













## SC3 Atomic Structure







## SC3a Structure of an atom

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	Describe how Dalton's ideas about atoms have changed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Describe how the subatomic particles are arranged in an atom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Explain how atoms of different elements are different.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Recall the charges and relative masses of the three subatomic particles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Explain why all atoms have no overall charge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Describe how the size of an atom compares to the size of its nucleus.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SC3b Atomic number and mass number

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	State where most of the mass of an atom is found.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	State the meaning of atomic number.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	State the meaning of mass number.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Describe how the atoms of different elements vary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	State the number of electrons in an atom from its atomic number.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Calculate the numbers of protons, neutrons and electrons using atomic and mass numbers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SC3c Isotopes

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	State what is meant by an isotope.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Identify isotopes from information about the structure of atoms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Calculate the numbers of protons, neutrons and electrons using atomic numbers and mass numbers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Explain why the relative atomic mass of many elements is not a whole number.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	 Calculate the relative atomic mass of an element from the relative masses and abundances of its isotopes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>