Name: Key Datum _____ Klasse _____

Quiz Date _____

Unit 1 Check for Understanding – Atomic Theory

Supporting Target 8.1.1: I can list the three different types of subatomic particles and identify the location of each in atom.
Supporting Target 8.1.2: I can describe the charge and the mass of each subatomic particle.

Name the three subatomic particles in boxes A. B. and C. Then, fill out the following table with the properties for each type of subatomic particle, its mass, location, and charge of particle.

		A.	B.	C
1.	Type of Particle	PROTON	Neutron	ELECTRON
2.	Location in Atom	NUCLEUS	NUCLEUS	Energy Level
3.	Mass of Particle (amu)	1	1	0
4.	Charge of Particle	positive (+)	neutral (0)	negative (−)

Supporting Target 8.1.3. I can locate the atomic mass and atomic number for any element on the periodic table and use it to determine the amount of each subatomic particle.

Use your periodic table to fill out the following table with the atomic number, atomic mass, and the number of each type of subatomic particle for each element.

	Name of Element	Symbol	Atomic Number	Atomic Mass	# Protons	# Neutrons	# Electrons
5.	Gold	Au	79	196.7	79	197−79= 118	79
6.	Zirconium	Zr	40	91.2	40	91−40= 51	40
7.	Cesium	Cs	55	132.9	55	133−55= 128	55

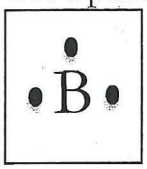
Supporting Target 8.1.4. I can identify how many electrons can be held in the first three energy levels.

Answer the following questions about the Bohr Model Diagram

8. How many electrons will "fit" on the 1st energy level? 2
9. How many electrons will "fit" on the 2nd energy level? 8
10. How many electrons will "fit" on the 3rd energy level? 8

Supporting Target 8.1.5 I can use a Lewis Dot and identify the number of valence electrons for any of the first 20 elements.

Use a periodic table and the following Lewis Dot structure and answer the following questions



11. How many **total electrons** does the atom, "B" have? 5
12. How many **valence electrons** does the atom, "B" have? 3

Long Term Target

I can use the periodic table to create Bohr models and Lewis Dot Structures for any of the first 20 elements.

Use the element information provided below to

13. Complete the table
14. Draw the Bohr Model
15. Draw the Lewis Dot Structure

14
Si
Silicon
28.1

13a.	13b.	14.	15. Lewis Dot Structure
Atomic Number: 14 Atomic Mass: 28.1	Protons: 14 Neutrons: 14 Electrons: 14