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WELCOME TO THE ONLINE CLASS

SESSION NO.: 4
CLASS: 5
SUBJECT: SCIENCE
CHAPTER NUMBER: 12
CHAPTER NAME: OUR LIFE SUPPORT
TOPIC: LAYERS OF ATMOSPHERE, COMPOSITION OF AIR, CONT...

Website: www.odmegroup.org
Email: info@odmps.org
Toll Free: 1800 120 2316
Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

LEARNING OBJECTIVE

To enable the learner to:

- **learn the different layers of the atmosphere.**
- **understand the importance of each layer of the atmosphere.**
- **know the composition of air.**
- **list the uses of gases in real life.**

LET'S RECAP

- What do you call the thick blanket of air that is surrounding our earth?
- Burning candle slowly extinguishes when an inverted glass is put on it. Justify the statement.
- Where does the gaseous exchange takes place in our body?
- Mention some uses of air.

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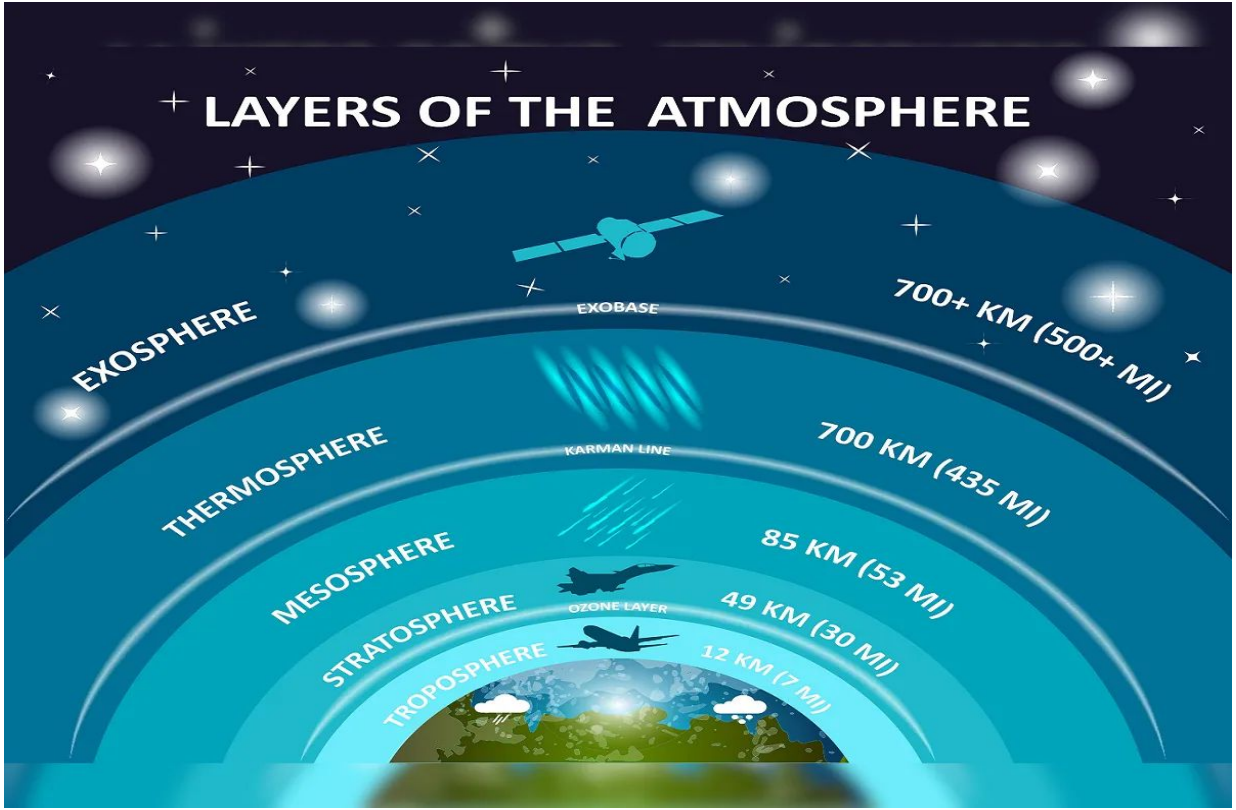
LAYERS OF ATMOSPHERE

LAYERS OF ATMOSPHERE

- Troposphere
- Stratosphere
- Mesosphere
- Thermosphere
- Exosphere



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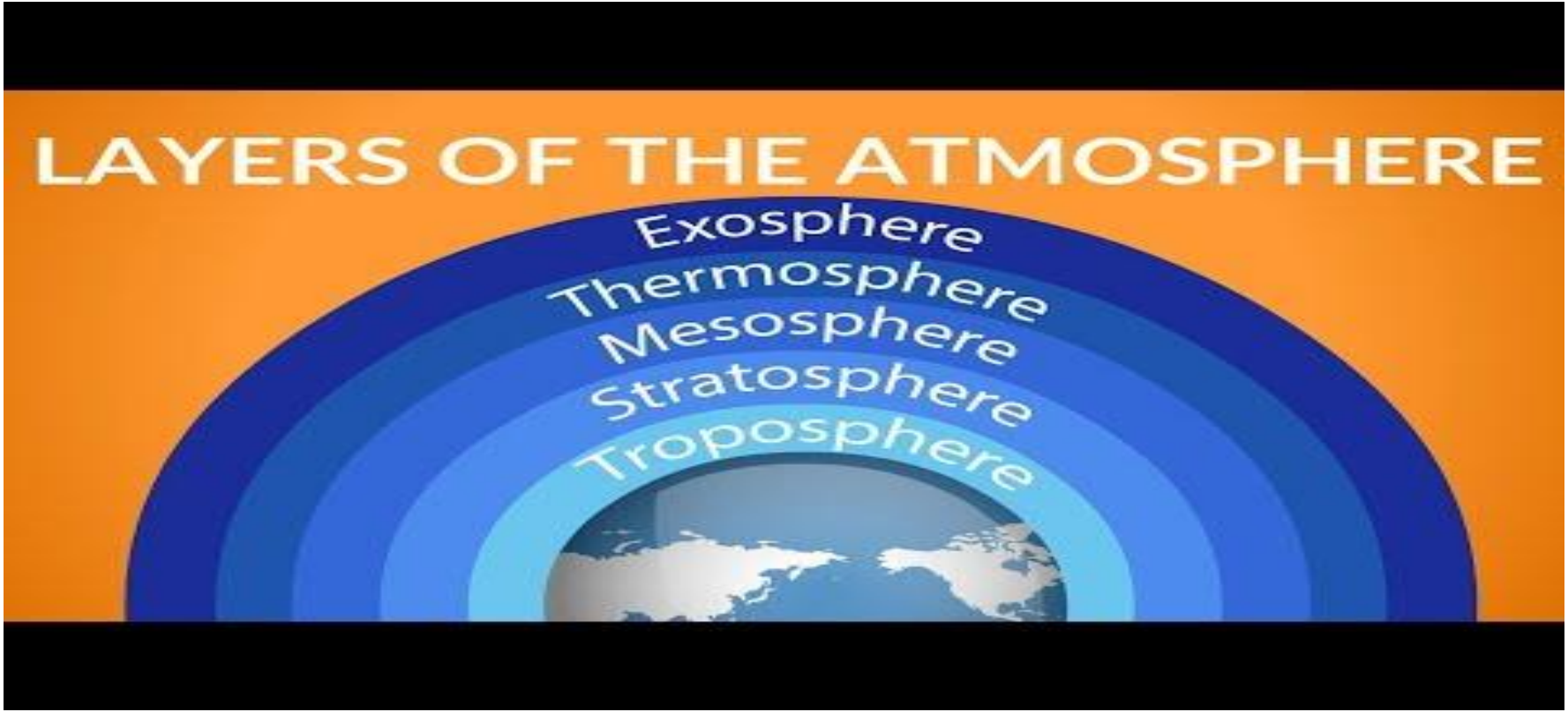
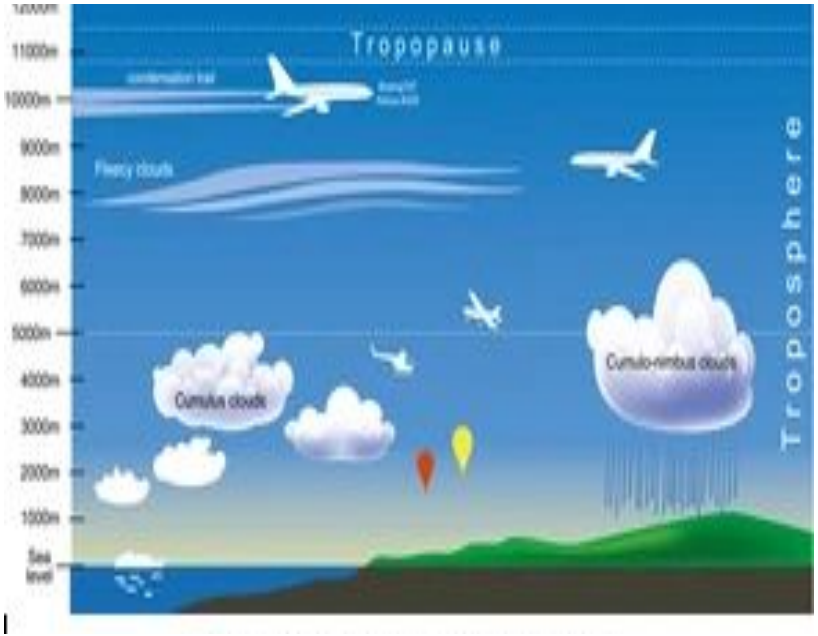
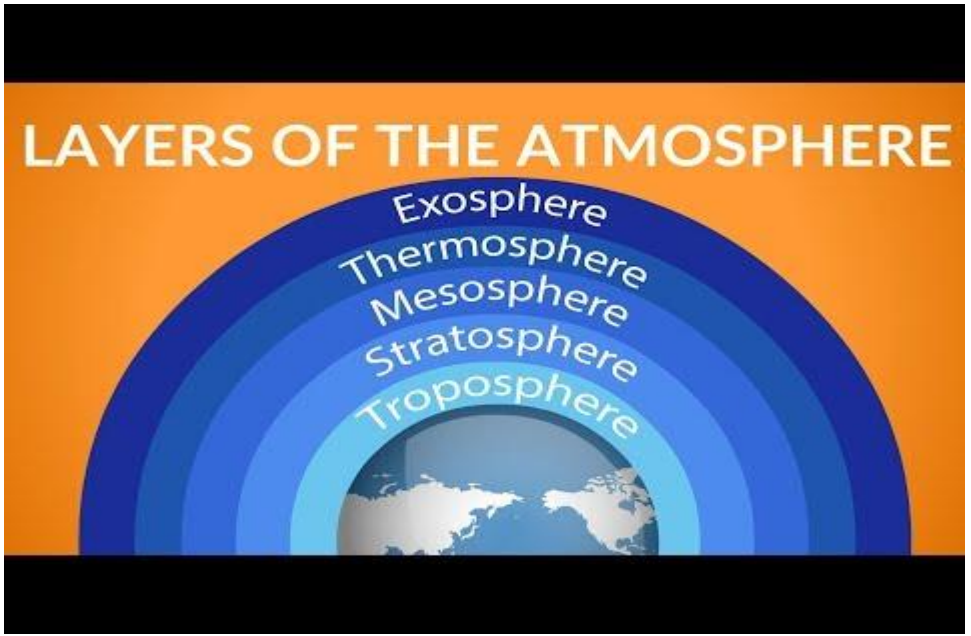
LAYERS OF ATMOSPHERE



TROPOSPHERE

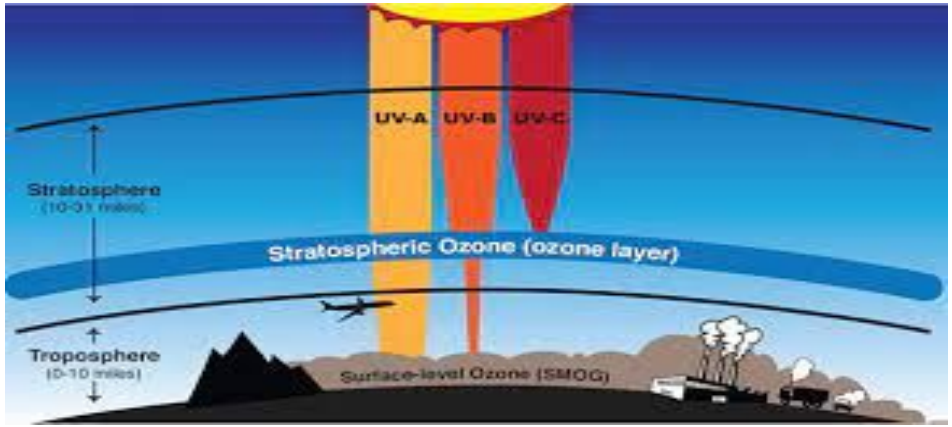
- This is the first layer above the Earth's surface.
- Weather changes takes place here.

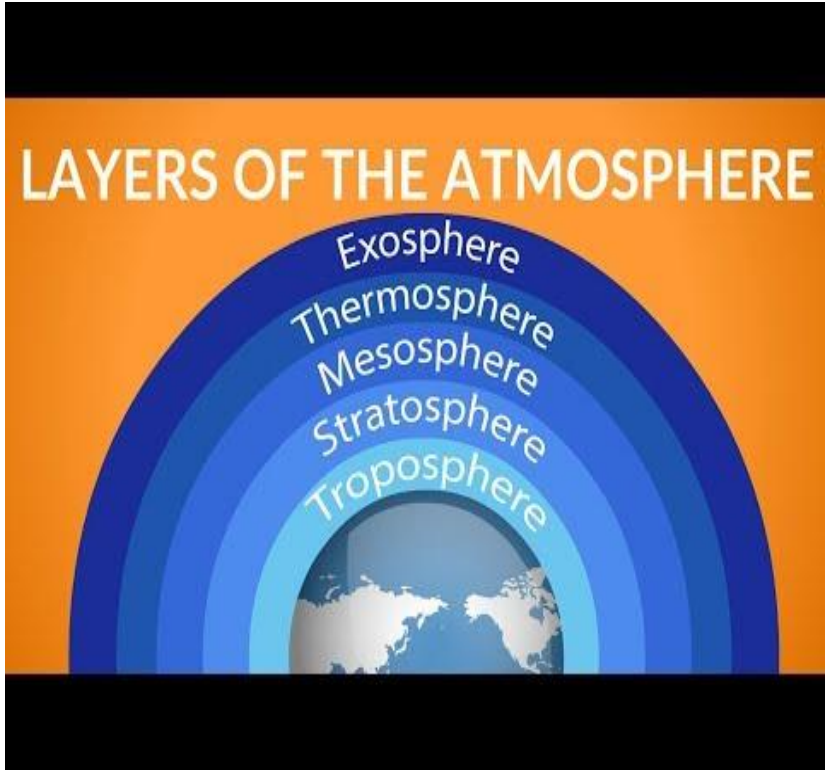




STRATOSPHERE

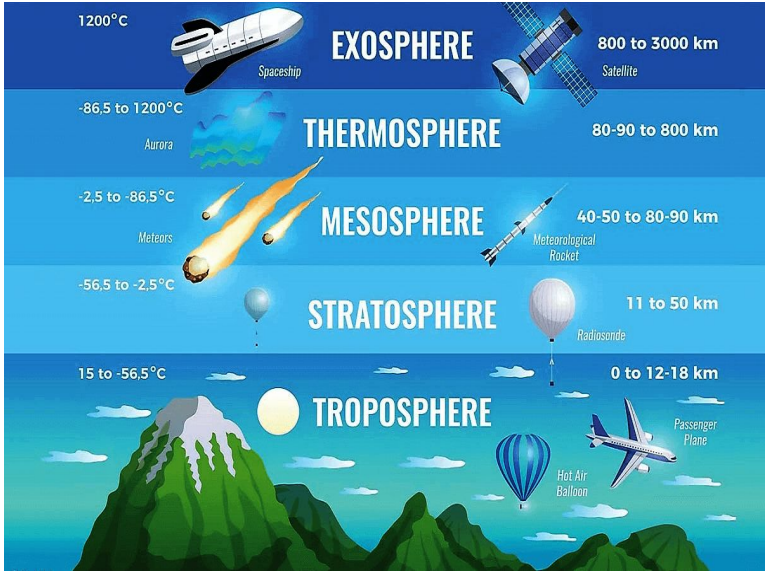
- It is the second layer.
- Here, jet aircraft fly.
- Ozone gas is present in this layer.
- Ozone absorbs harmful ultraviolet rays from the sun which causes skin cancer.

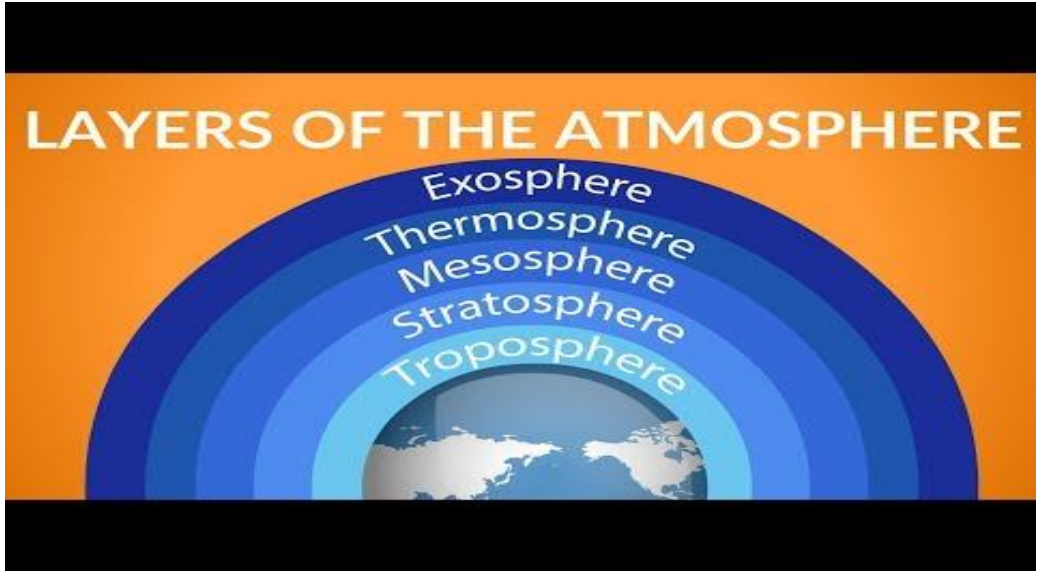




MESOSPHERE

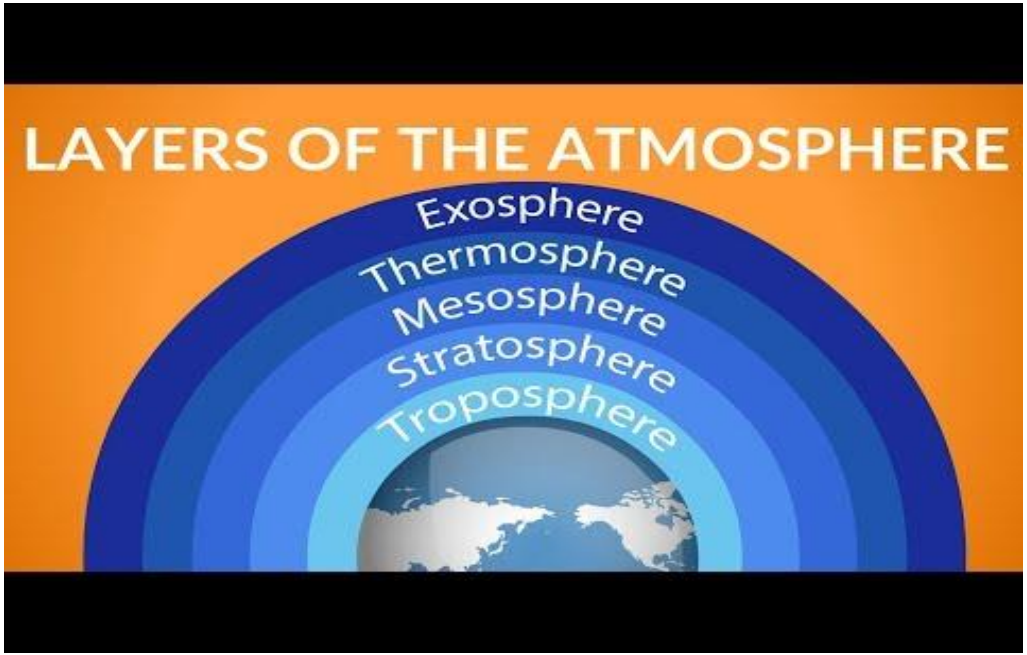
- This is the third layer.
- Meteorites or small rocks moving above about in space burn out in this layer and therefore, do not reach the surface of the earth.





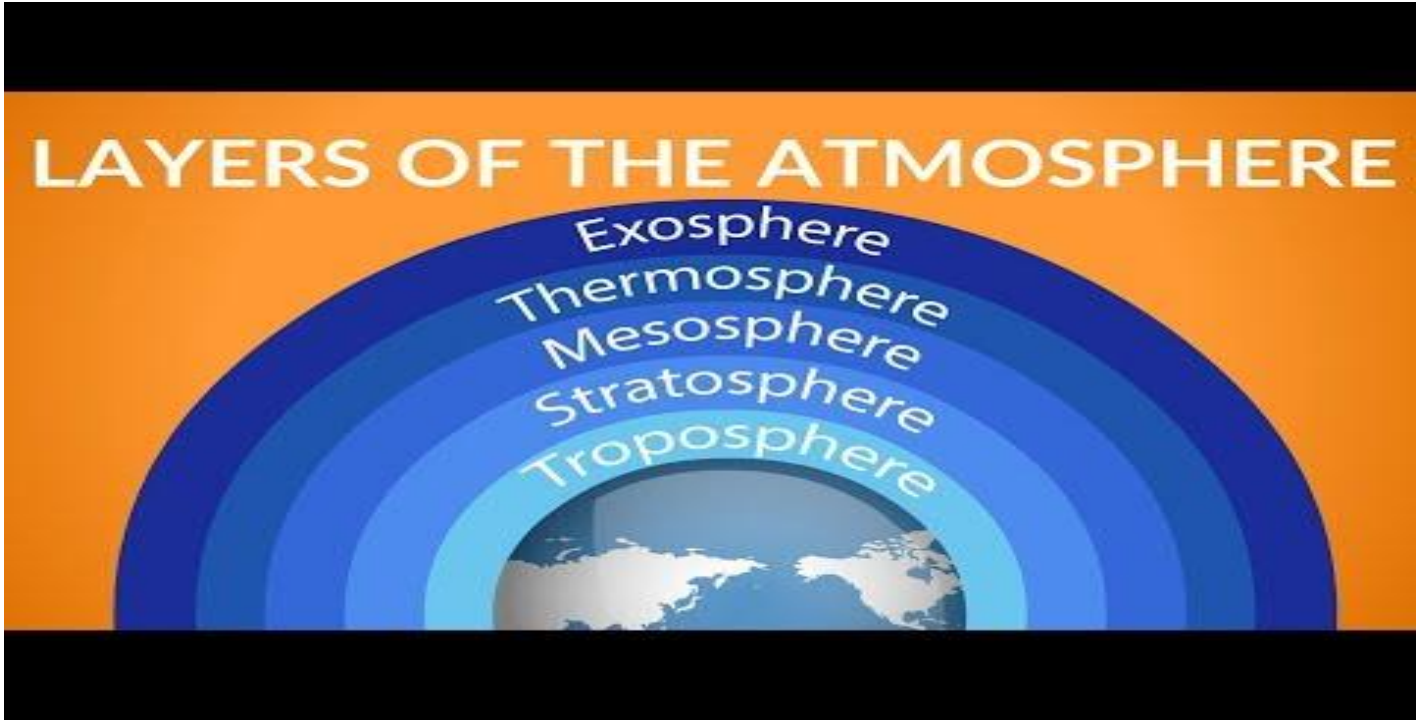
THERMOSPHERE

- It is the fourth layer.
- Space shuttles move about in this layer.



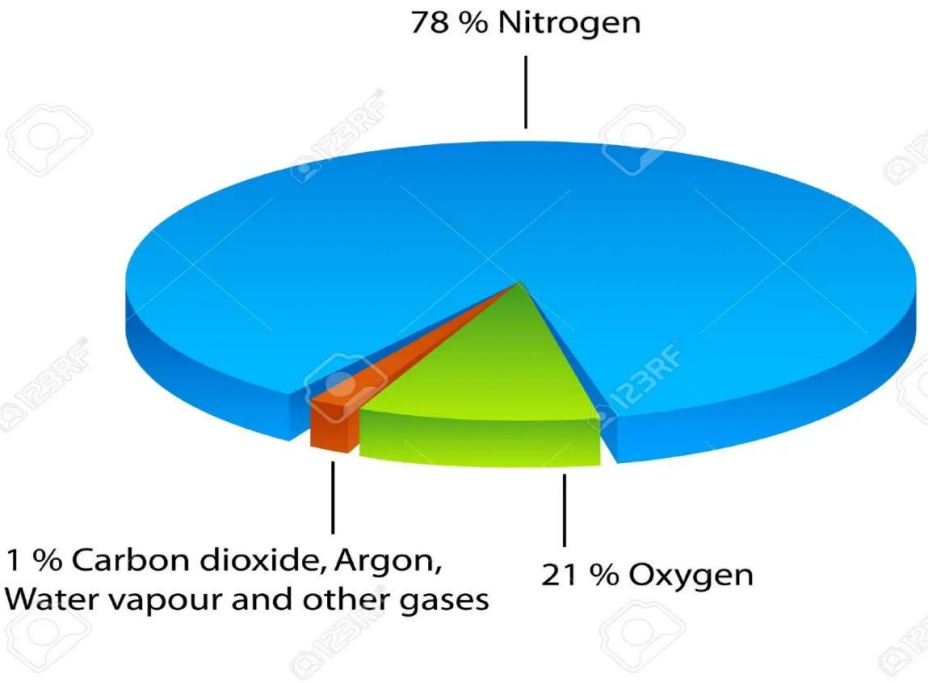
EXOSPHERE

- **This is the fifth layer of the atmosphere.**



COMPOSITION OF AIR

- The air we breathe contains various gases.
- Air consists of 78% nitrogen, 21% oxygen and less than 1% of argon, carbon dioxide and other gases.
- Air also contains water vapor, dust and smoke.



OXYGEN

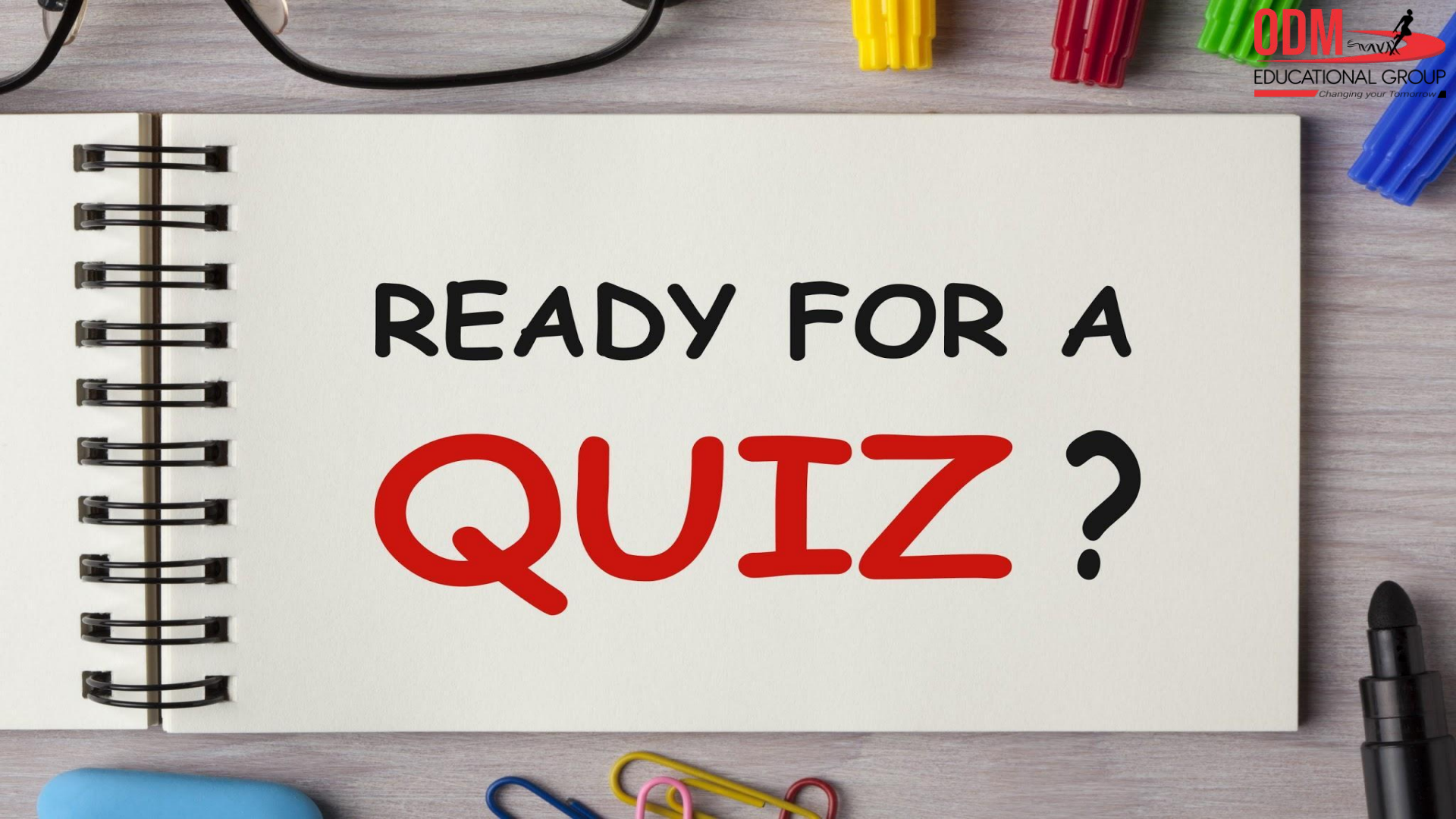
- It is the most important gas for the survival of living beings.
- All living things need oxygen.
- It is also needed for burning.

NITROGEN

- Living things do not use nitrogen directly from the air.
- Nitrogen is used by the plants with the help of bacteria in the soil.
- Nitrogen is also added to the soil by using chemical fertilizers.
- Animals get nitrogen from plants, meat and fish.

SUMMARY

- The different layers of atmosphere are: troposphere, stratosphere, mesosphere, thermosphere and exosphere.
- Air consists of 78% nitrogen, 21% oxygen and less than 1% of argon, carbon dioxide and other gases.
- Air also contains water vapor, dust and smoke.
- Oxygen is the most important gas for the survival of living beings and also needed for burning.
- Living things do not use nitrogen directly from the air.
- Nitrogen is used by the plants with the help of bacteria in the soil.
- Nitrogen is also added to the soil by using chemical fertilizers.
- Animals get nitrogen from plants, meat and fish.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READY FOR A
QUIZ ?

The blanket of air that surrounds the earth is called the atmosphere. It has five layers. Troposphere is the layer closest to the earth's surface. Here, weather changes takes place. Stratosphere is the layer next to troposphere and it contains ozone layer in it. Ozone layer protects us from the harmful rays of the Sun. Next to stratosphere we have mesosphere. This is the layer that burns out meteors or small rocks that comes towards us. Thermosphere lies just above mesosphere. Space shuttles move in this layer. Exosphere is the outermost layer of the atmosphere.

1. Which layer contains ozone?

Ans: Stratosphere

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2. Meteorites or rock pieces get burnt in this layer of atmosphere.

Ans: Mesosphere

The blanket of air that surrounds the earth is called the atmosphere. It has five layers. Troposphere is the layer closest to the earth's surface. Here, weather changes takes place. Stratosphere is the layer next to troposphere and it contains ozone layer in it. Ozone layer protects us from the harmful rays of the Sun. Next to stratosphere we have mesosphere. This is the layer that burns out meteors or small rocks that comes towards us. Thermosphere lies just above mesosphere. Space shuttles move in this layer. Exosphere is the outermost layer of the atmosphere.

3. Name the outermost layer of the atmosphere.

Ans: Exosphere

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HOMEWORK

- Draw a picture to show the composition of air.
- Do questions A & B in your notebook.

LEARNING OUTCOME

The learner will be able to:

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- **list the uses of gases in real life.**

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THANKING YOU

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