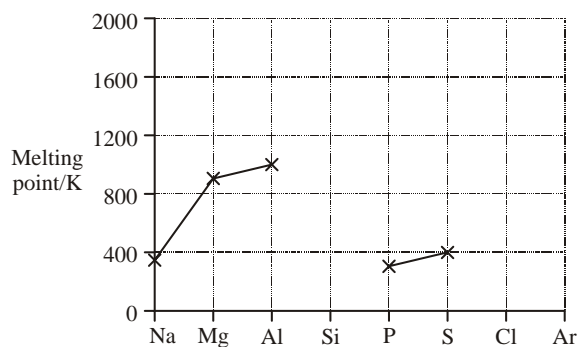


# 1.4 – PERIODICITY – PPQ2

Name ..... Form .....



- 2) a) The diagram below shows the melting points of some of the elements in Period 3.



- i) On the diagram, use crosses to mark the approximate positions of the melting points for the elements silicon, chlorine and argon. Complete the diagram by joining the crosses.

- ii) By referring to its structure and bonding, explain your choice of position for the melting point of silicon.

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- iii) Explain why the melting point of sulphur is higher than that of phosphorus.

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(9)

- b) i) State the general trend in the first ionisation energy of the Period 3 elements from Na to Ar.

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- ii) State how, and explain why, the first ionisation energy of aluminium does not follow this general trend.

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 .....  
 .....

(4)

- c) Give the equation, including state symbols, for the process which represents the second ionisation energy of aluminium.

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(1)