

History of the Atom – Worksheet/Review sheet

Name: Answer Key

Period: -

1. State 2 similarities between Dalton's and the Modern Day model of the atom.

1) Spherical in shape

2) Small Size

2. State the most important difference between Dalton's and Thomson's model of the atom.

Thomson recognized that the atom was very small like Dalton but he proposed that the atom has regions of different charges.

3. What instrument did Thomson use in the making of his model of the atom? Cathode ray tube

4. What did Thompson call the “cathode particles” he observed? Electrons

5. What charge did these “cathode particles” possess? Negative

6. Make a diagram of Thomson's model of the atom. Identify the parts.



Plum Pudding Red Dots – Electrons (Plum) and the Blue Sphere – Positive Charged Cloud (Pudding)

7. When two objects of the same charge are brought close together what occurs? Repulsion

8. When two objects of different charge are brought close together what occurs? Attraction

9. When a charged object is brought towards a neutral object what occurs? Nothing, No Interaction

10. What part of the atom did Rutherford discover? Nucleus

11. What charge does the nucleus have? Positive

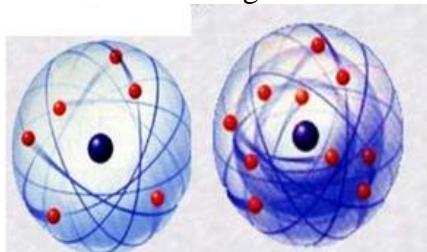
12. What are the positive particles in the nucleus called? Protons

13. What other particle is found in the nucleus? Neutrons

14. What similarity is there between Thomson and Rutherford's model of the atom? Both models recognize the existence of positively and negatively charged regions in the atom.

15. In Bohr's model of the atom where are the electrons found? Quantified Orbits

16. Make a diagram of Bohr's and Rutherford's model of the atom. Identify the parts.



Planetary Quantified Orbits

Rutherford

Bohr

The red spheres are the electrons while the dark blue sphere in the center is the nucleus. In Rutherford's model, the electrons orbit the nucleus like planets move around the sun. In Bohr's model, the electrons move around the nucleus in specific orbits.