

Unit 1 Extended response questions worksheet 3 - Exercise 1

NCFE Level 1/2 Technical Award in Health and Fitness: Unit 1			
First Name:		Surname:	

Question
<p>Using your knowledge of muscle fibre types and specificity of training, evaluate why an individual who completes a short distance sprint in a quick time may not be as effective at long distance running. [9 marks]</p>
Tips:
<ol style="list-style-type: none">1. First look at the number of marks that has been allocated. In this question there are '9 marks' available.2. Secondly look at the key words in the question which will give you some indication of how you should respond to the question. In this question, the key word is as follows... <p>Indicative content: The first part of the questions provides you with the indicative content of the answer required:</p> <p>Using your knowledge of 'muscle fibre types' and 'specificity of training'...</p> <p>Key word: ...'evaluate'...</p> <p>Question: ...why an individual who completes a short distance sprint in a quick time may not be as effective at long distance running.</p> <p>There are quite a few layers to this question (hence the 9 marks allocation) that you need to review and break down to ensure you fully understand how to respond to the question.</p> <p>Firstly look at the indicative content (muscle fibre types & specificity of training), which indicates the subject topic you'll be covering in the question. Secondly review any key words that will help you understand the level of response, such as describe, analyse, justify, for example, however in this question it is 'evaluate'.</p> <p>Once you've established the indicative content and level of response required (evaluating), you can then focus on what the question is asking you to do!</p>

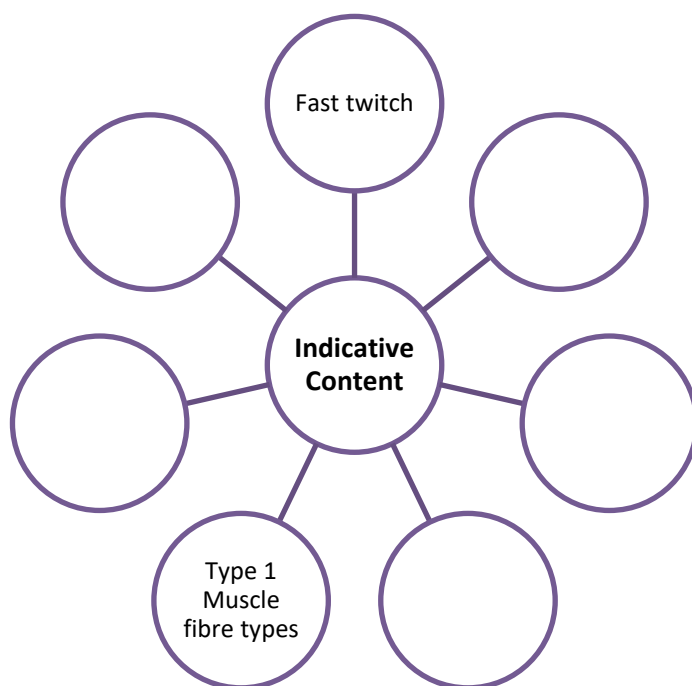
3. As a general rule, for any questions with **9 marks** allocated, you should look to provide the following in your answer:
 - a. Try to demonstrate a **wide** range of knowledge and understanding
 - b. Ensure your answer is **accurate** and **detailed**
 - c. Subject specific terminology is used **consistently throughout**
 - d. Make sure your response is **relevant** and in **context**
 - e. **Analysis** and **Evaluation** is present and **very effective**
 - f. Your **conclusions** are fully **supported** by **judgements**

4. Finally, to help you demonstrate a '**wide**' range of knowledge and understanding, you should consider what '**indicative content**' the question is looking for. This is the basic knowledge areas the question is asking you to focus on.

The following activities will help you to break this question down so you understand how to respond to questions of this nature.

Activity 1

To fully understand the **indicative content** to support a response to this question, identify as much indicative content as possible that is related to this question? What things should you consider for **'muscle fibre types'** and **'specificity of training'** in relation to a **'short distance sprint'** and **'long distance running'**?



This will help you to think about the range of content you should consider in your answer.

Activity 2

The **indicative content** covers 'muscle fibre types'. Using the following table can you identify the characteristics of muscle fibre types for each activity?

Muscle fibre type characteristics	
Short distance sprint	Long distance running
<p>Which muscle fibre type is best suited for this activity? (slow or fast & type 1 or 2)</p> <p>What are the characteristics of this muscle fibre type?</p>	<p>Which muscle fibre type is best suited for this activity? (slow or fast & type 1 or 2)</p> <p>What are the characteristics of this muscle fibre type?</p>
<p>Fill in the blanks below...</p> <p>_____ twitch muscle fibres are quick to _____ and most suitable for short duration exercise.</p> <p>An individual who is good at sprinting will have a high number of _____ twitch muscle fibres.</p> <p>An individual who is good at sprinting will probably have a lower number of _____ twitch muscle fibres.</p> <p>Reasons for this are...</p>	<p>Fill in the blanks below...</p> <p>_____ twitch muscle fibres are slow to _____ and most suitable for long duration exercise.</p> <p>_____ twitch muscle fibres are not suitable for long duration activities, such as long distance running, as they fatigue quickly.</p> <p>To be effective at long distance running an individual would need to have more _____ twitch muscle fibres.</p> <p>Reasons for this are...</p>

Activity 3

For '**specificity of training**' indicative content, can you explain the '**specificity** principle of training' below?

Activity 4

To support '**specificity of training**', can you explain the following:

How an individual could train for sprinting?

If an individual who was good at sprinting wanted to get better at long distance running, how would they do this?

Activity 5

For this activity, try to summarise all your points covered as part of your final answer to the question. Try to structure your answer using the following headings.

Type 1 slow twitch muscles can be defined as...

Type 1 slow twitch muscles characteristics are...

Type 2 fast twitch muscles can be defined as...

Type 2 fast twitch muscles characteristics are...

Specificity of training is important because...

A short distance sprint will use...

An individual who is good at sprinting will have...

Long distance running will use...

An individual who is good at long distance running will have...

Fast twitch muscle fibres are not suitable for long duration activities because....

Slow twitch muscle fibres are suitable for long duration activities because....

An individual good at sprinting will train...

Sprinters have a lower number of....

Long distance runners will have more...

If an individual who was good at sprinting wanted to get better at long distance running, they would need to...

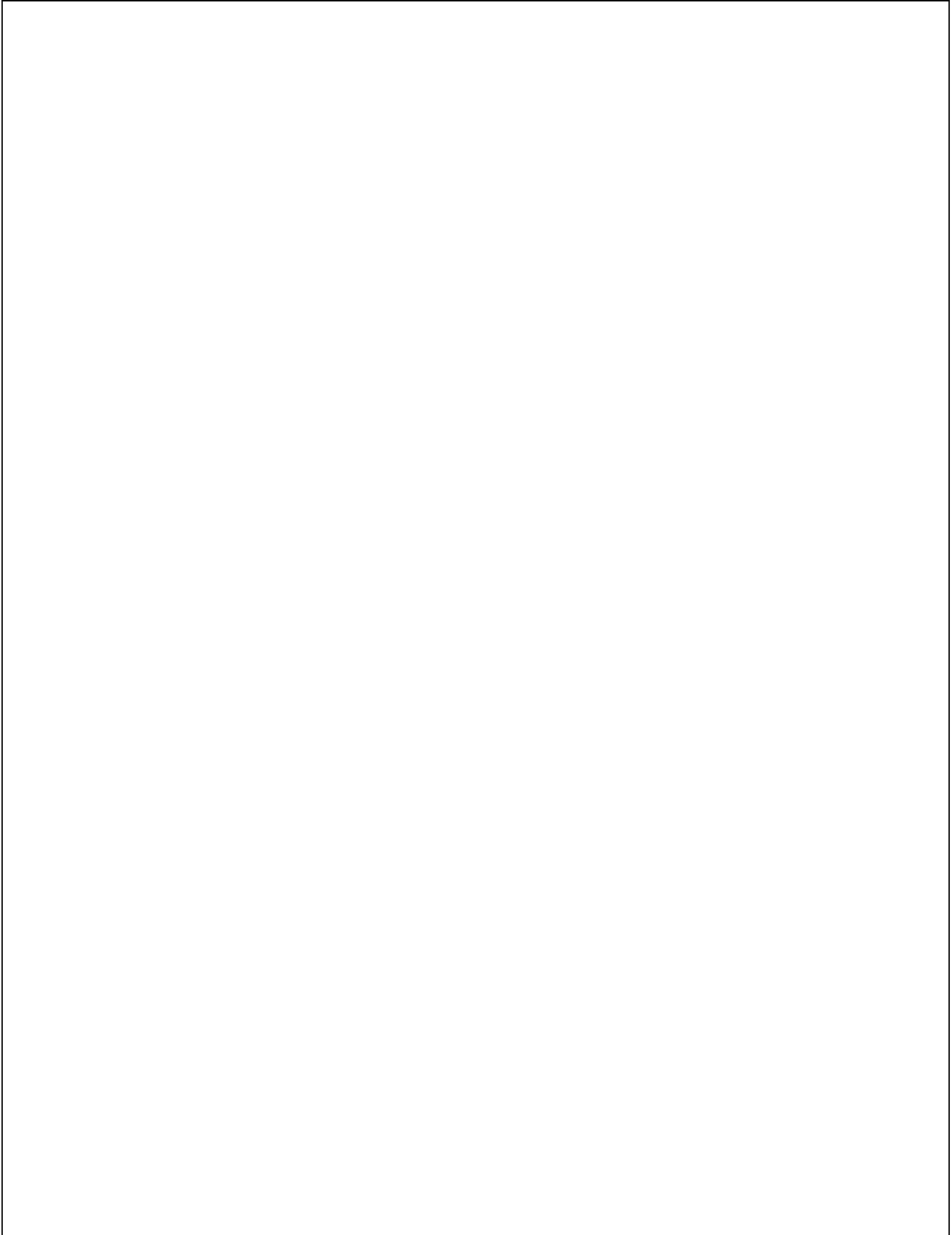
Conclusions (ensure your conclusions are supported by judgements)

Activity 6

For the final activity and using the information and structure from activity 5, try to write the full answer in response to the question. Remember, your answer must...

- demonstrate a **wide** range of knowledge and understanding
- be **accurate** and **detailed**
- include subject specific terminology that is used **consistently throughout**
- be **relevant** and in **context**
- present **analysis** and **evaluation effectively**
- include **conclusions** that are fully **supported** by **judgements**

Final response to question:



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