

Edible Atom Project

Your Element _____

Directions:

You are to make a model atom with at least 8 protons out of different types of food. The model must contain the right amount of protons, neutrons, and electrons. The electrons can not be touching the nucleus. As you know, the electrons move around the nucleus in electron clouds/shells/layers. The protons and neutrons must be in some type of a shell and packed tightly, or if not in a shell, bonded together so they don't fall apart. The shell might be a carved out watermelon or small pumpkin as examples, but be creative. Be careful about using food items that may rot over a period of time. You don't need to go shopping, feel free to use stuff from home if you can. You may use things that are not food for structure, but all non-food items must be covered with some type of food (i.e. if using a piece of wire to put the electrons on, you might put licorice around the wire so it doesn't show). Make sure that all protons are the same food item, all neutrons are the same item, but different from protons, and all electrons are the same items, but different from the protons and neutrons.

You will need:

- a key stating the atom, and what items represent what subatomic part.
- a short paragraph stating the name of your element, the number of protons, neutrons, and electrons are in your element.
- the atomic mass
- atomic weight
- if it is a liquid, gas, or solid
- the period it is in, the group it is in, and the type of family it belongs to (see below)
- what is its melting point, its boiling point, phase it is in at room temperature,
- who discovered it and what year
- what is in the name. Where did the name come from or what does it mean?

There are many websites to look at. A good resource is Jefferson Lab, but there are many others.

ELEMENT FAMILIES

- | | |
|-----------------------------|--------------------|
| - Alkali Metals | -Other Metals |
| - Alkaline Earth Metals | -Rare Earth Metals |
| - Transition Metals | -Metalloids |
| - Halogen Gases | -Non-Metals |
| - Inert Gases (Noble Gases) | |

Due: February 23, 2010. You may bring the atom in before class on Monday or Tuesday if you wish.