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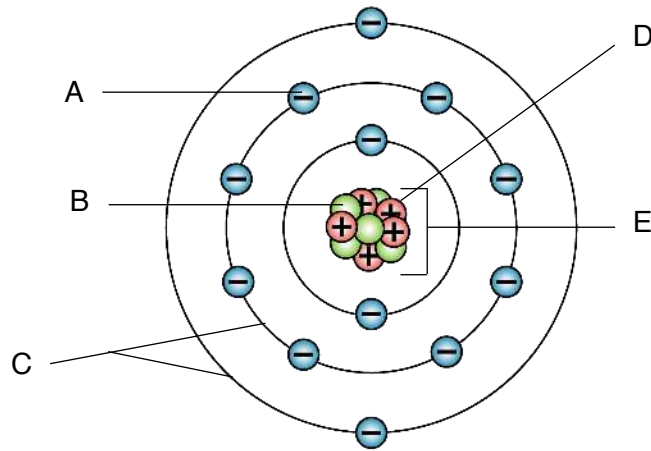
What can you conclude from the fact that scientists continue to update the atomic model?

[1 mark]

- New information about atoms continues to be discovered
- Old information about atoms is completely useless
- Scientists did not have any information about atoms until a few years ago
- Scientists still have no idea what atoms look like

0 2

Here is a diagram representing an atom:



0 2 . 1

Circle the letter which represents the area where the majority of an atom's mass exists? [1 mark]

0 2 . 2

What is the name of this part of the atom? [1 mark]

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0 3

Several different scientists made key discoveries about the structure of the atom.

0 3 . 1

Describe the key features of Thompson's plum pudding model of the atom. [2 marks]

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.....
.....

0 3 . 2

In 1922, Bohr changed the theory about how electrons are arranged around the atom. How did his ideas differ from our previous understanding?

[1 mark]

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0	3
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3

Chadwick discovered the neutron in 1932.

How are neutrons different from protons and electrons?

[1 mark]

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0	4
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In 1911, Rutherford and Marsden conducted an experiment involving bombarding a thin layer of gold foil with alpha particles. This was called the scattering experiment.

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1

In the scattering experiment, most of the particles fired at the foil:

[1 mark]

- bounced back
- passed through the foil
- were absorbed
- combined with the foil

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2

From these results, Rutherford discovered that atoms were mostly:

[1 mark]

- Negatively charged
- Positively charged
- Electrons
- Empty space

(Total 9 marks)

End