

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

### Anticipation Guide: Developing a Model of the Atom

Before starting the activity, mark whether you agree (+) or disagree (—) with each statement below.

After completing the activity, mark whether you agree (+) or disagree (—) with each statement below. Under each statement, explain how the activity gave evidence to support or change your ideas.

**Before**

**After**

\_\_\_\_\_

\_\_\_\_\_

1. Atoms are small solid particles.

\_\_\_\_\_

\_\_\_\_\_

2. Scientists now have a complete understanding of the atom.

\_\_\_\_\_

\_\_\_\_\_

3. Most scientists do not refer to the work of other scientists because they want to keep their ideas fresh and do not want to be influenced by the thinking of others.

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\_\_\_\_\_ 4. Atoms are composed mainly of empty space.

\_\_\_\_\_ 5. Since scientists cannot actually see inside atoms, it is not possible to believe any models of the atom that have been developed.

\_\_\_\_\_ 6. Scientists develop new models when there is evidence that the old model is wrong or incomplete.

\_\_\_\_\_ 7. Early models of the atom were useless theories, which were eventually discarded.

\_\_\_\_\_ 8. Protons, neutrons, and electrons are evenly distributed inside an atom.