

# 4.5

## Arousal



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### Learning Objectives



Define the term 'arousal.'



Describe the 'inverted-U theory' in relation to optimal performance.



Link skills to optimal levels of arousal and explain ways arousal can be managed



Brilliant work Sarah,  
keep it up!

4.5 Arousal	
Start of the lesson	End of the lesson
1. Define the term 'arousal.'	
Preparing for something mentally and physically	Physical or mental state of alertness/readiness which varies from sleeping to excitement ✓
2. Draw a diagram showing the 'inverted-U' theory.	
no current knowledge	
3. Do gross movement skills generally require low or high levels of arousal? Why?	
no current knowledge	High because takes more power & energy ✓
4. State three stress management techniques that can be used to manage arousal.	
no current knowledge	<ul style="list-style-type: none"> <li>- positive self-talk</li> <li>- mental preparation</li> <li>- deep breathing</li> </ul>
<b>Start of the lesson:</b>  <div style="text-align: center;"><b>DOWNLOAD BAR</b></div>	<b>End of the lesson (Actual %):</b>  <div style="text-align: center;"><b>DOWNLOAD BAR</b></div>

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plus



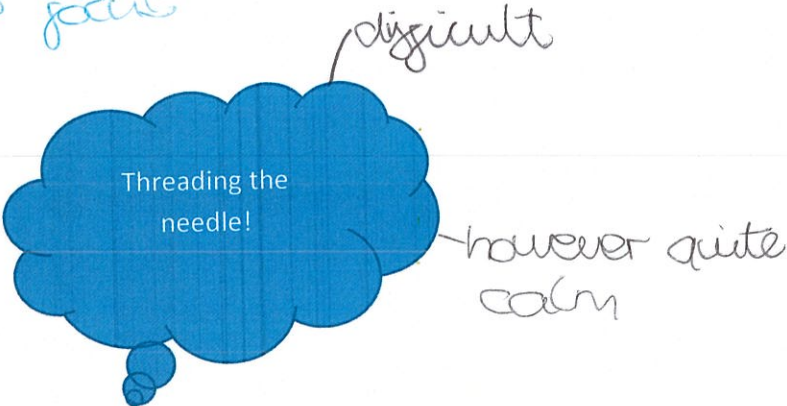
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Working in groups of 4, you are going to write and perform a song to the class. The song can be on any topic you wish. You have five minutes to complete the task. Thread the needle.

Very nervous, struggled to concentrate, felt very relieved later on, struggled to thread the needle, heart rate and body temperature increases.

How could these feelings affect performance?  
could decrease performance because if your stressed it will be harder to focus and create a



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## Arousal

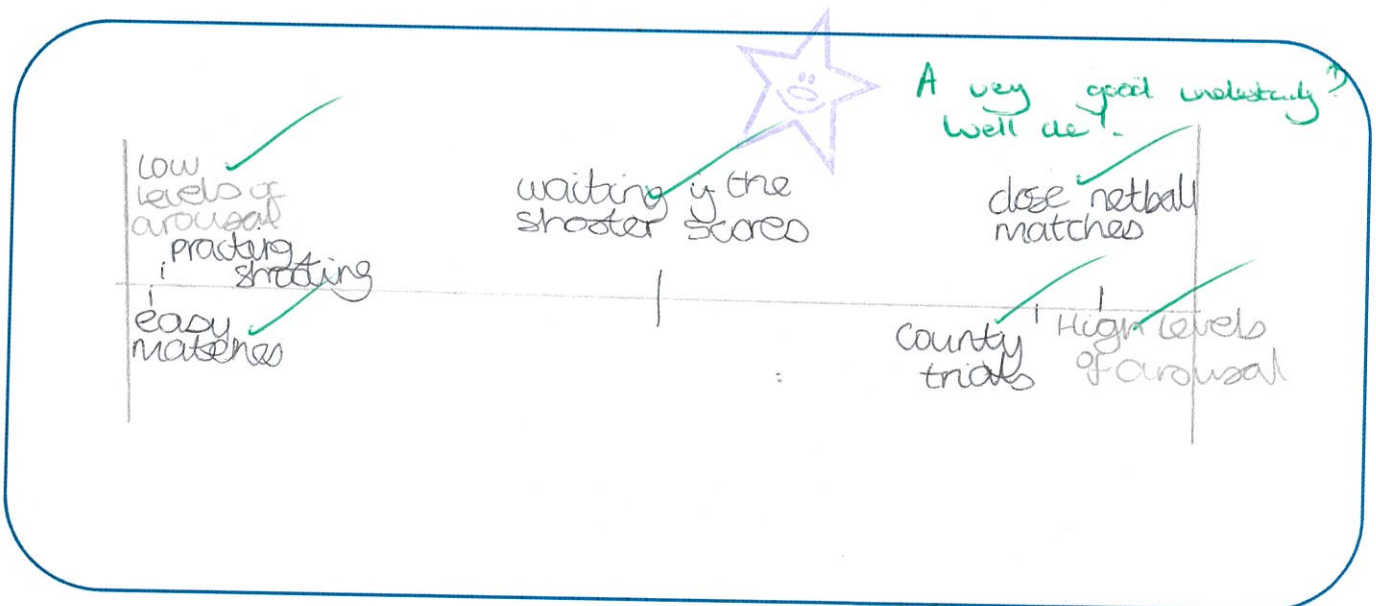


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plus

- ✓ Arousal is both **physical** and **mental**.
- ✓ **Physiological** and **psychological**.
- ✓ State of alertness varying from **deep sleep** to **intense excitement**.
- ✓ In deep sleep we have **low levels of arousal** and in intense excitement we experience **high levels of arousal**.

**Task 1 AO1:** Draw a continuum below to represent the information above.



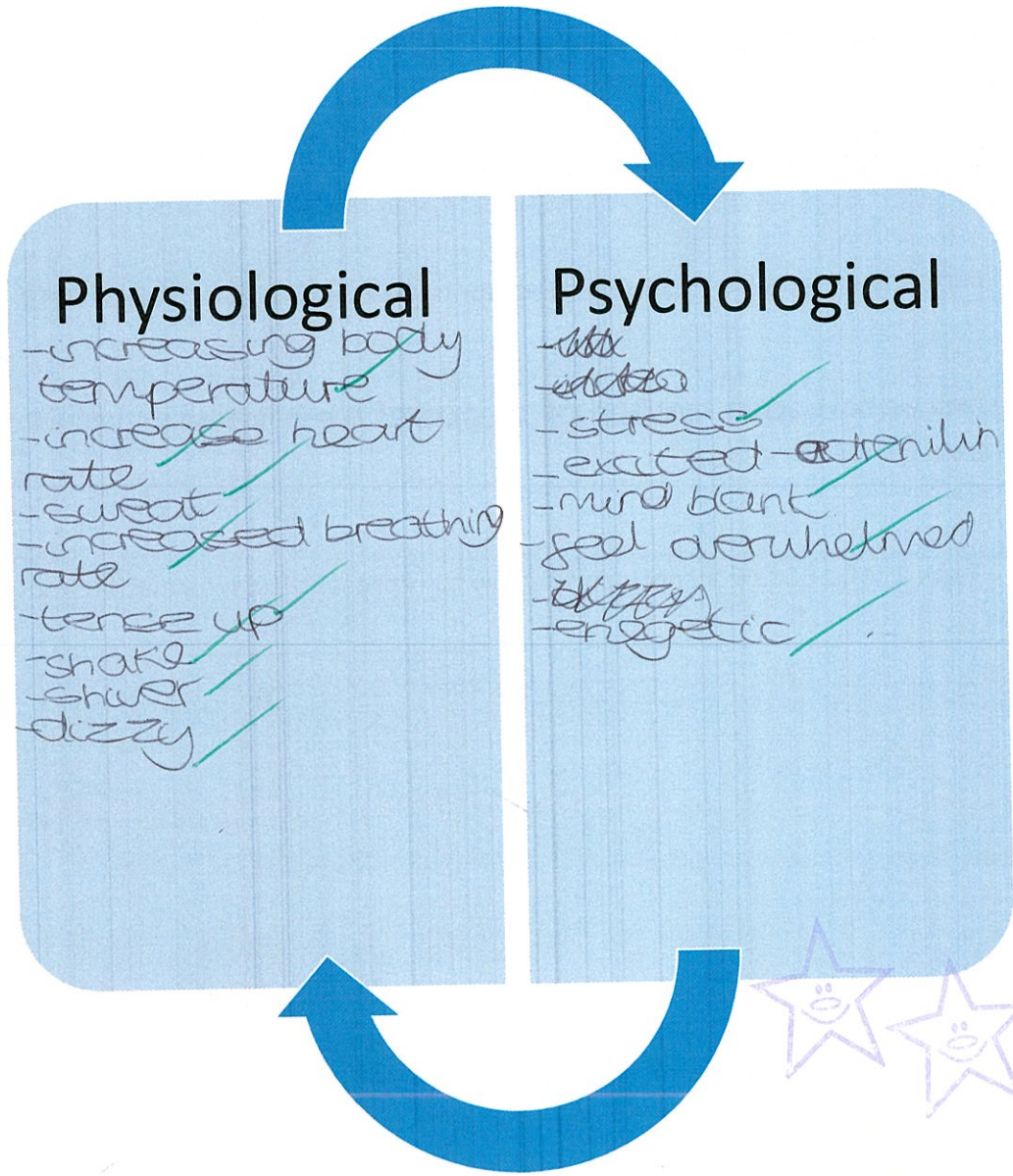
**Task 2 AO2 :** Explain how you felt when you were completing your starter activity. Try to divide your feelings up into physiological and psychological feelings. When sports performers play, they will also experience arousal.

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**Task 3 AO1:** Try to write a definition of arousal in the space below using the information from the previous pages.

Arousal is: the physical and mental preparation and  
cooling before a performance or sporting activity

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plus



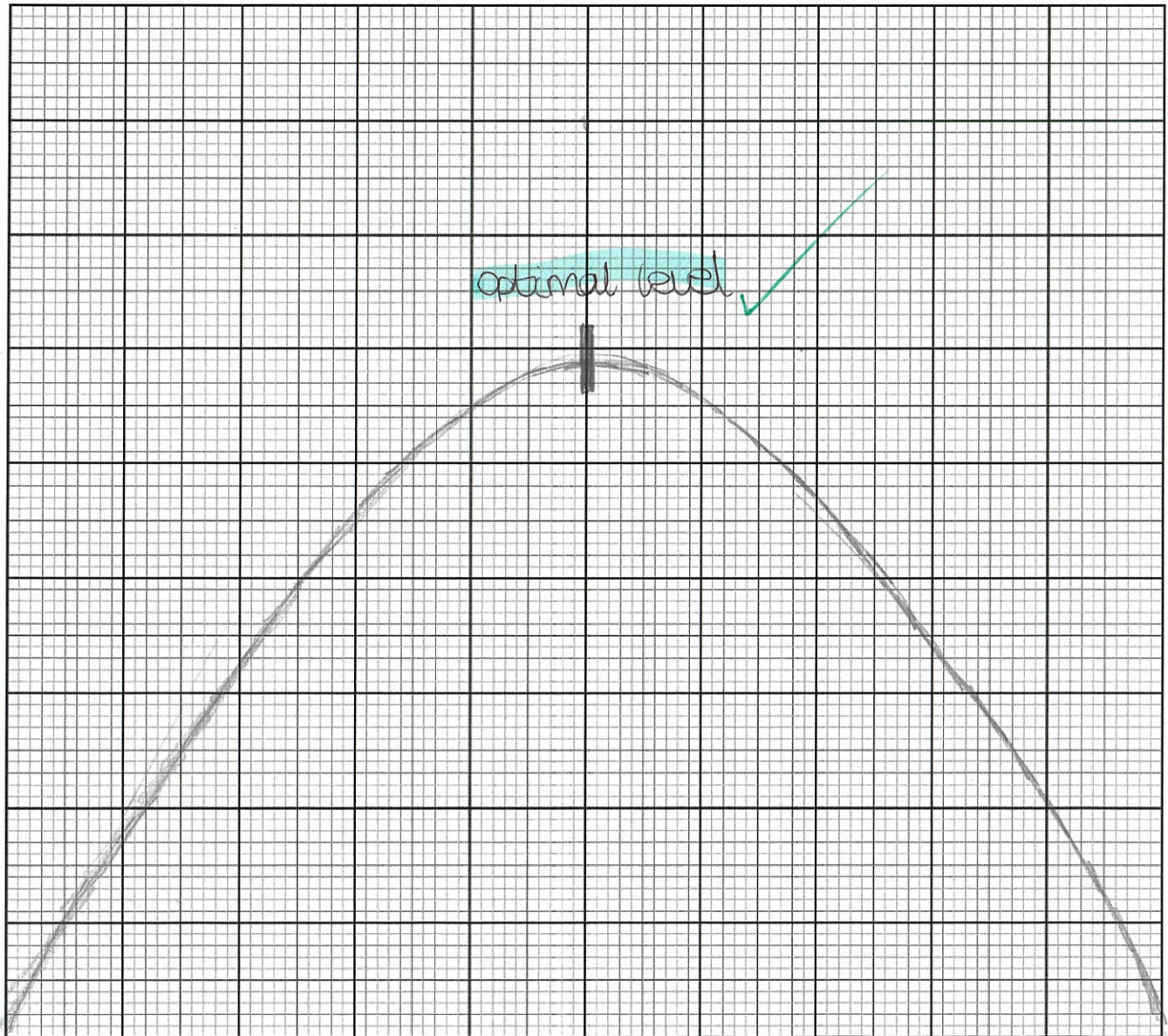
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### The inverted U theory of arousal

The 'inverted-U' theory explains the relationship between arousal and performance.

As part of your course, you may be required to draw an inverted U graph showing the correct level of arousal on the x-axis and the performance in the y-axis.

**Task 4: AO1 – AO3:** In the space below, draw a graph to illustrate the 'inverted-U' theory. Add a commentary around the outside of the graph to explain the theory, remembering to mention how the optimal level of arousal varies according to the skill being performed.



increasing performance

increasing arousal

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## Arousal

plus

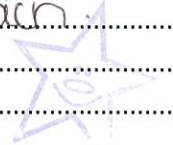


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**Task 5: A03:** Using the graph you have produced on the previous page explain inverted u theory.

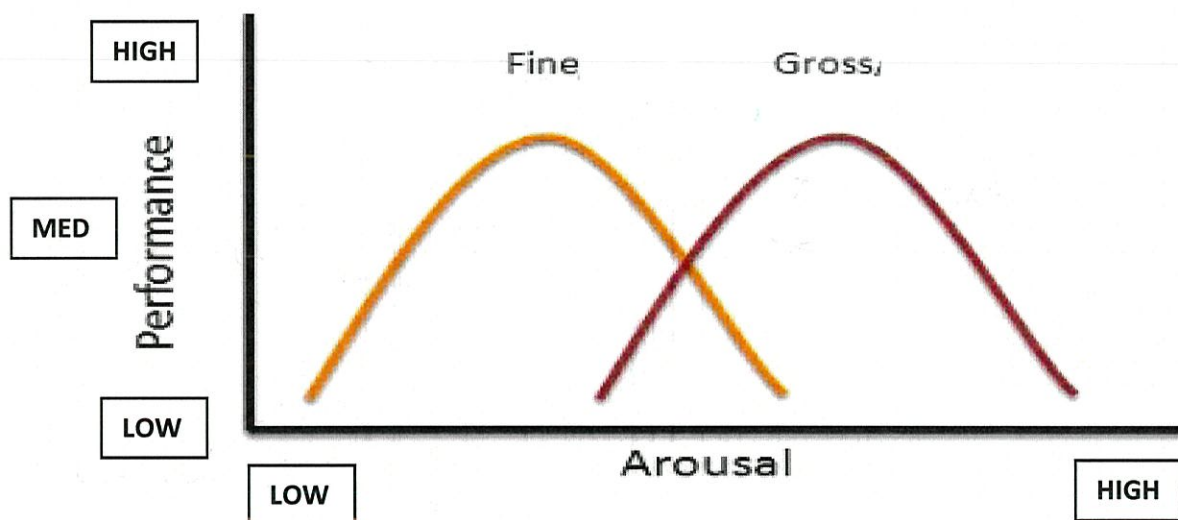
When you are under aroused your performance level is lower. However, when you are at the optimal level that's when your performance level is the highest but when you are over aroused the performance level starts to decrease again.

Well done!



### Differing optimal levels of arousal for different skills.

Optimum levels of arousal varies for different sporting skills. There is an **optimal level of arousal**. Interpret the graph below and summarise your understanding.



Comment on the following: Fine skill, gross skills, level of performance, level of arousal, conclusion

In fine movements you have low amounts of arousal because you need strong levels of concentration. For example when you putt in golf you don't need much power but lots of accuracy. For gross movements you need high levels because they take lots of energy. For example a rugby tackle needs lots of power.

Excellent work Well done Sara



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**Task 6 A02:** Using your knowledge of inverted U theory, name the skill, identify and explain whether athletes performing them would require high or low levels of arousal. You must justify your reasons.



low levels because you need strong levels of concentration.  
Skill is archery



~~high levels~~ Sprinting needs high levels because it needs lots of power and energy



Weight lifting needs high because lots of momentum and power to lift heavy things.



Rugby tackle needs lots of arousal because if not you'll easily get injured as you have low strength.



Dart throwing because it takes extreme amounts of focus and concentration and for that you need to be very calm.



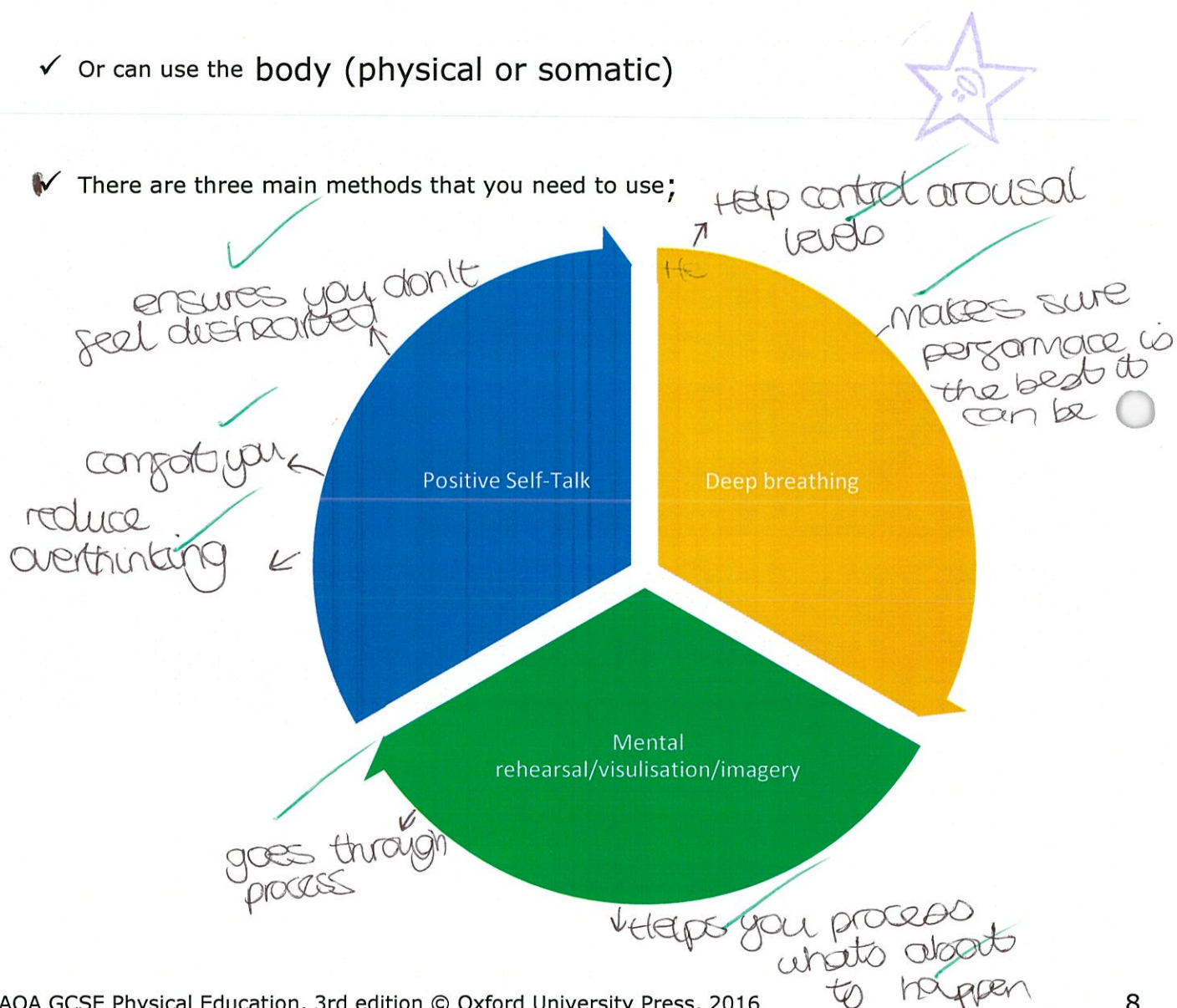
Pool takes lots of concentration so doesn't need much arousal.



## Controlling Arousal Levels

- ✓ Performers need to control arousal levels to ensure performance is the best it can be.
- ✓ Incorrect levels may result in mistakes.
- ✓ This can be as a result of under or over arousal.
- ✓ Methods to control arousal can be in the mind (mental/cognitive).
- ✓ Or can use the body (physical or somatic)

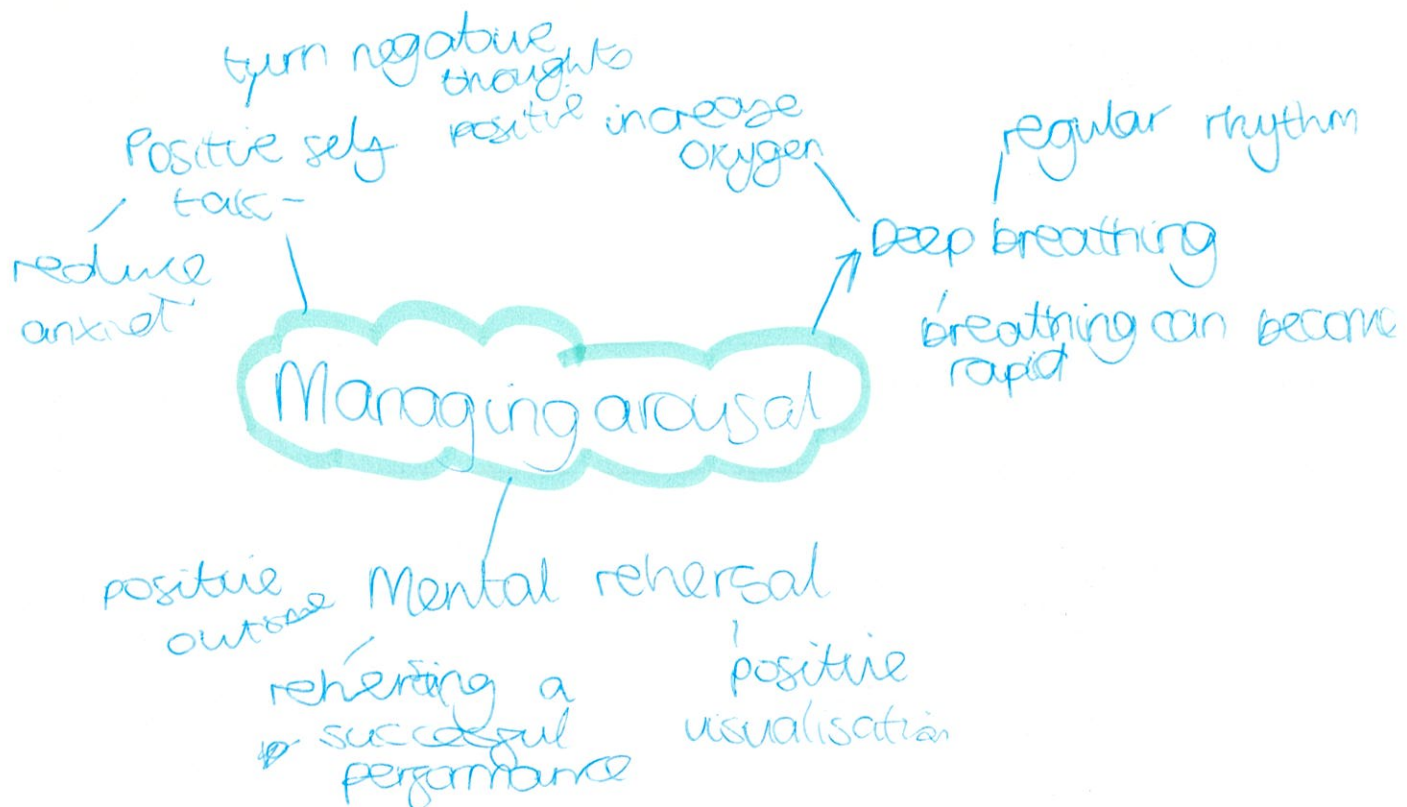
✓ There are three main methods that you need to use;





**Task 7 AO1/O2/O3:** Using the information from the handout, highlight key words that you feel are important to each method of controlling arousal. Once you have completed this, create a mind map to capture everything you know about managing arousal using the following stress management techniques. Include sporting examples.

- Deep breathing
- Mental rehearsal/Visualisation/imagery
- Positive self-talk





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### Extension Activity

1. Explain how arousal affects performance according to the Inverted U theory

(3 marks)

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2. Explain how levels of arousal need to differ for different skills that are used in a game of your choice.

(2 marks)

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3. Name and describe a management technique that could be used to control arousal.

(2 marks)

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4. If a sports performer was suffering from over arousal, name and explain a management technique that could be used to control their level of arousal.

(2 marks)

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