



Atomic
Structure –
Exam questions

2011 - Higher

- What are isotopes

2011 - Ordinary

Complete the table below by correctly inserting the words PROTON and ELECTRON.

particle	Relative mass	Relative charge	Location
Neutron	1	0	Inside nucleus
	1/1840	-1	Outside nucleus
	1	+1	Inside nucleus

2010 – Higher

- Potassium atom has atomic number 19 and a mass number of 39.
- Draw a diagram to clearly show the arrangement of electrons in the potassium atom.

2010 - Ordinary

Complete the table below by choosing the correct particle from the list on the right and matching it with the information in the table.

Proton
Electron
Neutron

Particle	Location	Relative charge	Relative mass
	Inside nucleus	+1	1
	Outside nucleus	-1	1/1850

2009 - Higher

- Approximately 98.89% of carbon on the surface of the earth and in the atmosphere is carbon-12 the remaining approximately 1.11% is carbon-13. The numbers 12 and 13 are mass numbers. The atomic number of carbon is 6.
- **How many neutrons** are in the nucleus of a carbon-13 atom?
- Carbon-12 and carbon-13 are _____ of carbon.

2009 - Ordinary

- The particles located **outside the nucleus** are the _____.
- The particles that have **no electric charge** are the _____.
- The particles that have a **positive charge** are the _____.
- The particles **lost, gained** or **shared** when atoms form bonds are the _____.

Protons
Electrons
Neutrons

2008 - Higher

- Compare the **charge and the mass** of an **electron** with the **charge and the mass** of a **proton**.
- Define atomic number.
- Naturally occurring lithium is a mixture of two isotopes. Explain the underlined term

2008 - Ordinary

- The _____ is a particle that has no electric charge.
- The _____ is a particle that has a positive charge.
- The _____ is a particle located outside the nucleus.
- The _____ is a particle that has a relative atomic mass of one unit.

Proton
Neutron
Electron

2007 – Higher

- Draw a diagram that represents a sodium atom.
- The atomic number of sodium is 11.

2006 - Higher

- Define the term '**isotope**'.
- Potassium has an atomic number of 19.
Give the arrangement of the electrons in an atom of potassium.

2006 - Ordinary

- **Protons** are _____ charged particles.
- **Electrons** are _____ charged particles.

NEGATIVELY

POSITIVELY