

<b>Task Number</b>	1	<b>Task Name</b>	Core 2 – Case Study
<b>Course</b>	Preliminary Course	<b>Faculty</b>	PDHPE
<b>Teacher</b>	Mr Eakin	<b>Head Teacher</b>	Mr Eakin
<b>Issue date</b>	Term 1, Week 5, 2024	<b>Due date</b>	<b>Term 1, Week 8 Friday 22nd March 2024 to PDHPE staffroom or in google classroom by 9:00am</b>
<b>Focus (Topic)</b>	Core 2 – Body in Motion	<b>Task Weighting</b>	35%

### Outcomes

P7 explains how body systems influence the way the body moves  
P8 describes the components of physical fitness and explains how they are monitored  
P10 plans for participation in physical activity to satisfy a range of individual needs  
P11 assesses and monitors physical fitness levels and physical activity patterns  
P16 uses a range of sources to draw conclusions about health and physical activity concepts  
P17 analyses factors influencing movement and patterns of participation

### What is the relationship between physical fitness, training and movement efficiency?

Students learn about:	Students learn to:
<ul style="list-style-type: none"> <li>health-related components of physical fitness <ul style="list-style-type: none"> <li>cardiorespiratory endurance</li> <li>muscular strength</li> <li>muscular endurance</li> <li>flexibility</li> <li>body composition</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>analyse the relationship between physical fitness and movement efficiency. Students should consider the question 'to what degree is fitness a predictor of performance?'</li> </ul>
<ul style="list-style-type: none"> <li>skill-related components of physical fitness <ul style="list-style-type: none"> <li>power</li> <li>speed</li> <li>agility</li> <li>coordination</li> <li>balance</li> <li>reaction time</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>measure and analyse a range of both health-related and skill-related components of physical fitness</li> </ul>
<ul style="list-style-type: none"> <li>aerobic and anaerobic training <ul style="list-style-type: none"> <li>FITT principle</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>think critically about the purpose and benefits of testing physical fitness</li> <li>design an aerobic training session based on the FITT principle</li> </ul>
<ul style="list-style-type: none"> <li>immediate physiological responses to training <ul style="list-style-type: none"> <li>heart rate</li> <li>ventilation rate</li> <li>stroke volume</li> <li>cardiac output</li> <li>lactate levels</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>compare the relative importance of aerobic and anaerobic training for different sports, eg gymnastics versus soccer</li> </ul>

### Task description:

Amber is a Year 10 student at a local high school. She has been in her school's touch football side since Year 8. She is not as active however, as she was in Year 9. She is now spending more time working at a local surf shop and with her boyfriend. Over the last month she has completed a few short sprint training sessions and had 1 long run. This is the only form of physical activity she has undertaken in the past 9 months, other than PE classes, sport and walking to and from school. Recently she missed out on selection in this year's school touch team. She is disappointed because her closest friends were successful. She believes she missed out due to her beep test results during the trials in which she scored 6.3.

Answer the following exam style questions based on the above scenario:

1. **Describe** THREE of the most important components of fitness for Amber's sport of choice, including a test which can be used to measure each component. **(5 marks)**
2. **Justify** the use of health related fitness tests, such as the beep test in team selection trials. **(5 marks)**
3. **Explain** how the FITT principle can be used by Amber's personal trainer to plan an aerobic training program for her to improve future cardiovascular endurance test results. **(8 marks)**
4. **Analyse** the immediate physiological responses to training that Amber will experience during her aerobic training sessions. **(8 marks)**
5. **Critically evaluate** the question: To what degree is fitness a predictor of performance? **(10 marks)**

### Resources/References Suggestions

Class notes

Text book Application and Inquiry

### Starting Ideas

Research all your material first

- Ensure that you **know what the verb is asking you to do**
- Always refer to the **syllabus dot points and dash points** to ensure that you are answering the question in the light of syllabus requirements
- Remember to use **linking words**
- You should be aiming to use approximately/minimum **1½ pages for a 10 mark question, 1 page for an 8 mark question and ½ a page for a 5 mark question**
- **Always** refer to the rubric

### Assessment Criteria / Rubric

Students will be assessed according to their ability to:

- Accurately identify relevant syllabus dot points relating to the question
- Construct a response that demonstrates an analysis of the question
- Use relevant syllabus terminology in their response
- Use relevant examples to highlight their response
- Present their response in a clear and logical manner

**Marking Criteria****QUESTION 1:**

**Describe** THREE of the most important components of fitness for Amber's sport of choice, including a test which can be used to measure each component.

Criteria	Marks
<ul style="list-style-type: none"> <li>● Provides extensive characteristics and features of three of the most important components of fitness for touch and a test to measure each</li> <li>● Uses relevant examples to illustrate answer</li> <li>● Presents ideas in a clear and logical way</li> </ul>	5
<ul style="list-style-type: none"> <li>● Provides characteristics and features of three components of fitness for touch and a test to measure each</li> <li>● Uses examples to illustrate answer</li> <li>● Presents ideas in a clear and logical way</li> </ul>	4
<ul style="list-style-type: none"> <li>● Outlines three of the most important components of fitness for touch and a test to measure each OR</li> <li>● Provides characteristics and features of three components of fitness and a test to measure each OR</li> <li>● Provides characteristics and features of two components of fitness for touch and a test to measure each</li> </ul>	3
<ul style="list-style-type: none"> <li>● Identifies basic aspects of fitness components and tests OR</li> <li>● Identifies basic relevant information about components of fitness and tests</li> </ul>	2
<ul style="list-style-type: none"> <li>● Identifies limited fitness components OR fitness test information</li> </ul>	0-1

**Describe:** Provide characteristics and features  
**Outline:** Sketch in general terms; indicate the main features of  
**Identify:** Recognises and names

**QUESTION 2:**

**Justify** the use of health related fitness tests, such as the beep test in team selection trials

Criteria	Marks
<ul style="list-style-type: none"> <li>● Argues for and/or against the use of health-related tests to select teams at trials</li> <li>● Supports the answer with relevant examples</li> <li>● Presents ideas in a clear and logical way</li> </ul>	5
<ul style="list-style-type: none"> <li>● Discusses health-related tests and refers to their use in selecting teams at trials</li> <li>● Uses relevant examples to illustrate answer</li> <li>● Presents ideas in a clear and logical way</li> </ul>	4
<ul style="list-style-type: none"> <li>● Lists health-related tests and refers to their use in selecting athletes</li> <li>● Uses examples to illustrate answer</li> </ul>	3
<ul style="list-style-type: none"> <li>● Lists characteristics of certain sports and refers to appropriate health-related tests OR</li> <li>● Discusses health-related tests</li> </ul>	2
<ul style="list-style-type: none"> <li>● Lists limited information about fitness tests OR selection trials</li> </ul>	0-1

**Justify:** Support an argument or conclusion  
**Discuss:** Identify issues and provide points for and / or against  
**Describe:** Provide characteristics and features  
**Outline:** Sketch in general terms; indicate the main features of

**QUESTION 3:**

**Explain** how the FITT principle can be used by Amber's personal trainer to plan her an aerobic training program and improve future cardiovascular endurance test results.

Criteria	Marks
<ul style="list-style-type: none"> <li>● Identifies, through cause and effect, how the FITT principle can be used to improve cardiovascular endurance</li> <li>● Uses relevant examples to illustrate answer</li> <li>● Presents ideas in a clear and logical way</li> </ul>	8
<ul style="list-style-type: none"> <li>● Describes how the FITT principle can be used in aerobic training programs to improve cardiovascular endurance</li> <li>● Uses relevant examples to illustrate answer</li> </ul>	6 - 7
<ul style="list-style-type: none"> <li>● Describes the FITT principle, making some links to an aerobic training program</li> <li>● Uses relevant examples to illustrate answer</li> </ul>	4 - 5
<ul style="list-style-type: none"> <li>● Outlines the FITT principle</li> </ul> OR <ul style="list-style-type: none"> <li>● Identifies some relevant information about the FITT principle and training</li> </ul>	2 - 3
<ul style="list-style-type: none"> <li>● Identifies limited information about the FITT principle OR aerobic training</li> </ul>	0 - 1

**Explain:** Relate cause and effect; make the relationships between things evident; provide why and / or how

**Identify:** Recognise and name

**Describe:** Provide characteristics and features

**Outline:** Sketch in general terms; indicate the main features of

**QUESTION 4:**

**Analyse** the immediate physiological responses to training that Amber will experience during her aerobic training sessions

Criteria	Marks
<ul style="list-style-type: none"> <li>● Demonstrates an extensive understanding of immediate physiological responses to training</li> <li>● Analyses an extensive range of physiological responses resulting from participation in an aerobic training session</li> <li>● Presents ideas in a clear and logical way</li> <li>● Uses relevant examples to illustrate answer</li> </ul>	8
<ul style="list-style-type: none"> <li>● Demonstrates a thorough understanding of immediate physiological responses to training</li> <li>● Discusses a range of physiological responses resulting from participation in an aerobic training session</li> </ul>	6 - 7
<ul style="list-style-type: none"> <li>● Identifies and explains the immediate physiological responses that occur as a result of aerobic training</li> </ul>	4 - 5
<ul style="list-style-type: none"> <li>● Basic description of responses</li> </ul>	2 - 3
<ul style="list-style-type: none"> <li>● Lists immediate physiological responses OR</li> <li>● Provides a limited description of some changes that occur during an aerobic training session</li> </ul>	0 - 1

**Analyse:** Identify components and the relationship between them; draw out and relate implications

**Discuss:** Identify issues and provide points for and/ or against

**Identify:** Recognise and name

**QUESTION 5:**

**Critically evaluate** the question: To what degree is fitness a predictor of performance? (10 marks)

Criteria	Marks
Critically evaluate factors that influence an individual's health and skill related fitness and examines the degree to which fitness is a predictor of performance. Uses a wide range of sources to improve an individual's health and skill related fitness.	9 - 10
Evaluate factors that influence an individual's health and skill related fitness and examines the degree to which fitness is a predictor of performance. Uses a range of sources to improve an individual's health and skill related fitness.	7 - 8
Identifies factors that influence an individual's health and skill related fitness and discusses the degree to which fitness is a predictor of performance. Uses some sources to improve an individual's health and skill related fitness.	5 - 6
Outlines factors that influence an individual's health and skill related fitness and identifies that fitness is a predictor of performance. Provides a program to improve an individual's health and skill related fitness.	3 - 4
Discusses health and skill related fitness. Provides a program to improve an individual's health and skill related fitness.	1 - 2

**Discuss:** Identify issues and provide points for and/ or against

**Outline:** Sketch in general terms; indicate the main features of

**Analyse:** Identify components and the relationship between them; draw out and relate implications

**Evaluate:** Make an overall judgement on the overall effectiveness of their use to achieve the purpose/intention. Explain the extent to which all areas play a role in relation to each other.

**Feedback:**

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