**Guided Reading: Chapter 4** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Pg. 102-109 Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions:** Read pg. 102-109 and answer the questions that follow.

**Topic: Early Models of the Atom**

1. All matter is composed of:
2. Atoms are:
3. What contribution did **Democritus** make to atomic philosophy?
4. Based on experiments and observations, John Dalton developed an atomic theory that stated:

1.

2 .

3.

4.

1. Atoms are very small! The radii of most atoms falls within the range of:
2. Despite their small size, individual atoms are observable with:

**Topic: Structure of the Atom**

1. Most of Dalton’s theory is accepted today. However, one important change is:
2. There are 3 types of subatomic particles. They are:
3. What is the charge on an electron?
4. Who discovered electrons and how were they discovered?
5. What is the charge of a proton?
6. What is the charge of a neutron?
7. What experiment helped us understand that the atom is mostly space but has a small dense nucleus?
8. What is the atomic nucleus?
9. On pg. 109: Describe the nuclear atom?