

Mrs. Brown's Atomic Structure Review Stations

Name _____ Date ____ Period _____ Use the sheets and manipulatives to complete the following activities. Get my initials before moving onto the next activity. Use PENCIL!

Activity 1- Vocabulary

The definitions of the following terms are mixed up at the table. Match the definition with the term and write it completely in the appropriate space below:

Atom	
Proton	
Neutron	
Electron	
Nucleus	
Electron Cloud	
Atomic Mass	
Atomic Number	

Mrs. Brown's Initials _____ Move on to Activity 2

Activity 2: Fill-in-the-Blank

Use the terms in the wordle at the station to fill in the blanks in the paragraph below. You will use every word and some words may be used more than once!

All	is made up of atoms. Atoms th	emselves are made up o	of three fundamental	
particles; protons,	neutrons, and electrons.	and	are found in the dense center of the	
atom, called the	The	are found in	the space around the center known as the	
electron	Information about thes	e particles for each	can be found on the	
	table. Each element has its own	square. No two elemen	ts have the same number of protons.	
Therefore, no two	elements have the same atomic	The ator	nic number always represents the number	
of	_ in an atom of that element. Becau	use atoms are electricall	y neutral, the atomic number also	
indicates the number of in the atom o		of that element. To dete	ermine the number of neutrons in an	
average atom of a given element, you must use the average atomic This is because the atomic mass is the				
sum of the protons	and in the nucleus.	To find the neutron nur	mber you must use the following	
equation:				

Atomic ______ - Atomic ______ = neutron number

Mrs. Brown's Initials _____ Move on to Activity 3

Activity 3- Atomic Models

Use the element squares. Dr Element Square A)	w the atoms and then answer the questions. Element Square B)
Atomic #	Atomic #
Atomic Mass	Atomic Mass
How many in a neutral a	om? How many in a neutral atom?
p ⁺ =	p ⁺ =
nº =	nº =
e. =	e. =
Mrs. Brown	s Initials Move on to Activity 4
Acti	ity 4: Use the Clues Some More!
Nucleus Protons Electron Neutrons	 What element does this atom represent?
1 2.	3 4
Mrs. Brown's Initials	Great Job!!! Turn the sheet into the tray!!!

Definitions- Make copies for each table (cut) for centers or 1 copy (cut) for stations

The smallest particle of an element that still retains the properties of that element.

A positively charged particle with a mass of 1 AMU that is found in the nucleus of an atom.

A particle with a mass of 1 AMU and no charge (therefore neutral) that is found in the nucleus of an atom.

A negatively charged particle with almost no mass that is found orbiting the outside of the nucleus in the cloud.

The dense massive center of the atom with an overall positive charge.

The region around the center of the atom that takes up most of the space in the atom.

The mass of the atom equal to the sum of the protons and the neutrons in the nucleus.

The number of protons in an atom of a given element and the number of electrons in a neutral atom of that element.

Wordle for Activity 2. Use the terms to fill in the blanks!



Element Squares for Activity 3.



Element B Titanium 22 Ti 47.867

Multiple Choice Task Cards for Activity 5.

 An element has a proton number of 20 and a mass number of 40.01. How many neutrons does the element have? A) 40.01 B) 40 C) 20.01 D) 20 	 2. An element has a proton number of 20 and a mass number of 40.08. What is the element? A) Zirconium B) Calcium C) Neodynium D) Argon
 3. An element has a proton number of 10 and a neutron number of 11? What is the atomic mass? A) 10 B) 20 C) 11 D) 21 	 4. A neutral atom has a proton number of 10 and a neutron number of 11? What is the electron number? A) 10 B) 20 C) 11 D) 21