Bill Nye: Chemical Reactions

Vocabulary

chemical reaction	compound	element	endothermic	energy	exothermic

Use the word bank above to fill in the blanks.

1. A(n) _____ is matter that is composed of 2 or more different kinds of atoms.

2. A chemical reaction in which energy is released/given off is _____.

3. A(n) _____ is a process in which substances are changed into other substances.

4. Matter that is composed of only 1 kind of atom is a(n) _____.

5. _____ is the ability to do work and/or transfer heat.

6. A chemical reaction in which energy is absorbed/taken in is _____.

Knew/New

Write down 3 things you <u>already knew</u> about chemical reactions that were confirmed through watching the video:

1.

2.

3.

Write down 3 <u>new</u> things that you learned from watching the video:

1.

2.

3.

Episode Guide

1. Chemicals can react to form new _____.

2. Chemical reactions happen when _____ hook together.

3. Energy is given off during a chemical reaction because _____ are combining with other _____.

4. During the "Try this" experiment, we see the students using vinegar and salt to clean old copper pennies. The copper gets stripped away and the pennies look new again. Explain why you think this happens.

_____

6. _____ & _____ are both dangerous by themselves, but when they react together they form table salt.

7. Pyrotechnician is a name given to people who work to create _____.

8. In another experiment, we see kids blow up a balloon by mixing together vinegar and baking soda. When the kids touch the blown up balloon, it is _____ to the touch. This means that the reaction is endothermic or exothermic

9. When someone gets hurt playing sports, often times a cold pack is used for the injury. The cold pack takes up more energy than it gives off and it gets very _____ to the touch. This means that the reaction taking place is endothermic or exothermic

10. How do you know baking a cake is a chemical reaction? _____

11. There are _____ naturally occurring elements.

12. If elements are in the same group on the periodic table, what does that tell you? _____

True or False

1. When something burns, heat & light are given off.	T	or	F
2. Your stomach growling is an example of a chemical reaction.	T	or	F
3. Water is 1 part hydrogen and 2 parts oxygen.	T	or	F
4. When baking a cake, a chemical reaction takes place.	T	or	F
5. Everything is made of chemicals.	T	or	F
6. Alfred Nobel invented dynamite.	T	or	F
7. You should always wear safety goggles when working with chemicals.	T	or	F
8. Sodium chloride is better known as sugar.	T	or	F
9. A substance can feel a little warm if the reaction is endothermic.	T	or	F
10. When developing film, red light doesn't affect the picture.	T	or	F
11. A cold pack gets cold because the reaction takes more energy than it gives off.	T	or	F
12. If chemicals behave similarly, they are grouped together on the periodic table.	T	or	F
13. Chemical reactions happen when protons link atoms together.	T	or	F
14. When vinegar and baking soda react, oxygen is produced.	T	or	F
15. Fireworks are not an example of chemical reactions.	T	or	F