**History of the Atom:** Complete the timeline using the reading.

1911

1800

1932

1899

450BC

1897

**Guided Questions:** Be sure to use the stopping points from the reading to help you answer each question!

1. Explain why Democritus’ idea of atoms was rejected for many years.
2. Using the molecule H2O (water) as an example, describe all three parts of Dalton’s Atomic Theory.
3. Describe the three sub-atomic particles, discovered after Dalton, that make up atoms. (they are underlined in the text)

|  |  |
| --- | --- |
| **Particle** | **Description** |
| Electron |  |
| Proton |  |
| Neutron |  |

1. Use the chart to describe the way each scientist arranged the atomic structure, based on their studies. You must provide a written AND visual description.

|  |  |  |  |
| --- | --- | --- | --- |
| **Scientist** | **DALTON** | **THOMPSON** | **RUTHERFORD** |
| WrittenDescription |  |  |  |
| Visual |  |  |  |

1. After reading, define ATOM, in your own words.

**History of the Atom Reading Questions:** Be sure to cite any paragraphs that helped you answer each question in the citation box to the left!

1. Explain why Democritus’ idea of atoms was rejected for many years.

Citation

1. Using ANY molecule or compound that you know, as an example, describe the three aspects of Dalton’s Atomic Theory.

Citation

 Compound: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Name and describe the three sub-atomic particles that make up an atom. Be sure to describe their charges.

Citation

1. Complete the chart to explain how each scientist modeled atomic structure.

|  |  |  |  |
| --- | --- | --- | --- |
| **Scientist** | **DALTON** | **THOMPSON** | **RUTHERFORD** |
| WrittenDescription |  |  |  |
| Visual |  |  |  |

1. After reading, briefly define ATOM, in your own words.