

0 2 . **1** Explain why the atomic radii of the elements decrease across Period 3 from sodium to chlorine.

[2 marks]

0 2 . **2** Explain why the melting point of sulfur (S_8) is greater than that of phosphorus (P_4).

[2 marks]

0 2 . **3** Explain why sodium oxide forms an alkaline solution when it reacts with water.

[2 marks]

0 2 . 4 Write an ionic equation for the reaction of phosphorus(V) oxide with an excess of sodium hydroxide solution.

[1 mark]

Turn over for the next question