



Revision 2025

IGCSE GCSE PE Student Notes

spotlight session

Recommended



**Before the revision
session**

Complete the 2025
National Mock Exam

Essential



**During the revision
session**

Complete the notes

Recommended



**After the revision
session**

Review with your
teacher



The EverLearner

Hot Topic 9: Aerobic and anaerobic respiration

3. Complete the table to show aerobic and anaerobic respiration and their characteristics.

Type of respiration	A	B
Equation	C	Glucose = Lactic acid + Energy
Duration	Long duration	Short duration
Intensity	D	E

A: _____
 B: _____
 C: *Glucose + _____ ----> Carbon dioxide + _____ + _____ release*
 D: _____
 E: _____

Marks: **[5]**

	Duration	Intensity	Examples		
			Basketball	Badminton	Marathon
Aerobic respiration	<i>Longer</i>	<i>Lower</i>	<i>Playing a defensive position in a zone defence when the ball is on the other side of the court.</i>	<i>During a long, slower rally from the back of the court.*</i>	<i>Maintaining a steady pace throughout the full marathon distance.</i>
Anaerobic respiration	<i>Shorter</i>	<i>Higher</i>	<i>Making a high-intensity, fast break down the court.</i>	<i>A quick sprint to retrieve a drop shot.</i>	<i>Making a quick sprint to the finish line in order to beat an opponent into first place.</i>

* (Hannah will talk about this in the live session)



Technically, the question below is from a different section, but it is worth considering based on what we just learned:

4. Describe how a performer repays oxygen debt after anaerobic exercise.

_____, by continuing to breathe at a _____ than at rest and also keeping _____ resting levels.

Marks: [2]

DID YOU KNOW



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Hot Topic 7: Muscle fibre types

How many marks would you award this answer?

26. Identify **one** named feature of fast-twitch muscle fibres **and** explain how it would benefit the following performers:

Marathon runner

100m sprinter

High jumper

Feature of fast twitch fibre: *Low fatigue resistance*

Marathon runner: *Support slow twitch muscle fibres when they are able to.*

100m sprinter: *Doesn't have an impact.*

High jumper: *Doesn't have an impact.*

Marks: **[4]**

Could you rewrite the answers to improve them?

Fibre type	Features	Justify the role within a named sport
Slow	Aerobic High fatigue resistance Low force and speed of contraction	Because...
Fast	Anaerobic Low fatigue resistance High force and speed of contraction	Because...

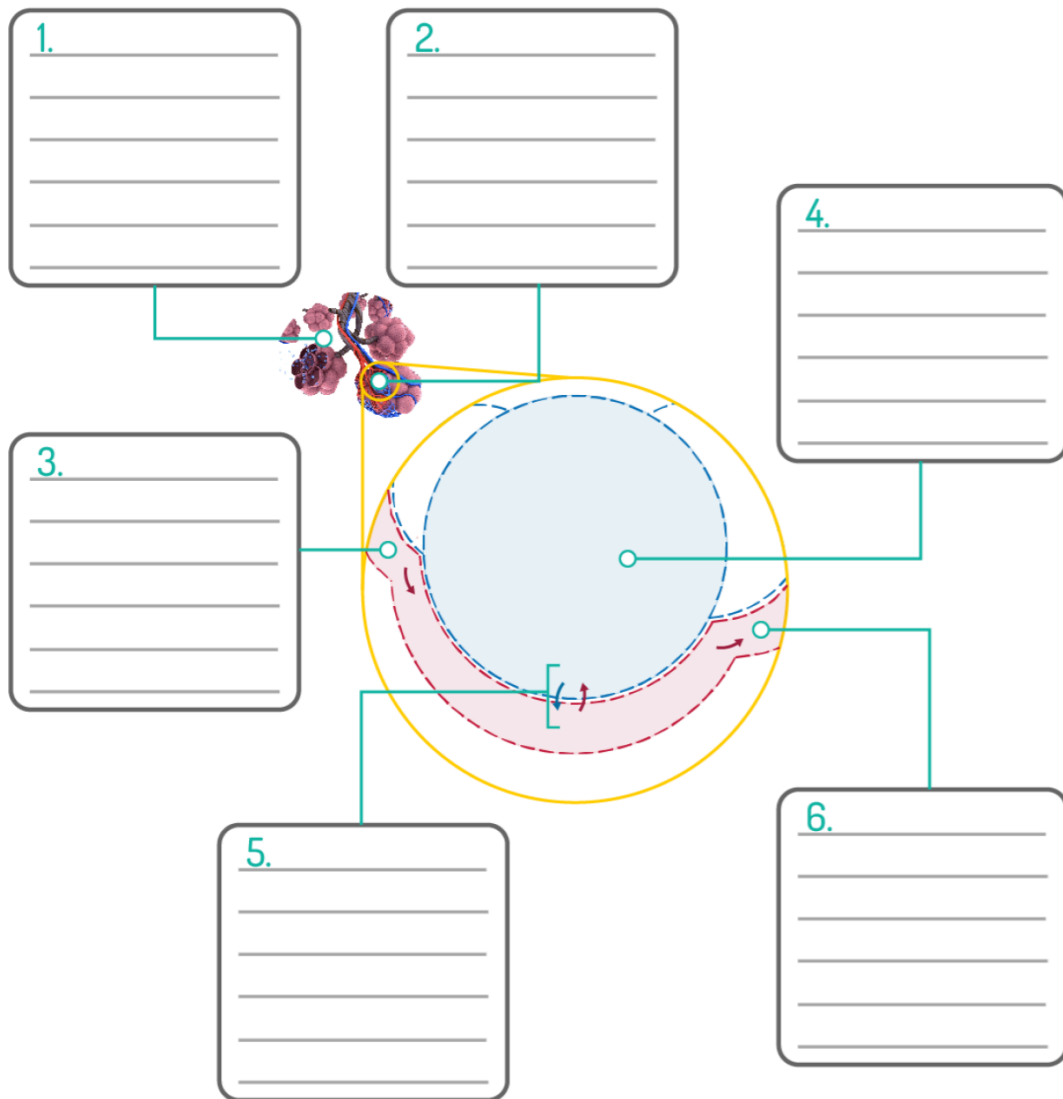
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🔥 Hot Topic 3: Gaseous exchange 🔥



Let's use these ideas to answer the question that follows:

Structure of alveoli	Impact on rate of diffusion
High concentration of oxygen	
Numerous - large surface area	
One-cell thick	
Surrounded by capillaries	
Moist, warm environment	



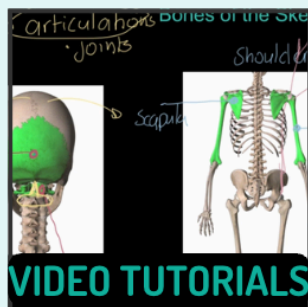
7. Suggest features of the alveoli that benefit a triathlete during the process of gas exchange.

Large _____ of the alveoli cause the diffusion rate to increase. The _____ that surround the alveoli also promote diffusion. They also provide _____ to maintain the diffusion gradient. Finally, they are _____, which means the _____.

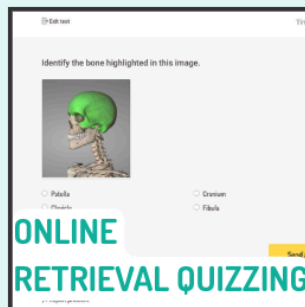
Marks: [4]



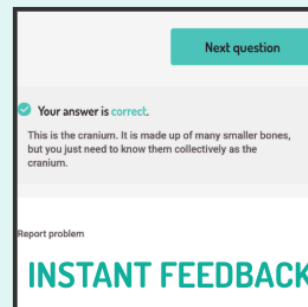
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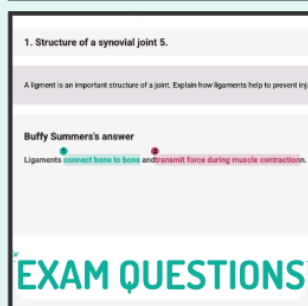
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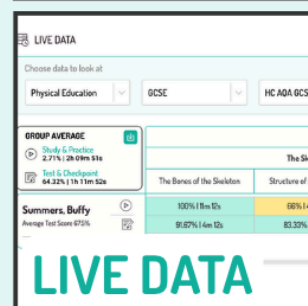
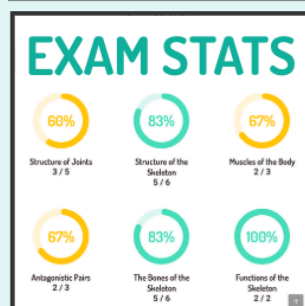
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