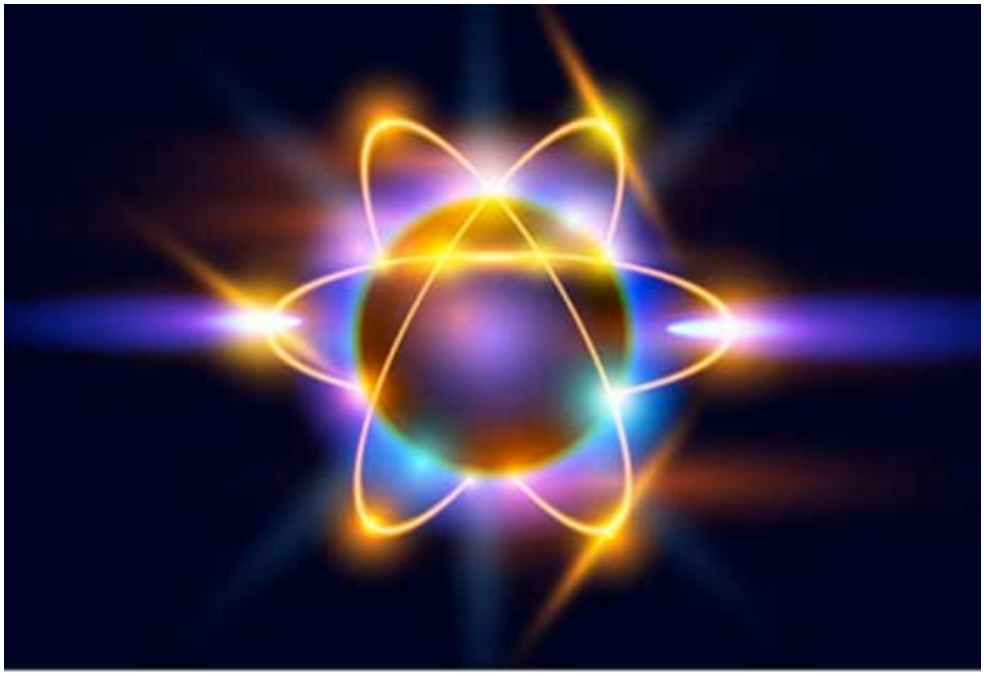
Welcome! Please grab your ISN and have a seat!

Read pages 106-108 in your online ebook (Ch4, section 2) on the cathode ray.



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WWK (PG. 33)

4. endothermic- a reaction that absorbs heat from the environment

5. exothermic- a reaction that releases heat into the environment.

6. atom- the smallest particle in an element that still retains the element's properties

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WWK (PG. 33)

7. nucleus- dense region in the center of an atom where all protons & neutrons are housed.

8. amu- atomic mass unit- 1/12 of the mass of a carbon-12 atom- protons & neutrons are approximately 1 amu.

9. valence electron- electrons on the outer most energy shell- used for bonding.

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TOC pg 37-38 Atomic Structure

Use your textbook, in Chapter 4, section 1, to answer the following questions.

Dalton's Atomic Theory

1. All matter is composed of atoms.
2. Atoms cannot be divided or destroyed.
3. Every atom in the same element is identical.
4. Atoms in one element are different than atoms of another element.
5. Atoms combine in whole # ratios to form compounds.
6. In a reaction, atoms are separated, combined, or rearranged.

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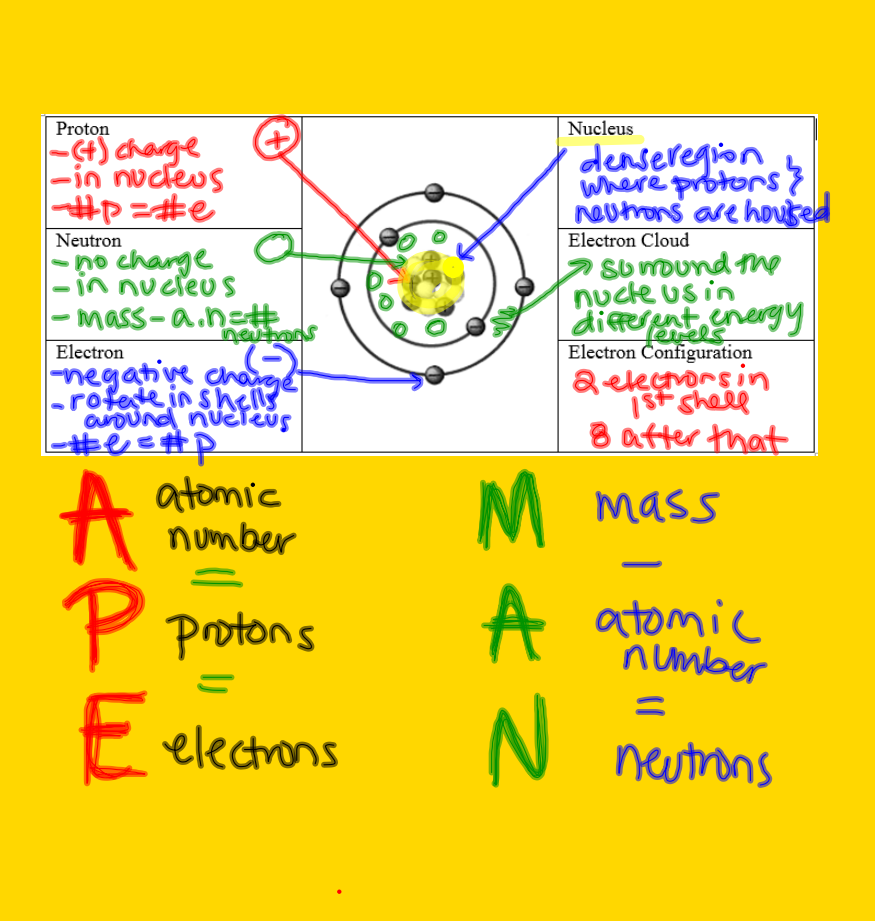

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Atomic Number placement in the periodic table # protons # electrons	Sodium 11 Na 22.990	Chemical Name name of the element... DUH...
Average Atomic Mass mass - atomic number = neutrons		Periodic Symbol symbol used in chemical reaction
Number of Electrons - same as # of protons - same as atomic number	Number of Neutrons mass - atomic # mass - protons mass - electrons	Number of Protons same as the atomic # same as # electrons

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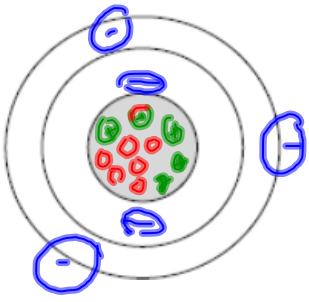
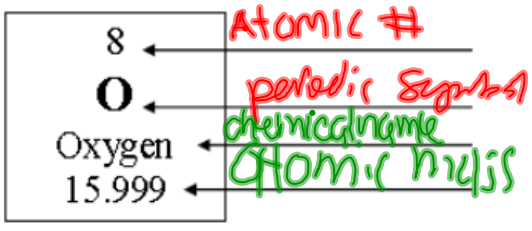
Examples page 37

Part A: Atomic Structure

1. Draw five protons in the nucleus of the atom. Label them with their charge.
2. Draw six neutrons in the nucleus of the atom.
3. Draw two electrons in the first energy level and label them with their charge.
4. Draw three electrons in the second energy level and label them with their charge.
5. What element is represented by the diagram? Boron



6. Label the information provided in the periodic table.



7. What does the atomic number represent?
electrons or protons

8. What does the atomic mass represent?
neutrons + atomic #

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Examples page 37

9. How would you figure the number of protons or electrons in an atom? look at the atomic #

10. How would you figure the number of neutrons in an atom?

mass # − atom #

11. Use your knowledge of atomic calculations to complete the chart.

Element	Atomic Number	Atomic Mass	Protons	Neutrons	Electrons
Li	3	7	3	4	3
P	15	31	15	16	15
Cl	17	35	17	18	17
Ni	28	59	28	31	28
K	19	39	19	20	19
Ag	47	108	47	61	47
H	1	1	1	0	1
Si	14	28	14	14	14
W	74	184	74	110	74
Ne	10	20	10	10	10

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