

The Nucleus: Crash Course Chemistry #1

1. Chemistry is the science of how three tiny particles, come together to form EVERYTHING! What are the three tiny particles?
2. What is the definition of “theory?”
3. Here's how it happened. In 1827, a botanist named _____ was looking at pollen grains in water through a microscope and he noticed that they jiggled randomly even when there was no movement to cause the jiggling.
4. The word "atom", indeed, is from the Greek for " _____ ", though, of course, as we learned in World War II, atoms can be broken as well.
5. Protons and neutrons hang out in the nucleus, and thus are the nuclear components or nucleons; electrons hang out around the _____ and are the parts of the atom that do all the interesting chemical stuff.
6. Silver, of course, because we've known about it for a long time, is one of the first elements added to the periodic table, and back then it was called "argentum", Latin for "shiny gray stuff", also, the root of the word " _____ ", where Spanish explorers heard rumors of mountains made of silver, which of course did not exist.
7. Nuclei, which is the plural of nucleus, are boring. They're thousands of times _____ than the atom as a whole and they mostly just sit around being exactly the same as they were when they were first created billions of years ago, held together by the strongest of the four fundamental forces of physics, the strong _____ force.
8. The atomic number of silver doesn't change as the number of neutrons changes because the number of _____ stays the same. But the relative atomic mass does change.
9. You'll note that I said these two different sorts of silver are called _____, they have different masses but the same chemical properties, and are the same element

and so belong on the same place on the periodic table. In fact, the word "isotope" means "_____".

10. The chemical symbol, with the atomic number or number of protons here, the mass number, or number of protons and neutrons here, and the charge out here, which tells you by simple addition or subtraction how many _____ there are.

11. List and explain 2 things you learned or found interesting in the video: