

Biological Systems and Processes

Lesson 5 - Breathing

KS3 Biology

Miss Hindle



What happens when we breathe?

	Inhalation	Exhalation
What happens to the diaphragm?		
What do the rib muscles do?		
What happens to the rib cage?		
How does the volume in the thorax change?		
What happens to the pressure inside the lungs?		
Does air rush in or out of the lungs?		



TASK: How do we breathe?

Use your completed grid to construct two paragraphs that describes:

- 1. How we inhale**
- 2. How we exhale**

You should use all of the keywords given below. Underline them in your written work to check you have used them all.

Keywords:

Air, contract, diaphragm, exhale, inhale, pressure, relax, rib cage, rib muscles, thorax, volume



TASK: How do we breathe?

1. When we inhale, the rib muscles and lift the up and out.
2. The diaphragm and moves down.
3. There is an increased in the thorax, so the drops and air flows in.



How does biological sex affect lung volume?

Biological sex	Lung volume (cm ³)				Mean
Boys	6050	5500	5250	6200	
	5700	5850	6100	5950	
Girls	6000	5900	5850	5450	
	4750	6150	4600	5500	

Follow up:

1. Calculate the **mean** for each sex.
2. What is the **range** of readings for each sex?
3. What conclusion can you make from these results?



Exam Style Question

1. The air contains many different gases including nitrogen, oxygen, carbon dioxide and argon.

State the differences between the composition of the air breathed in and the air breathed out.

.....

.....

.....



Exam Style Question

2. Asthma is a respiratory disease and can affect the diameter of the airways.

Describe how inhalers help people with asthma deal with the disease

.....

.....

.....

