

How atoms are made up
Criteria sheet

- 1. Atoms have a nucleus that contains protons and neutrons.
The nucleus is surrounded by electrons in different shells.**

I think that I know this

I have shown that I know this

- 2. The relative masses of a proton, neutron and an electron.**

I think that I know this

I have shown that I know this

- 3. The relative charges on a proton, neutron and an electron.**

I think that I know this

I have shown that I know this

- 4. All atoms in one element have the same number of protons in the nucleus.
Atoms of different elements have different numbers of protons in
the nucleus.**

I think that I know this

I have shown that I know this

- 5. The number of protons in the nucleus, the proton number, is also called the atomic
number.**

I think that I know this

I have shown that I know this

- 6. The number of protons and neutrons in the nucleus is called the mass number.**

I think that I know this

I have shown that I know this

7. Showing the symbol of an element, its atomic number and its mass number in shorthand form, like this:



I think I can do this

I have shown that I can do this

8. Filling in the gaps in a table like this:

Element	Symbol	Number of protons	Number of neutrons	Number of electrons	Atomic number	Mass number
	C	6				12
Lithium			4	3		

I think I can do this

I have shown that I can do this

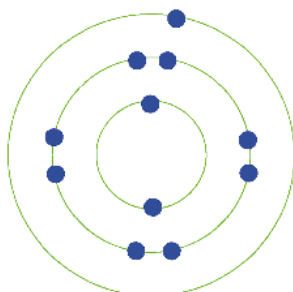
9. How the atoms of isotopes of elements are different from one another.

I think I can explain this

I have shown that I can explain this

10. The correct arrangements of electrons in shells, for elements of atomic number 1 to 20, in diagrams like this:

Sodium 2.8.1



I think I can draw them

I have shown that I can draw them