

Classifying Matter

(Chapter 7, section 1, pp. 231-234)
(Chapter 13, section 1, pp. 454-457)

Name _____
Period _____

- _____ is anything that has mass and takes up space.
- An _____ is the basic particle from which all elements are made.
- Complete the following table:

Part of an Atom	Charge	Location in the atom

- Atoms that have _____ numbers of _____ differ in their _____.
- A _____ is matter with a composition that is always the same.
- An _____ is a pure substance that consists of just one type of atom.
 - Each type of _____ contains a _____ number of _____ in its nucleus.
- Some elements usually exist in groups. When an element exists in pairs it is called a diatomic molecule. List the names **and** chemical formulas of the seven elements that occur as diatomic molecules. Research using the "Diatomic Elements" link in portaportal.
- A _____ is a pure substance containing atoms of two or more different elements chemically bonded together:
- A _____ is the combination of symbols and numbers that represents a compound.
 - What is the chemical formula for the compound carbon dioxide? What does the chemical formula tell you about this compound?

10. A _____ tells the number of atoms of an element in a compound.

a. What does it mean if a chemical symbol has no subscript?

11. Using carbon dioxide as an example, explain how a compound can have different properties than the elements that compose it.

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12. A _____ is two or more substances that are physically blended but not chemically bonded together.

13. A _____ is a mixture in which the individual substances are not evenly mixed and you can see the different parts

a. What are examples of this kind of mixture?

14. A _____ is a mixture in which two or more substances are so evenly mixed that you can't see the different parts.

a. _____ is another name for a homogeneous mixture.

b. What are examples of this kind of mixture?

15. Describe the two important differences between compounds and mixtures.