



















CC3 Atomic Structure**CC3a 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"/> |

CC3b Atomic mass and 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"/> |

CC3c Atomic mass and number

| 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"/> |