Chemical Reactions Stations Lab

Directions: As you rotate through the different stations, you will see evidence of chemical reactions. Explain how you know that a chemical change has happened. Then answer any questions that follow.

Station 1

How Do you know a Chemical Change Has Happened?

1. Name 3 common uses for ammonium nitrate?

A.

B.

C.

- 2. What is the chemical formula for ammonium nitrate?
- 3. How many Nitrogen molecules are in ammonium nitrate?
- 4. How many Oxygen molecules are in ammonium nitrate?
- 5. How many Hydrogen molecules are in ammonium nitrate?

Station 2

How Do you know a Chemical Change Has Happened?

- 6. Explain what an endothermic reaction is.
- 7. Explain what an exothermic reaction is.

Station 3

How Do you know a Chemical Change Has Happened?

- 8. What does the word hygroscopic mean?
- 9. What compound is found in limestone, chalk, marble and the shells of snails & sea creatures?
- 10. What gas is released from this reaction?

Station 4 How Do you know a Chemical Change Has Happened?				
ПОМ	Do you know a Chemical Change Has Happenea:			
11. What type o	of compounds smell like rotten eggs?			
12. What gas is	being formed by mixing iron with an acid?			
13. Name two p	places in mother nature that produce iron sulfide?			
A.	В.			
14. What is the	acid name for vinegar?			
Station 5				
Hou	Do you know a Chemical Change Has Happened?			
15. What type o	of reaction is when two different materials react in solution to form an insoluble product?			
16. Only	compounds in solution can form a precipitate.			
Station 6	De ver brow a Chemical Charac Une Umpaned?			
поч	Do you know a Chemical Change Has Happened?			

How Do you know a Chemical Change Has Happened?

Station 7

Video: The Science of Glow Sticks 18. Glowsticks are powered by a process called ______. 19. The hydrogen peroxide solution in the vial of a glow stick is called the _____ 20. What does the hydrogen peroxide react with? 21. _____temperatures will make the glow stick glow brighter but for a shorter time. Video: What Makes some Animals Glow? 22. What two chemicals create bioluminescence? 23. Give two examples of why animals use bioluminescence. A. B. Station 8 Video: 7 Signs a Chemical Reaction is Taking Place https://www.youtube.com/watch?v=q76UNX3otvA 24. List the 7 signs a chemical reaction is taking place (in the order they appear in the video) 1. 5. 2. 6. 3. 7. 4. 25. Fill in the blanks on the following statements from the video:

changes are difficult to reverse. changes are usually easier to

reverse. In chemical changes atoms are rearranged into _____ substances.

Identifying Physical or Chemical Changes: Look at the pictures on the reference sheet. Identify each picture as a Chemical or Physical change by putting a C in the box for Chemical and a P in the box for Physical.

1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.

Station 9

b. c. d. e. f. g.

32. What cross cutting concept (CCC) did you use in the lab?

33. What science and engineering (SEP) practice did you use in the lab?

	How Do you know a Chemical Change Has Happened?				
	26. What animal is this reaction named after?				
2	27. What colors does it change to?				
2	28. What type of reaction is the chameleon reaction?				
2	29. What two words combine to make up the word "redox?"				
3	30. New compounds are formed when one chemical takes from another chemical.				
Que	stions:				
3	31. List the evidence of a chemical change that you observed.				