

Lesson Two: Power Point of the 6 Major Types of chemical Reactions

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Ch8 Chemical Reactions

Note to self: get cows

Focus: for your team to teach everything about this type of reaction

Step One: Mr R will count you off by 5. All 1's one team, all 2's another team.

This is JUST for THIS activity.

Step Two: decide which reaction your team wants to do:

Single replacement, double replacement, combustion, synthesis/combination, decomposition

Step Three: We now start our power point slide show:

1. Name your reaction
2. Find a cartoon example of your reaction....googleand explain it
3. Relate this example to dating in high school...draw it and explain it
4. Find a very clear chemical word example and then wrote the symbols under the words, explain this to us
5. Find another chemical symbol equation of this reaction that is UNBALANCED....then show us how to balance it
6. What are some rules that go with your reaction? How do we KNOW it is a XYZ reaction? What do I look for?
7. Have a animated visual reaction or a you tube video of your reaction type? This will take some searching!
8. Find 3 simple labs that you think the instructor might have materials for , print them and ask the instructor which lab is possible to do in class.
9. Once you know the lab, you must make a rubric just like your instructor does:

Prelab questions (and underline the important answers)

Data table, set up and blank

Case Study Questions and link to the case study.

Give the lab and rubric to the instructor to Xerox.

YOU now have to introduce, teach the lab and grade it! Your students cannot put names on the paper, just bench number.

10. Find a sheet of practice problems where we take words, change them to chemical symbols, and we balance the reaction. Print this so the instructor can Xerox it, then decide on a fun way to

teach this. Are you doing board races? Do you want to bring in candy for the students? Are you making a game?

11. Make a 10 question quiz about all parts of your presentation, give it to the instructor to xerox and you grade it. Remember, no student names, just table numbers.

To help get you started.....

<http://misterguch.brinkster.net/6typesofchemicalrxn.html>

<http://chemistry.about.com/od/chemicalreactions/a/reactiontypes.htm>

<http://www.wisc-online.com/Objects/ViewObject.aspx?ID=ap13004> (animations)

http://www.files.chem.vt.edu/RVGS/ACT/notes/Types_of_Equations.html examples, practice problems

<http://library.thinkquest.org/2923/react.html> general info

Save your power point to the S drive under fledogar

Predicting Products of a Chemical Reaction

Type of Reaction	General Equation	Reactants	Products	Example
Combination	$R + S \rightarrow RS$	2 elements or 2 compounds	single compound	$2Mg(s) + O_2(g) \rightarrow 2MgO(s)$
Decomposition	$RS \rightarrow R + S$	binary or tertiary compound	2 elements (binary) or 2 or + elements and/or compounds (tertiary)	$2HgO(s) \rightarrow 2Hg(l) + O_2(g)$
Single- Replacement	$T + RS \rightarrow TS + R$	element and a compound *activity series	different element and a new compound	$2K(s) + 2H_2O(l) \rightarrow 2KOH(aq) + H_2(g)$
Double- Replacement	$R^+S^- + T^+U^- \rightarrow R^+U^- + T^+S^-$	2 ionic compounds *cations exchange	2 new compounds *precipitate formed	$K_2CO_3(aq) + BaCl_2(aq) \rightarrow 2KCl(aq) + BaCO_3(s)$
Hydrocarbon Combustion	$C_xH_y + (x + y/4)O_2 \rightarrow xCO_2 + (y/2)H_2O$	Oxygen and a compound of C_xH_y	CO_2 and H_2O	$CH_4(g) + 2O_2(g) \rightarrow CO_2(g) + 2H_2O(l)$