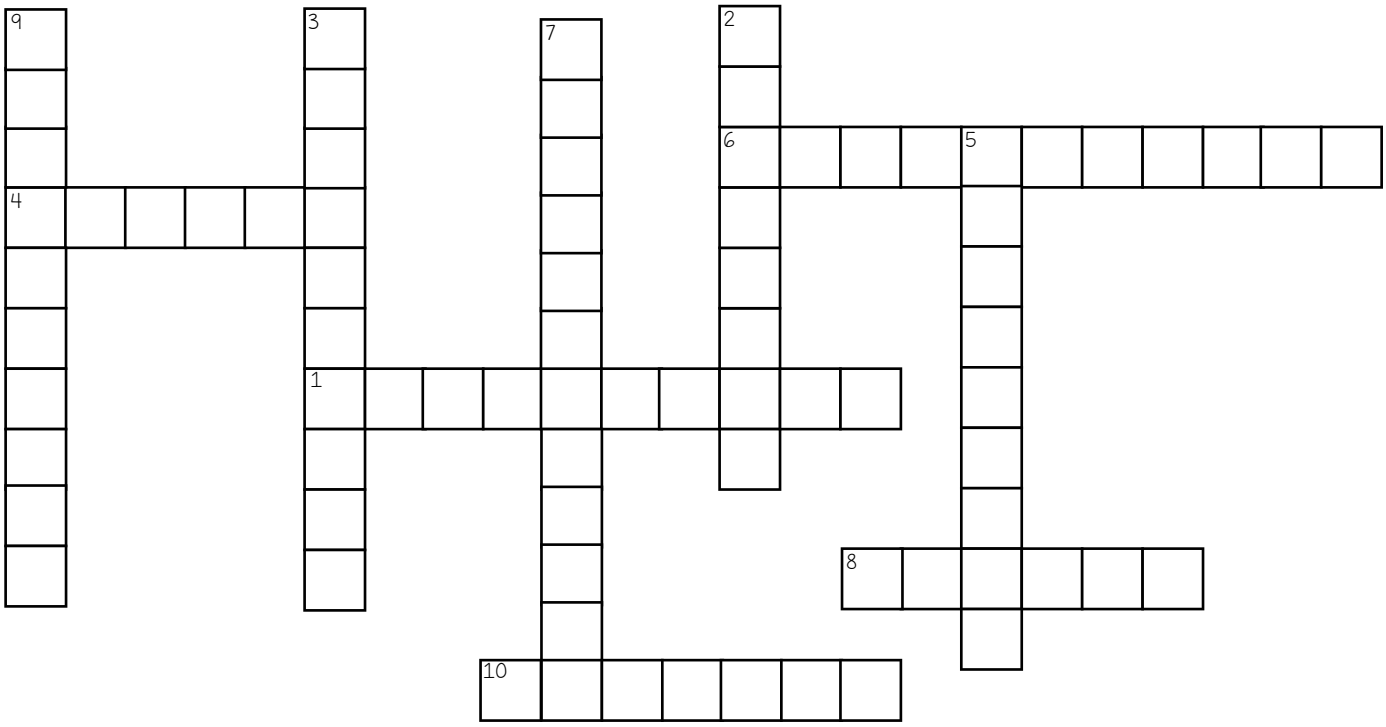
Troposphere **LAYER**			
Stratosphere **LAYER**			
Mesosphere **LAYER**			
Thermosphere **LAYER**			
Exosphere **LAYER**			

ATMOSPHERE WORDSEARCH

A A F O O T P R I N T B N H J J P A
R G B N R V E E Q E X I U J L K H G
G X C F O X Y G E N A A N N M H O X
O Z O N E A M P O M O Y R Y Y H T Z
N C A A N B B C A D U S T E W L O C
W F Y U I O O P P D V R E M T A S F
A Y B R T K K N N R Y R R M A A Y S
U U V F R A A M E T H A N E H H N T
B N N A O E E T Y A B B A S D N T R
A H H A G J J K K L K H V O V E H A
A A C H E M I C A L S H T S B U E T
A A A A N A W U K D E O D P B T S O
A F E R Y G H J K Q A A M H N R I S
C A R B O N D I O X I D E E Y A S P
B B N N G R R K K L G A A R I L A H
A N B Y R U E R L D G A G E U A A E
A P A R T I C U L A T E G A P O O R
U F R R Q F A W E A T H E R U Y A E

OZONE
PHOTOSYNTHESIS
FOOTPRINT
METHANE
ARGON
CHEMICALS
PARTICULATE
DUST
NEUTRAL
WEATHER
OXYGEN
CARBON DIOXIDE
STRATOSPHERE
MESOSPHERE
NITROGEN

ATMOSPHERE
CROSSWORD PUZZLE



ACROSS

1. It is composed of about 78% nitrogen, 21% oxygen, and one percent other gases.
4. It is the second most abundant gas in the atmosphere.
6. It is a physical quantity that expresses hot and cold or a measure of the average kinetic energy of the atoms or molecules in the system.
8. It is the result of disturbances in the magnetosphere caused by the solar wind.
10. It is a state of the atmosphere at a particular place during a short period of time. It involves such atmospheric phenomena as temperature, humidity, precipitation, air pressure, wind, and cloud cover.

DOWN

2. It is a common element in the universe, estimated at seventh in total abundance in the Milky Way and the Solar System.
3. It is a layer in the stratosphere which absorbs most of the ultraviolet radiaton reaching the earth from the sun.
5. It is a thin, atmosphere-like volume surrounding a planet or natural satellite where molecules are gravitationally bound to that body, but where the density is so low that the molecules are essentially collisionless.
7. It is located above the troposphere and below the mesosphere.
9. It is where Earth's atmosphere meets space.

ALL ABOUT
THE ATMOSPHERE

Directions: Fill in the missing words.

1. The Earth is surrounded by a blanket of air called _____ .

2. The atmosphere is a mixture of _____ .

3. Ozone keeps most of the sun's harmful _____ from reaching the earth.

4. _____, _____, and _____ are the three most abundant elements in the atmosphere.

5. The layer of atmosphere closest to earth is the _____ .

6. About three fourths of the atmosphere is _____ .

7. The layers of the atmosphere are broken down into _____ .

8. _____ is the coldest layer of the atmosphere.

9. The temperature in the troposphere _____ as the altitude increases.

10. The troposphere is the atmospheric layer closest to the planet and contains the _____ of the mass of the total atmosphere.

11. Most atmospheric ozone is concentrated in a layer in the stratosphere, about _____ above the Earth's surface.

12. The closer we get to the ground, the _____ the atmospheric pressure due to the weight of air particles above.