Subatomic Particles and Atomic Structure
Homework

Substance	Symbol	Atomic Number (Z)	Atomic Mass (A)	Protons	Neutrons	Electons
Helium	He	2	4			
		12			12	
Zinc		30	65			
Bromine	Br		80			35
				13	14	
Uranium	U				146	92
Sodium	Na	11			12	
Krypton	Kr				48	36
			40	20		
				47	61	
		8				
				70		
	Co					
Tin						

1. Today in class you learned about the origin of all the elements on the period table. Important events and concepts included: the "Big Bang," expansion and cooling, hydrogen, stars, fusion, super nova and Uranium. Using these terms, describe the processes that led to the formation of all 92 naturally occurring elements.

2. Atoms are amazingly small and unusual particles. Today, we learned some surprising truths about atoms, using some strange analogies. For each of these analogies, explain their significance.

"There are as many atoms in a grapefruit as there are blueberries in the earth"

"The nucleus of an atom would be the size of a marble if the atom were the size of a football stadium"

To create matter in a one cubic foot box as dense as a nucleus, 6,200,000,000 cars would need to be compressed into the box.