

Atomic Structure Interactive Learning Activity Answer Key

Directions: Answer the following questions, as you complete the Atomic Structure Interactive. Share this document with your teacher and use this activity as your notes. You will need them for the final project.

1. Describe the movement of the carbon atoms in the tip of the pencil.

Answer: The atoms are vibrating.

2. Complete the table below about the subatomic particles of an atom.

Subatomic Particle	Where is it located?	What is the charge?	What is the mass?	What is one additional fact?
Proton	Nucleus	+1 (positive)	1 amu	Answers may vary - The number determines what element the atom will be, determines the atomic number, heavier piece of the atom,
Neutron	Nucleus	0 (Neutral)	1 amu	Answers may vary - they hold the protons together,
Electron	Outside the nucleus	-1 (negative)	Virtually nothing	Answers may vary - they are in constant motion, can move from one atom to another, can be shared by other atoms

3. Elements are pure substances which contain only one kind of atom. How is the atomic number of an element determined?

Answer: By the number of protons

4. Describe the location and subatomic particles that make up the nucleus of an atom.

Answer: The nucleus is located in the center of an atom and is made up of protons and neutrons.

5. If an atom has 8 protons and 8 neutrons, what is the atomic number?

Answer: The atomic number is 8

6. If an atom has 7 protons, how many electrons does it need to have to make it neutral?

Answer: It needs 7 electrons.