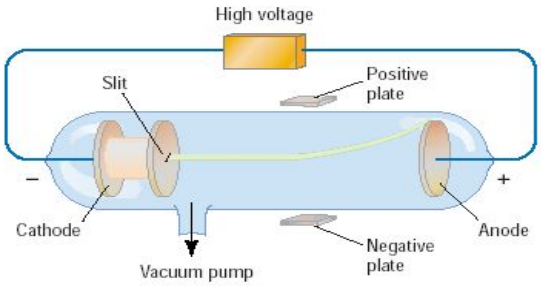
Name: _____ **Date:** _____

Chemistry *~ Ms. Hart* **Class:** Anions or Cations

THE URBAN ASSEMBLY SCHOOL FOR CRIMINAL JUSTICE

3.3 - Thomson's Atomic Model

What is a cathode ray tube?



Purpose of the experiment:

_____

_____

Hypothesis:

_____

_____

The Experiment:

_____

_____

_____

_____

The Results:

_____

_____

_____

_____

The Conclusion:

_____

_____

_____

_____

How did Thomson know that the cathode ray in the cathode ray tube was negatively charged?

The Results #2:

The Conclusion #2:

The Results #3:

The Conclusion #3:

Thomson Atomic Model

_____

_____

_____

_____

_____

_____

Plums = _____

Pudding = _____

Why did he think "the pudding" was the positively charged?

_____

_____

Why did he think the "pudding" was most of the mass and volume of the atom?

_____

_____

SUM IT UP!

- Atoms have electrons -> negatively charged
- Atoms are overall neutral ->must have + particles
- Electrons mass is SO small -> much smaller than the overall mass of an atom -> something else in the atom must make up most of mass of the atom
- All elements had the same charge to mass ratio ->all elements have electrons and all electrons are the same

Thomson Atomic Model HW

1) Draw the Dalton model of an atom.

2) Draw the Thomson model of an atom.

3) What experimental evidence did Thomson have for each of the following statements.
   a. Electrons have a negative charge.

   b. Atoms of all elements contain electrons.

4) Would you expect two electrons to attract or repel each other and why?

_____

_____

_____

_____

5) Why does it make sense that if an atom were to lose electrons, it is left with a positive charge?

_____

_____

_____

_____

6) Why did Thomson assume that the electrons were in a "pudding" of positive charge?

_____

_____

_____

_____