

Name: \_\_\_\_\_

Period: \_\_\_\_\_

Seat#: \_\_\_\_\_

**Section 1: Dalton's Theories**

- Site: <https://tinyurl.com/yxstdhwp>
- Site: <https://tinyurl.com/y46xn8y6>

1) Summarize (in your own words) the five parts to Dalton's Atomic Theory.

2) What are two problems with Dalton's Atomic Theory that we know with today's knowledge?

**Section 2: First Subatomic Particle of the Atom**

- Site: <https://tinyurl.com/y3qsnv2v>
- Site: <https://tinyurl.com/y5q8ooz7> (look for Thomson)

3) "Atoms are small, indivisible particles. There is nothing smaller than an atom." Why would Thomson disagree with this statement?

4) What subatomic particle did Thomson discover and what was its charge?

5) Describe how Thomson found the subatomic particle?

6) If the positive side of a magnet was placed near the cathode ray would the ray bend towards or away from the magnet? Explain.

7) What is the name of the main piece of equipment used by Thomson? After doing some internet search what is it used for today?

**Section 3: Finding the Mass of the Atom**

- Site: <https://tinyurl.com/y5rjobqw>

- 8) What was the name of Rutherford's most famous experiment?
- 9) Describe and/or illustrate what Rutherford's experiments looked like.
- 10) What did Rutherford conclude was in the middle of the atom?
- 11) Use what you know about matter to explain why Rutherford concluded that it was a positive charge in the center of the atom.
- 12) Why did most of the alpha particle go through the gold foil?
- 13) J.J. Thomson said the atom is filled with "positive sea" with small, negative particles called electrons. Would Rutherford agree or disagree with this statement? Why?

**Section 4: Bohr Atom**

- Site: <https://tinyurl.com/y4eppmh5>
- Site: <https://tinyurl.com/y4j34c5y>

- 14) What happens to an electron's location when it absorbs energy? What happens when it radiates energy?  
(3<sup>rd</sup> paragraph)
- 15) What problems are found with the Bohr model?
- 16) Draw and label the parts of the atom for a Bohr Model atom