

Energy Summer Work

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OCR ExamBuilder process constraints mean you may see slight differences between this paper and the original.

Candidates answer on the Question Paper.

OCR supplied materials:

Additional resources may be supplied with this paper.

Other materials required:

- Pencil
- Ruler (cm/mm)

Duration: 35 mins

Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Where space is provided below the question, please write your answer there.
- You may use additional paper, or a specific Answer sheet if one is provided, but you must clearly show your candidate number, centre number and question number(s).

INFORMATION FOR CANDIDATES

- The quality of written communication is assessed in questions marked with a pencil or an asterisk.
- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **29**.

Answer **all** the questions.

1. During a 100 metre sprint an athlete resynthesises ATP. Identify the fuel used to resynthesise ATP and the site of the reaction.

[2]

2. Elite swimmers can complete the 100 metre freestyle race in under 1 minute.

(i) Describe the predominant energy system used by elite swimmers during the 100 metre freestyle race.

[5]

(ii) Explain why the use of this energy system cannot be sustained for more than several minutes.

[2]

3. Explain the principle of a coupled reaction using the ATP/PC energy system as your example.

[4]

4. Explain how the majority of ATP would be resynthesised by a marathon runner.

[5]

5. Two netballers were arguing about the positioning of netball on the energy continuum. Discuss the suggestion from their teacher that there are many factors to consider and that they may both be correct.

[5]

6. Using examples from a team sport, describe how players resynthesise ATP during a game using the ATP/PC system and lactic acid system.

[6]

END OF QUESTION PAPER