

## Skills Worksheet

**Reinforcement****Atomic Timeline**

**Complete this worksheet after you have finished reading the section “Development of the Atomic Theory.”**

The table below contains a number of statements connected to major discoveries in the development of atomic theory.

- In each box, write the name of the scientist(s) associated with the statement. Choose from among the following scientists: Democritus, Rutherford, Thomson, Dalton, Bohr, Schrödinger, and Heisenberg.
- On a separate sheet of paper, construct a timeline, and label the following: 440 BCE, 1803, 1897, 1909–1911, 1913, and the twentieth century. Cut out the boxes and tape or glue each box at the correct point along the timeline.

<b>A.</b> Most of an atom’s mass is in the nucleus.	<b>B.</b> There is a small, dense, positively charged nucleus.
<b>C.</b> There are small, negatively charged particles inside an atom.	<b>D.</b> Electrons can jump from a path in one level to a path in another level.
<b>E.</b> Atoms of different elements are different.	<b>F.</b> He conducted the cathode-ray tube experiment.
<b>G.</b> Atoms are small, hard particles.	<b>H.</b> Atoms contain mostly empty space.
<b>I.</b> Atoms are “uncuttable.”	<b>J.</b> He conducted experiments in combining elements.
<b>K.</b> Electrons travel in certain paths, or energy levels.	<b>L.</b> Electron paths cannot be predicted.
<b>M.</b> His theory of atomic structure led to the “plum-pudding” model.	<b>N.</b> His model had electrons surrounding the nucleus at a distance.
<b>O.</b> Atoms of the same element are exactly alike.	<b>P.</b> Electrons are found in electron clouds, not paths.
<b>Q.</b> All substances are made of atoms.	<b>R.</b> Atoms are made of a single material formed into different shapes and sizes.
<b>S.</b> He conducted the gold foil experiment.	<b>T.</b> He wanted to know why elements combine in specific proportions.