

## Guided Reading Chapter 8 Section 1

1. \_\_\_\_\_ is anything that has mass and takes up space.
2. Who were the first philosophers to propose that atoms existed? What time period was this?
3. Who were some other scientists who contributed to the idea that atoms existed and what did they believe?
4. A(n) \_\_\_\_\_ is the smallest bit of matter that is pure and can't be broken down into any other smaller substance by physical or chemical means.  
  
a) atom                      b) element                      c) compound                      d) particle
5. A(n) \_\_\_\_\_ is the single smallest particle of an element that retains the chemical identity of that element.  
  
a) atom                      b) element                      c) compound                      d) particle
6. A compound is a substance that contains \_\_\_\_\_ or more different elements joined chemically, and has the same composition throughout.
7. What is a molecule?
8. Sketch the pictures of an element, compound, and mixture.
9. How is matter classified?
10. What is the difference between a heterogeneous and a homogeneous mixture?