

History of the Atom

In this assignment you will be learning how our knowledge of the atom has developed over time. You will focus on the scientists and models listed below.

Answer the following questions. Once you have researched and found the information about each scientist or model, you will be filling in the timeline on the last page.

On the timeline you will need to include:

- The scientist or model's name
- The year in which their work was done
- A summary of their major contribution to the development of the atom
- The pictures and videos you found for the models and experiments.

Democritus

- What was his contribution to atomic theory?

- When did he make this theory?

- Before Democritus proposed his idea, people accepted Aristotle's view of what things were composed of. What did Aristotle believe?

- Find or draw a picture of what Democritus thought the atom looked like.

Dalton

- Dalton proposed an atomic theory. What were the points of his theory?

- When did he make this theory?

- Some of his points still hold true today but others have been modified. Which of his points are no longer true? Why are they not true?

- Find or draw a picture of what Dalton thought the atom looked like.

Thomson

- What did Thompson discover?
- What did he use to discover it?
- Find a picture or video that explains how he discovered it.
- When did he discover it?
- After his discovery, he made a new model of the atom. What was it called?
- Describe his model of the atom.
- Find or draw a picture of Thomson's model of the atom.

Rutherford

- He performed an awesome experiment. What was it called?
- Find a picture or video that explains his experiment.
- What part of the atom was discovered from this experiment?
- When did he discover it?
- What did this experiment contribute to our knowledge of the atom?

Bohr

- Find or draw a picture of what Bohr thought the atom looked like.
- What is another name for his model? Why is it called this?
- When did he create this model?

Modern Atomic Theory

- What is the name of our current model?
- When did we accept this model?
- How is it different from Bohr's model?
- Find or draw a picture of the current model of the atom.

Resources to Use

Atomic Model	Links (open in a new window)
Democritus model	Stanford Encyclopedia of Philosophy: Democritus Hellenica: Democritus, Epicurus, and Aristotle on Atoms Click and Learn: Atomic Theories
Dalton model	Dalton's Atomic Theory - IUN Notes General Chemistry Online Click and Learn: Atomic Theories
Thomson model	American Institute of Physics: A Look Inside the Atom Eggescliffe School Physics: A Brief History of the Electron Click and Learn: Atomic Theories
Rutherford model	Molecular Expressions: The Rutherford Experiment University of Virginia: Rutherford Scattering Click and Learn: Atomic Theories
Bohr model	University of Tennessee: The Bohr Model Physics 2000: Bohr's Atom Click and Learn: Atomic Theories
Modern model	Universe Today: Electron Cloud Model Regents Exam Prep Center: The Cloud Model Click and Learn: Atomic Theories

Timeline

