

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## Activity – Atomic Theory Foldable

### Objectives

1. To trace the development of the atomic model.
2. To recognize the different atomic models developed.

### Materials

Colored Paper printed with Title Information and one sheet of white paper  
Colored pencils  
Handout with Discovery Timeline


### Procedure – Outside of Foldable

1. Watch teacher to see how to place the white paper on the inside and fold appropriately for the foldable.
2. Once the paper has been arranged properly, staple together.
3. Open the book. Using a ruler, draw two lines to divide the first two papers into 3 sections – drawn line will cross the binder formed by staples.



4. Label each of the sections on the different “tabs”.  
Label the 2<sup>nd</sup> page tab: Democritus, Dalton, Thompson  
Label the 3<sup>rd</sup> page tab: Rutherford, Bohr, Current Theory  
Label the bottom tab (which should be the back paper): Timeline

5. When completed, the outside of the foldable should look like the following:

<b>Development Of The Atomic Theory</b>		
		
Book created by _____ Per _____		
Date _____		
Democritus	Dalton	Thompson
Rutherford	Bohr	Current Theory
Timeline		

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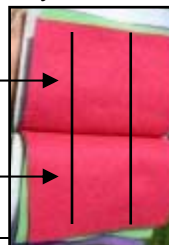
**Procedure – Inside of Foldable (Diagrams and Descriptions)**

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1. Page 1 and Page 2: Use the following chart to complete first two pages of the foldable. The top ½ section will be your written descriptions and the bottom section ½ will be your diagrams.

Your information will be written here. →

Your diagrams will be drawn here. →



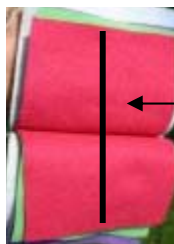
Atomic Model	Top ½ Description	Bottom ½ Diagram
Democritus	<ul style="list-style-type: none"><li>• Explain Democritus' belief in atoms</li><li>• Contrast with Aristotle's belief about atoms</li></ul>	Diagram solid sphere Title – Greek Model Date of model
Dalton	<ul style="list-style-type: none"><li>• Write the main points of Dalton's Atomic Theory</li></ul>	Diagram solid sphere Title – Billiard Ball Model Date of model
Thomson	<ul style="list-style-type: none"><li>• Explain which experiment led to the discovery of this atomic model</li><li>• Explain the fundamental difference between this atomic model and the previous</li></ul>	Diagram Thomson's atom Title – Plum Pudding Model Date of model
Rutherford	<ul style="list-style-type: none"><li>• Explain which experiment led to the discovery of this atomic model</li><li>• Explain the fundamental difference between this atomic model and the previous</li></ul>	Diagram Rutherford's atom Title – Nuclear Model Date of model
Bohr	<ul style="list-style-type: none"><li>• Explain Bohr's belief about the electrons</li><li>• Explain the fundamental difference between this atomic model and the previous</li></ul>	Diagram Bohr's model Title – Planetary Model Date of model
Quantum Theory	<ul style="list-style-type: none"><li>• Explain which scientists were involved in the development of this atomic model</li><li>• Explain the fundamental difference between this atomic model and the previous</li></ul>	Diagram the current atomic model Title – Quantum Theory

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### Procedure – Last Page of Foldable (Timeline)

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1. Open the book. Using a ruler, draw one line to divide the paper into 2 sections – drawn line will cross the binder formed by staples. This line will form your time line.
2. The right side will be for certain events that are required to be on your timeline while the left side will be for events of your choosing.



← This will be your timeline.

3. The events that need to be included on the right side are:
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Events to Include on Timeline		
Date	Who	What (Discovered/Done)
420 BC	Democritus	Idea of Atoms
1800	Dalton	Dalton proposes atomic theory
1897	Thomson	Thomson discovers the electron
1911	Rutherford	The nuclear model of the atom is proposed
1913	Bohr	The planetary model of the atom is proposed
1920		Quantum model of the atom is proposed
1932	Chadwick	Chadwick discovers the neutron

4. Look at the timeline handout to choose 10 items of *your choice*. Write these items on the left side of the timeline.
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