

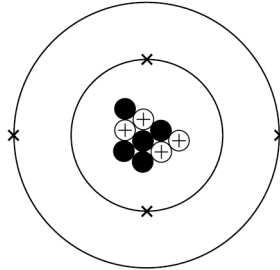
0 1

All substances are made from atoms.

0 1 . 1

Figure 1 represents a beryllium atom.

Figure 1



What is the number of protons and the number of neutrons in the beryllium atom?

[2 marks]

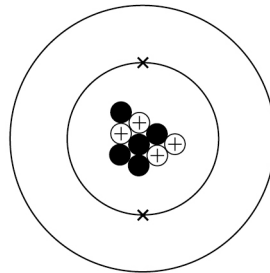
Number of protons _____

Number of neutrons _____

0 1 . 2

Figure 2 represents a beryllium ion.

Figure 2



What is the relative charge on a beryllium ion?

[1 mark]

Tick (✓) **one** box.

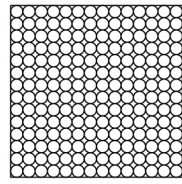
0 +1 +2

Turn over ►

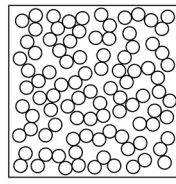


Figure 3 shows the arrangement of atoms in the three states of matter.

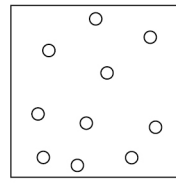
Figure 3



A



B



C

0 1 . 3 What state of matter is represented by state C in Figure 3?

[1 mark]

Tick (✓) **one** box.

Gas

Liquid

Solid



0 1 . 4 What is the name of the process when state **B** changes into state **A**?

Use **Figure 3**.

[1 mark]

Tick (✓) **one** box.

Condensing

Freezing

Melting

0 1 . 5 How can state **B** be changed into state **C**?

Use **Figure 3**.

[1 mark]

Question 1 continues on the next page

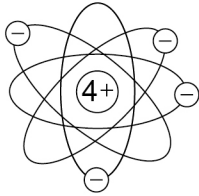
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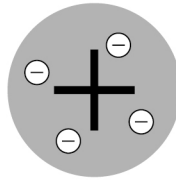
Experimental evidence led to the scientific model of the atom changing over time.

0 1 . 6 Figure 4 shows three models for the atom.

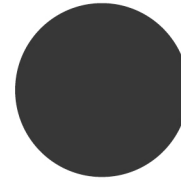
Figure 4



Nuclear model



Plum pudding model

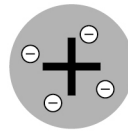
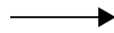
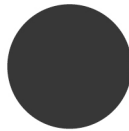
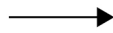
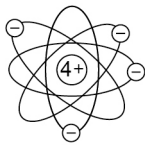


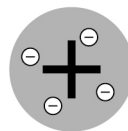
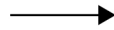
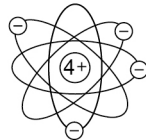
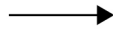
Tiny spheres model

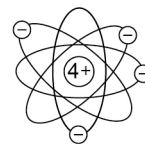
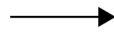
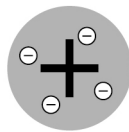
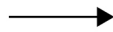
What is the order for the development of the model of the atom?

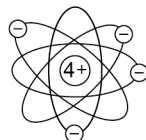
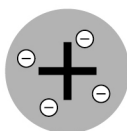
[1 mark]

Tick (✓) **one** box.











0 1 . 7

Complete the sentence.

Choose the answer from the box.

[1 mark]

Bohr

Chadwick

Mendeleev

The existence of neutrons was discovered by _____.

8

Turn over for the next question

Turn over ►



Question 1


Question	Answers	Extra information	Mark	AO / Spec. Ref.
01.1	(number of protons) 4		1	AO2
	(number of neutrons) 5		1	5.1.1.4 5.1.1.5

Question	Answers	Extra information	Mark	AO / Spec. Ref.
01.2	+2		1	AO2 5.1.1.7 5.2.1.2

Question	Answers	Extra information	Mark	AO / Spec. Ref.
01.3	gas		1	AO1 5.2.2.1

Question	Answers	Extra information	Mark	AO / Spec. Ref.
01.4	freezing		1	AO1 5.2.2.1

Question	Answers	Extra information	Mark	AO / Spec. Ref.
01.5	heat	allow evaporate / boil	1	AO1 5.2.2.1

Question	Answers	Extra information	Mark	AO / Spec. Ref.
01.6			1	AO1 5.1.1.3

Question	Answers	Extra information	Mark	AO / Spec. Ref.
01.7	chadwick		1	AO1 5.1.1.3

Total Question 1	8
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