

**Note-taking
Worksheet****Atoms, Elements,
and the Periodic Table****Section 1 Structure of Matter**

A. **Matter**—anything that has _____ and takes up space.

1. The **atom**—a small particle that makes up most types of _____
2. Lavoisier introduced the **law of conservation of matter**—matter is neither _____ nor _____, but only changes form.
3. Before Lavoisier, people used to think _____ could appear and disappear.
4. Dalton introduced an early atomic _____.
 - a. _____ are too small to be seen by human eye.
 - b. Each type of matter is made of _____ of atom.
5. Thomson discovered that atoms are made of even smaller _____.
 - a. _____—tiny, negatively charged particles with mass
 - b. Proposed that an atom was a ball of _____ with electrons embedded in it
6. _____ suggested a new model of the atom.
 - a. _____—the positively charged central part of the atom
 - b. **Protons**—the _____ charged particles in the nucleus
 - c. Electrons are scattered in the mostly empty space around the _____.
7. Chadwick introduced _____—particles that come from the nucleus and have no charge
8. _____ Model—Electrons are so small and fast that they move in a cloud.

Section 2 The Simplest Matter

A. **Elements**—matter made up of _____ kind of atom

1. There are _____ known elements.
2. 90 _____ occurring elements, plus _____ elements—made by scientists