

Name _____ Date _____

Atoms, Ions and Isotopes

Purpose: To use M&M candy to model the construction of atoms. In this lab you will discover the wonders of a just recently discovered element. The symbol for the element is Mm. Its name is M&Mium (pronounced em-en-em-ee-um).

I. Single atom of Mm

1. Gather 4 protons (red) and 4 neutrons (brown). Put them close together to form the nucleus of the atom.
2. Gather 4 electrons (yellow). Place the electrons in "orbits" around the nucleus.
3. Make a sketch of your Mm atom. (Use colored pencils/crayons and mark the positive, negative and neutral particles.)



(Don't eat it yet!!) From this atom, some very important information can be collected.

The importance of the **atomic number** of an element is that it is **unique** for each element. **THE NUMBER OF PROTONS DOES NOT CHANGE!** If you change the **atomic number, you change the element.**

A second vital piece of information that can be obtained from your Mm is the **Mass Number**. The **Mass Number** is the **total number of protons and neutrons** in the nucleus of an atom.

Atomic Number = _____ (number of _____, color _____)

Mass Number = _____ (number of _____ + _____)

Does your Mm atom have a charge? Yes or No

How can you tell if there is a charge?