

C1 1.1 Atomic Number and Mass Number

Yr 9, Set 2

Wednesday 9th May 2012

Title: Atomic Number and Mass Number

Objective: identify and explain the atomic number and atomic mass of the elements

- I must be able to label the atomic number and atomic mass
- I should be able to calculate the number of protons, neutrons and electrons from this information
- I could demonstrate by making a model

Starter – write out the following statement and explain underneath why it is wrong

‘When different compounds join together, atoms of the same element are made.’

Can you remember from last lesson...

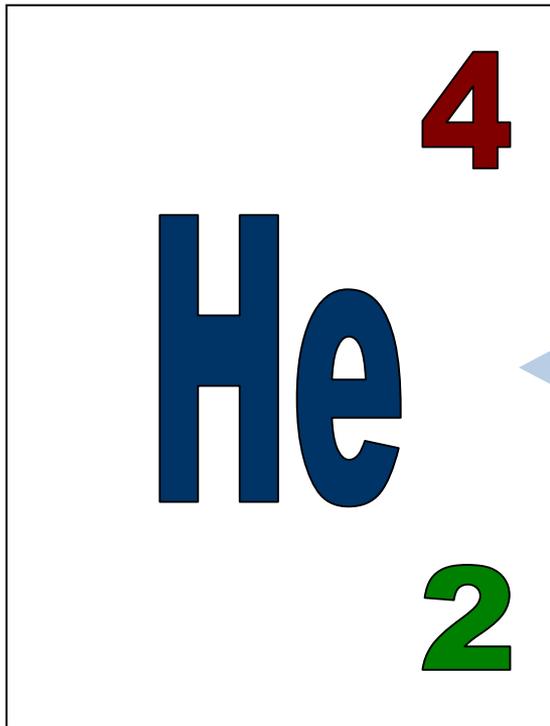
- 1) The names of the 3 components (called sub-atomic particles) of an atom?
- 2) The charges they have?.....have a go at the card sort in pairs

Watch the video

http://www.bbc.co.uk/schools/gcsebitesize/science/add_aqa_pre_2011/atomic/atomstrucact.shtml

1. In what order are the atoms arranged in the periodic table?
2. What are the different 'rings' called around the nucleus of the atom?

Mass and atomic number



MASS NUMBER = number of protons + number of neutrons

SYMBOL

PROTON NUMBER = number of protons

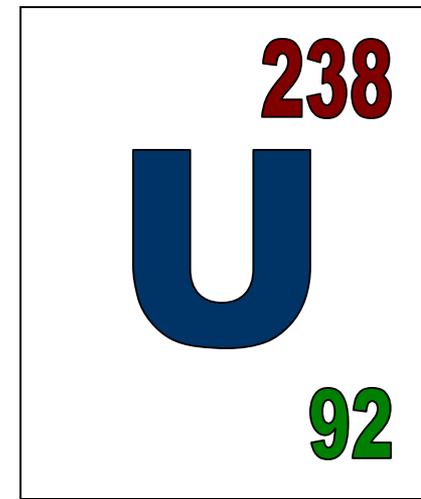
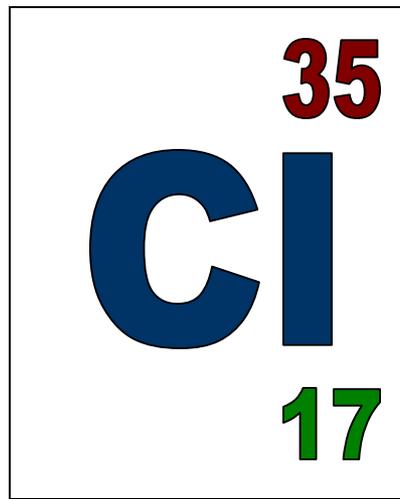
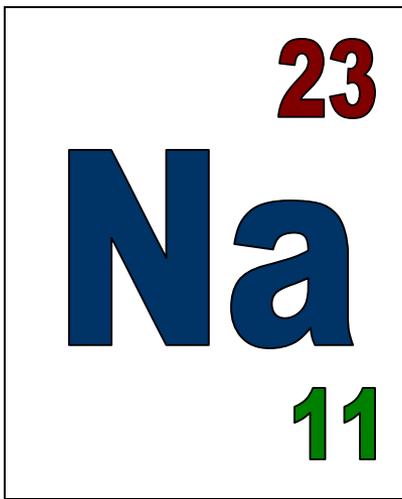
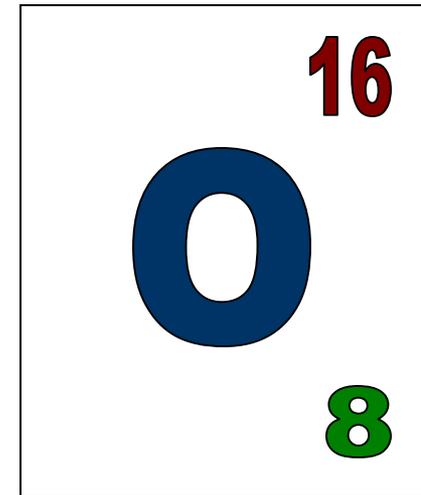
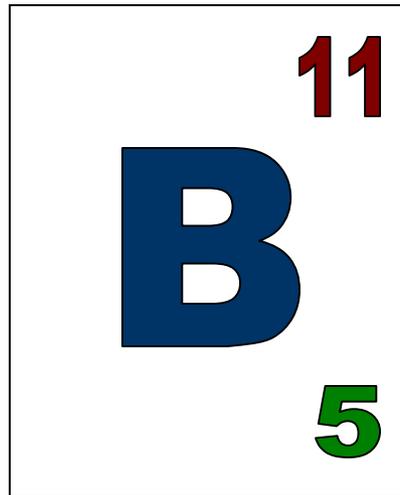
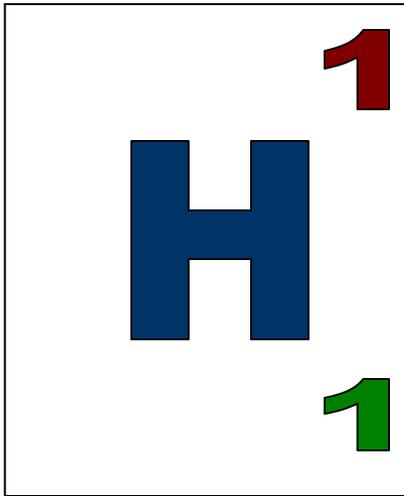
How Many Protons?

- Here is some data about elements taken from the Periodic Table.
- What is the atomic number of the elements?

		9			11
	23	56	119	19	27
	Na	Fe	Sn	F	Al
26	11	26	50	9	13
	13				50

Mass and atomic number

How many protons, neutrons and electrons?



Homework

1. Colour in the Periodic Table you have according to the **Groups** (see textbook page 139 for an example or use the internet)
2. **Mark** on all the groups
3. **Label** the alkali metals, alkaline earth metals, transition metals, halogens and noble gases
4. Label with as much info as you can!
5. **STICK IT INTO YOUR BOOKS**

Now have a go at your worksheet

When finished...pick one of the above elements and make a mobile out of it:

You'll need to make sure you have the correct number of protons, electrons and neutrons

Plenary

- Who Wants To Be a Millionaire?
- Q1-7