

Name: _____

Period: _____

9

Chemistry

Homework: Modelling, Atomic Theory, and the Periodic Table

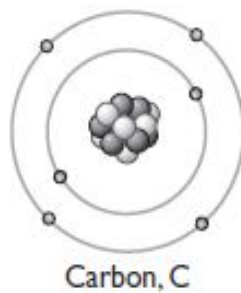
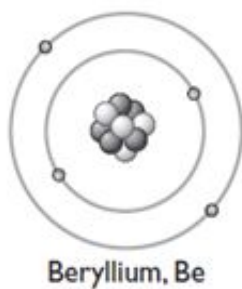
- Imagine that you have received a present that you are not allowed to open. You REALLY want to open it, but you don't want to spoil the surprise.
 - List three things you could do to find out what is in the present without opening it.
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 - Using the "data" you would collect from the things you listed above in part a, describe what kind of model you would create and how you could determine what the present is without opening it.
- What evidence caused Thompson to change Dalton's solid sphere model into the plum pudding model?
- Name all the elements found in the chemical formula for sodium nitrate, NaNO_3 . (Write the name, not the abbreviation).
- Use the periodic table to fill in the following table:

Element	Chemical Symbol	Atomic Number	Number of Protons	Number of Electrons	Number of Neutrons	Average Atomic Mass
Nickel						
	Ne					
						24.31
		15				
				30		

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5. a. Below is a simple atomic model of an atom of Beryllium, Be, and Carbon, C. Color code the parts of this model and complete the key to denote which color represents what.



KEY	
Protons	
Neutrons	
Electrons	

- b. Draw a simple atomic model of an atom of Oxygen, O, that contains 9 neutrons. Color code the protons, neutrons, electrons and nucleus in your model, and include a key.

6. Provide the following information for element number 17.

- The element's name and symbol.
- The number of protons in the nucleus.
- The number of electrons in a neutral atom.