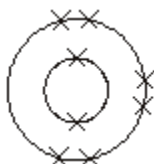


- 1 This question is about oxygen atoms. The periodic table on the Data Sheet may help you to answer this question.

Oxygen atoms have 8 electrons.

Complete the diagram to represent the arrangement of electrons in an oxygen atom.

Use crosses (×) to represent the electrons.



You can use dots for the electrons, but safest thing is to use what they ask in the question.

A common error is saying neutron, instead of nucleus.

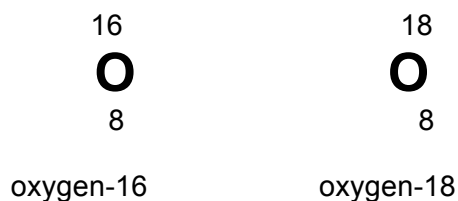
Name the part of the oxygen atom that is labeled **A** on the diagram.

Nucleus [1 mark]

You might get way with incorrect spelling as long as it looks like the word, but best advice is to learn the spelling

(1 mark)

- 1 (a) Two isotopes of oxygen are oxygen-16 and oxygen-18.



Explain, in terms of particles, how the nucleus of an oxygen-18 atom is different from the nucleus of an oxygen-16 atom.

It has more neutrons [1 mark]

It has 2 more neutrons [2 marks]

Or

O-16 has 8 neutrons [1 mark]

O-18 has 10 neutrons [1 mark]

If you said, different number of neutrons, you would get one mark, but the information given allows you to be more precise and say exactly how many more neutrons. You can't say refer to mass number because the question asks you about the particles.

(2 marks)

(Total 4 marks)