

Weekly Homework
11th Week

الإدارة المركزية للتعليم العام
إدارة تنمية مادة العلوم



2026

Integrated Sciences

1st Secondary
First Term

إشراف

د. عزيزة رجب خليفة
مستشار مادة العلوم

إشراف عام

د. هالة عبدالسلام خفاجي
رئيس الإدارة العامة للتعليم العام

مكتب مهتشار
مادة العلوم

سعيد محمد
محمد عبد اللطيف
عبدالله مصطفى

إعداد

مجدي فتحي
عمرو مالي

مراجعة

محمد عبداللطيف
محمد عنتر



Ch (2) Lesson 1:
Components of layers of the atmosphere

First: Choose the correct answer: -

- 1)is the most abundant gas in Earth's atmosphere.
 - a) Oxygen gas.
 - b) Nitrogen gas.
 - c) Hydrogen gas.
 - d) Carbon dioxide gas.
- 2) All of the following are from the main role of the atmosphere except..
 - a) protects Earth from harmful solar radiation.
 - b) maintain the planet's surface temperature at moderate levels.
 - c) plays a major role in the water cycle in nature.
 - d) control the Earth's gravitational force.
- 3) Although nitrogen gas is highly abundant in the atmosphere, its oxides are found in very small quantities because...
 - a) it is produced from the decomposition of animals and plants.
 - b) its reactions require special conditions such as lightning or extremely high temperatures.
 - c) it reacts with oxygen at low temperatures.
 - d) it reacts with oxygen during natural phenomena such as rainfall.
- 4) Argon makes up about of the Earth's atmosphere
 - a) 0.04%
 - b) 0.93%
 - c) 78%
 - d) 21%



- 5) is one of the greenhouse gases that trap heat within the Earth's atmosphere.
- a) Nitrogen. b) Carbon dioxide.
c) Oxygen. d) Argon.
- 6) Most weather phenomena occur in the
- a) Mesosphere. b) Troposphere.
c) Thermosphere. d) Ionosphere.
- 7) The troposphere layer extends up to about above the Earth's surface.
- a) 100 km. b) 20 km. c) 10 km. d) 50 km.
- 8) The stratosphere extends from an altitude of km up to about km above Earth's surface.
- a) 10-50 b) 10-30 c) 20-30 d) 10-40
- 9) The thickness of the mesosphere is about.....
- a) 20 km. b) 30 km. c) 50 km. d) 80 km.
- 10) In which layer, nitrogen and oxygen gases absorb solar radiation, causing temperatures to rise till over 2000°C?
- a) Mesosphere. b) Troposphere.
c) Stratosphere d) Thermosphere.

11) Which layer used in long-distance wireless communication due to its ability to reflect radio waves?

- a) Troposphere.
- b) Stratosphere
- c) Mesosphere.
- d) Ionosphere

12) The is an ideal region for placing satellites and spacecraft.

- a) troposphere.
- b) stratosphere
- c) mesosphere.
- d) exosphere

13) The following table shows four gases W, X, Y, and Z and the effective speed (V_{rms}) of the molecules of each

The gas	The effective (V_{rms}) of its molecules
W	8.2 km/s
X	10 km/s
Y	11.2 km/s
Z	15 km/s

Which gases may become rare or entirely absent on the surface Earth?

- a) W and X only
- b) Y and Z only
- c) W and Y only
- d) X and Z only

Second: Essay questions

(1) Give reasons:

- 1) Air temperature decreases with altitude in the troposphere.
- 2) The Stratosphere layer is the preferred layer for aircraft flight.
- 3) The exosphere is an ideal region for placing satellites and spacecraft.

(2) What will happen when.....?

- 1) the high-energy charged particles from the sun reach Earth, and are influenced by the planet's magnetic field.
- 2) reaching the effective speed of a gas molecules on Earth's surface till about 20 km/s

(3) Look at this picture and answer:

- a) What is the name of this phenomenon?

.....

- b) Where do you can see it?

.....

- c) Explain why it happen?

.....



Integrated Sciences

2025-2026

1st Secondary
First Term

Weekly Assessment
11th Week



إشراف
د. عزيزة رجب خليفة
مستشار مادة العلوم

إشراف عام
د. هالة عبدالسلام خفاجي
رئيس الإدارة العامة للتعليم العام

مكتب مستشار
مادة العلوم
عبدالله مصطفى
سعيد محمد
محمد عبداللطيف

مراجعة
محمد عبداللطيف
محمد عنتر

إعداد
مجدي فتحي
عمرو مالي



Ch (2) Lesson 1:
Components and layers of the atmosphere

Group (A)

First: Choose the correct answer: -

- 1) The layer that absorbs short-wavelength ultraviolet (UV) radiation is layer.
- a) Argon b) Ozone c) Nitrogen d) Oxygen
- 2) The temperature remains relatively constant in the lower stratosphere until around km.
- a) 10 b) 20 c) 50 d) 40
- 3) The ozone layer extends approximately from km up to Km, above the Earth's surface.
- a) 20-50 b) 10-40 c) 20-40 d) 20-60
- 4) The chemical formula of ozone gas is
- a) O_2 b) CO_2 c) O_3 d) O_4

Second: Essay Question

- 5) If the temperature at the bottom of a mountain is $20^{\circ}C$, find the temperature at its top of height 4000 m above its bottom.

.....

.....

.....

Group (B)

First: Choose the correct answer: -

- 1) The temperature at the Mesosphere layer drops to
a) -90°C b) -93°C c) -39°C d) -50°C
- 2) The mesosphere plays a vital role in protecting life on Earth from
a) UV radiation. b) meteors.
c) high temperature. d) Comets.
- 3) The atmosphere layer that extends from 80km to about 550 km above the Earth surface.
a) Ionosphere. b) Mesosphere.
c) Troposphere. d) Stratosphere.
- 4) The ionosphere is also responsible for the phenomenon known as the...
a) aurora. b) greenhouse effect.
c) pressure. c) volcanic eruption.

Second: Essay Question

- 1) Calculate the height of a mountain if the temperature at its base is 30°C , and at the top = -2.5°C .

.....
.....
.....

