

Exercise walk-through

4.4

Earth's Atmosphere

AP Environmental Science

The atmosphere

The **atmosphere** is $\sim 78\%$ N_2 ,
 21% O_2 .

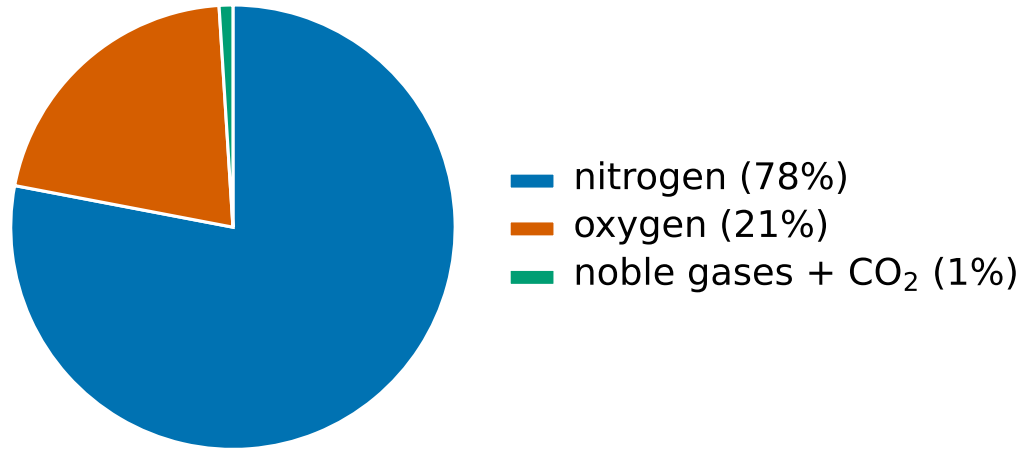
- **troposphere** : weather; cools with height
- **stratosphere** : holds the ozone layer

Ozone absorbs UV, so temperature **rises** again in the stratosphere – the shield for land life.



Climate desert

Clean dry air is about 78% nitrogen



Clean dry air is about 78% nitrogen, 21% oxygen, and 1% other gases

Exercises 2.1-2.3

2.1 What are the two most abundant gases in the atmosphere?

[2]

2.2 In which layer does weather occur?

[1]

2.3 In which layer is the ozone layer found?

[1]

Exercises 2.1-2.3

2.1 What are the two most abundant gases in the atmosphere? [2]

2.1

- Nitrogen (~78%) and oxygen (~21%)
-

2.2 In which layer does weather occur? [1]

2.2

- The troposphere
-

2.3 In which layer is the ozone layer found? [1]

2.3

- The stratosphere

Exercise 3.1

3.1 The ozone layer protects life by absorbing

[1]

☐

A visible light

B ultraviolet (UV) radiation

C carbon dioxide

D oxygen

Exercise 3.1

3.1 The ozone layer protects life by absorbing

[1]

☐

A visible light

B ultraviolet (UV) radiation

C carbon dioxide

D oxygen

3.1 B

- ultraviolet (UV) radiation

Exercise 3.2 (a)

3.2 A weather balloon rises from the ground into the stratosphere.

(a) Name the two layers it passes through.

[2]

Exercise 3.2 (a)

3.2 A weather balloon rises from the ground into the stratosphere.

(a) Name the two layers it passes through.

[2]

(a)

- Troposphere then stratosphere

Exercise 3.2 (b)

3.2 A weather balloon rises from the ground into the stratosphere.

(b) State what important feature it reaches in the stratosphere.

[1]

Exercise 3.2 (b)

3.2 A weather balloon rises from the ground into the stratosphere.

(b) State what important feature it reaches in the stratosphere.

[1]

(b)

- The ozone layer

Exercise 3.3

3.3 Explain why the ozone layer is important for living things.

[2]

Exercise 3.3

3.3 Explain why the ozone layer is important for living things.

[2]

3.3

- It absorbs most of the Sun's harmful UV radiation, which would otherwise damage DNA and cause skin cancer and harm other organisms