

Bing-Bing-Toe !!!

Match #1:
Foundations
Nuclear

BING-BING-TOE GAME RULES

		FREE Space		

Bing-bing-toe game rules

- Right side of room – X Left side of room – O
- 2 players from each team go head to head (standing by opposite team)
- Team may not help! Teams lose points for trying to distract the other team or help their team with answers.
- 1st to hold up board with correct answer gets to play a square.
- Each BING-TOE = 1 point

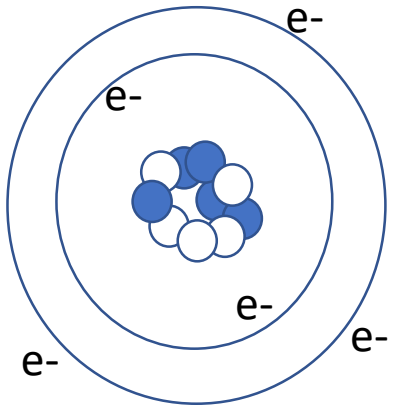
**How many atoms are in one
molecule of Al(OH)_3 ?**

**What particle did Thompson discover
and which experiment proved it?**

**What Three parts of Dalton's theory
remain true today?**

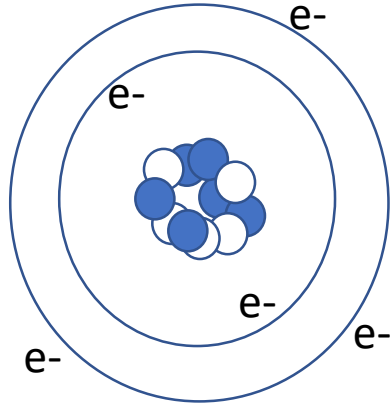
Do any of these atoms represent isotopes?

If so, which ones and why?



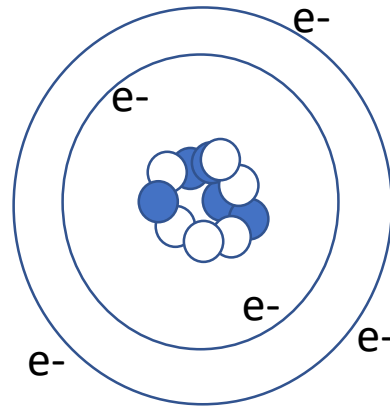
Atom A

5 protons
5 neutrons
5 electrons



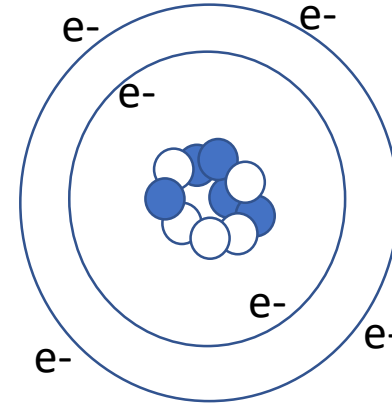
Atom B

6 protons
5 neutrons
5 electrons



Atom C

5 protons
6 neutrons
5 electrons



Atom D

5 protons
5 neutrons
6 electrons

**What Two parts of Daltons theory
Have been proven false?**

Name the phases of matter

**Name all phase changes and what
phases the change is between**

Draw a diagram for Rutherford's Experiment. Explain what it proved about atomic structure

**Name an element with similar
properties to iodine.**

How do you calculate mass number?

**How many valence Electrons do the
Halogen elements have?**

Define chemical change and physical change. Give an example of each.

**Name the three subatomic particles
and give their relative masses.**

Convert 15mi/day into in/sec

Classify Each Substance Below as:
Pure Substance (element or compound)
Mixture (homogeneous or heterogeneous).

How many valence electrons do the alkali metals have and what is the charge of their ions?

What radioactive emission changes a neutron into a proton?

The half-life of thorium-227 is 18.72 days How many days are required for three-fourths of a given amount to decay?

What radioactive emission changes a neutron into a proton?

**How many protons and neutrons are
in the nuclei of Tl-204 atoms?**

Uranium-235 undergoes alpha emission. What is the balanced eq.?

Neutron initiated fission of U-235 results in the release of 4 beta particles, the formation of Sr-90 and the release of another nucleus. What is the other nucleus?

Calculate the average atomic mass of Magnesium from these data. Magnesium occurs in nature in three isotopic forms:

Mg-24 (78.70% abundance)

Mg-26 (11.17% abundance)

Mg-25 (10.13% abundance)

What is nuclear fission?

A substance has a density of 1.39g/ml. You have 10g of the substance. What volume (in L) do you have?

**How many decigrams are in 437 kg?
Write in scientific notation!**

**How many sig. figs are in the
following values?**

612 kg

0.00067 ml

309.4 g

**Perform the calculation using
accurate sig figs**

$$1.31 \text{ cm} \times 2.3 \text{ cm} =$$

**Perform the calculation using
accurate sig figs
 $8.264\text{ g} - 7.8\text{ g} =$**

A radioactive substance has a half life of 125 days. What percent is left after 1.45 years?