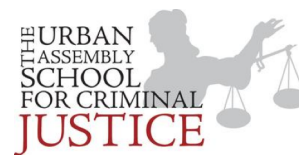


Name: _____ Date: _____

Chemistry ~ Ms. Hart

Class:

Anions or Cations



3.4 HW Rutherford

1. How are protons and neutrons similar? _____

2. How are protons and neutrons different? _____

3. How are protons and electrons similar? _____

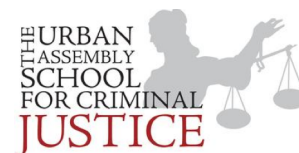
4. How are protons and electrons different? _____

Name: _____ Date: _____

Chemistry ~ Ms. Hart

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5. Complete the reading below to answer the questions:

1897, J. J. Thomson demonstrated in an experiment that cathode rays were deflected by an electric field. This suggested that cathode rays were composed of negatively charged particles found in all atoms. Thomson concluded that the atom was a positively charged sphere of almost uniform density in which negatively charged particles were embedded. The total negative charge in the atom was balanced by the positive charge, making the atom electrically neutral.

In the early 1900s, Ernest Rutherford bombarded a very thin sheet of gold foil with alpha particles. After interpreting the results of the gold foil experiment, Rutherford proposed a more sophisticated model of the atom.

State one conclusion from Rutherford's experiment that contradicts one conclusion made by Thomson.

State one aspect of the modern model of the atom that agrees with a conclusion made by Thomson.

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