

Chapter 2: Basic Review Worksheet

1. What is *matter*? Of what is matter composed?
2. What is an *element* and what is a *compound*? Give examples of each.
3. Explain the differences among a *gas*, a *liquid*, and a *solid*.
4. What is meant by the term *chemical property*? What is meant by the term *physical property*?
5. What is meant by the term *chemical change*? What is meant by the term *physical change*?
6. What are *alloys*? Provide an example.
7. What is a *mixture*? Provide an example.
8. What is a *solution*? Provide an example.
9. What is meant by the term *pure substance*?
10. What is the difference between a *homogeneous mixture* and a *heterogeneous mixture*?
11. What are some of the techniques by which mixtures can be resolved into their components?

Chapter 2: Review Worksheet

1. What are some of the different types of matter? How do these types of matter differ and how are they the same?
2. What is the difference between a chemical property and a physical property?
3. What is the difference between a chemical change and a physical change?
4. Classify each of the following as a chemical or physical property or change.
 - a. Table salt dissolves in water.
 - b. Water boils at 100°C.
 - c. You bake a cake.
 - d. A tree is struck by lightning.
5. Explain the difference between an *element* and a *compound*.
6. What is the difference between a *mixture* and a *solution*?
7. Are all elements pure substances? Are all compounds pure substances?
8. Are mixtures pure substances? Are solutions pure substances?
9. Explain the processes of *filtration* and *distillation* in your own words.

Chapter 2: Challenge Review Worksheet

1. List three physical properties and three chemical properties that are not in your text.
2. List three physical changes and three chemical changes that are not in your text.
3. Are all physical changes accompanied by chemical changes? Are all chemical changes accompanied by physical changes? Explain.
4. Are all compounds composed of molecules? If so explain why. If not, provide an example.
5. What does it mean to say that a compound has a *constant composition*?
6. Would samples of a particular compound here and in another part of the world have the same composition and properties?
7. Mixtures do not have constant composition. Give an example of a mixture you encounter often that has a variable composition.
8. Are all solutions mixtures? Are all mixtures solutions? Explain.
9. Provide an example of each of the following mixtures and state whether it is a homogeneous or heterogeneous mixture. Support your answer.
 - a. A mixture of a solid and a liquid.
 - b. A mixture of two gases.
 - c. A mixture of two liquids.
 - d. A mixture of two solids.
10. Are methods used to separate mixtures physical or chemical changes? Explain.