

2.1 Analyse how different types of bones help a rugby player to perform.



**Introduction**

Describe the main functions (job) of the skeleton.  
Describe the different types of bones in the body.

**Point 1**

Name a type of bone and give an example

Where is this bone found and what is its main function?

Explain how this bone is used in rugby and give a specific example

**Point 2**

Name another type of bone and give an example

Where is this bone found and what is its main function?

Explain how this bone is used in rugby and give a specific example

**Point 3**

Name another type of bone and give an example

Where is this bone found and what its main function?

Explain how this bone is used in rugby and give a specific example

**Conclusion**

Summarise how different types of bones have different functions and their importance to rugby

How can the size and shape of a bones be linked to different sports?

2.2. Describe how the quadriceps and hamstrings work antagonistically when performing a squat?



**Introduction**

State where the muscles are located

What is the difference between the origin and the insertion?

Describe what concentric and eccentric contraction mean.

Describe what antagonistic means.

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**Point 1**

Describe the downward phase of the squat

Which muscle is contracting concentrically/eccentrically to allow this to happen?

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**Point 2**

Describe the upward phase of the squat

Which muscle is contracting concentrically/eccentrically to allow this to happen?

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**Point 3**

Describe the role of synergists and fixator muscles when performing a squat

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**Conclusion**

Can you give other examples of antagonistic muscle pairs?

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2.4. Explain how the mechanisms of breathing sustains performance for a marathon runner?



**Introduction**

Explain what is meant by the term mechanisms of breathing

What is pulmonary ventilation?

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**Point 1**

Describe what happens when we inspire (breath in)

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**Point 2**

Describe what happens when we expire (breath out)

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**Point 3**

Explain how the mechanisms of breathing are needed during a marathon race

What happens to the demand for oxygen?

Explain why inspiration and expiration needs to increase?

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**Conclusion**

Summarise the importance of the mechanisms of breathing when running a marathon

What happens when intensity increases

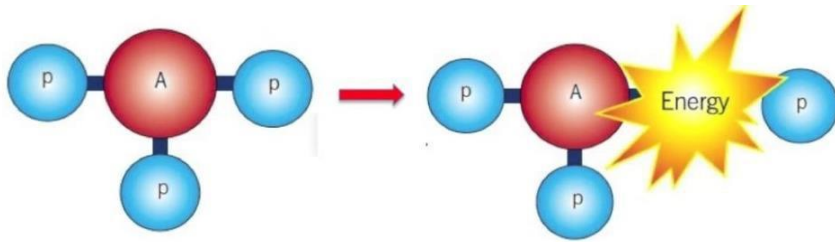
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2.5. When we take part in sport or physical activity, we get tired. How long we take to recover will depend on the intensity of exercise. Explain the role of ATP in sport and physical activity and how it is resynthesized?



**Introduction**

Explain that role of ATP in exercise and sport

State where is energy is obtained (diet)

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**Point 1**

Explain the structure of ATP?

Explain how energy is released

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**Point 2**

Explain the structure of ADP?

Explain how ATP is resynthesized

Can you give a sporting example

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**Conclusion**

Summarise the importance of ATP in sport and exercise

Explain how ATP works like a rechargeable battery

How long will ATP last if it is not resynthesized?

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