

Chemistry Grade 5 Quiz

Teacher's Answer Key

1. What is a saturated solution? (a solution in which the maximum amount of something has been dissolved)
2. What is the difference between a physical change and a chemical change? Name two examples of each.
(Answers may vary. A physical change happens when the molecules stay the same, but the volume and/or shape change, like wadding up tissue or cutting paper. A chemical change rearranges the molecules and atoms to create new molecule combinations, like a campfire or the formation of rust.)
3. How does soap work? (A soap molecule is like a snake. It has a head that loves water, called the hydrophilic end. It also has a tail that loves oil, fat, grease, and dirt, which is called the hydrophobic end. The hydrophilic end dissolves in water and the hydrophobic end wraps itself around fat and oil in the dirty water, cleaning it off your dishes.)
4. What is the difference between atoms, molecules, and polymers? (Atoms are the smallest bits of matter, made of a nucleus and its electrons. Molecules are groups of atoms. Polymers are long chains of molecules all stuck together.)
5. What does a catalyst do? (It speeds up the rate of a reaction.)
6. What does it mean if a compound is thermochromic? (It changes colors depending on the temperature.)
7. What is the difference between red and blue litmus paper? (Red tests for a base, and blue for an acid)
8. Think about the desalination experiment. Did this experiment involve a physical change or a chemical change? Explain. (A physical change. The water was boiled and then condensed, but it was still plain water. It just changed state and was separated from the salt, not altered into something different.)
9. What is chemiluminescence? Name one example of chemiluminescence. (When light is produced in a chemical reaction, but not heat. For example, a glow stick.)
10. Somebody wrote a secret message using phenolphthalein. Describe how you would read this message. (Swab it with a base, turning the phenolphthalein pink.)

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9. What is chemiluminescence? Name one example of chemiluminescence.

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