

DOWNLOAD PDF SINGLE AND DOUBLE REPLACEMENT REACTIONS WORKSHEET

Chapter 1 : Double replacement reactions (double displacement) (article) | Khan Academy

WORKSHEET ON SINGLE & DOUBLE REPLACEMENT REACTIONS Predict the products. Write formulas & balance each reaction. If there is no reaction, then just put NO RXN.

Chemical Reactions Having completed the prior unit on atomic structure and the naming of elements and compounds, the students are now ready to start looking at how atoms and molecules can rearrange themselves during chemical reactions. The focus of this chapter is primarily on the basic mechanics of writing out and predicting the results of chemical reactions. Starting with the relatively simple synthesis and decomposition reactions, we work our way up through single replacement, double displacement, and combustion. Students will need to copy of a periodic table and polyatomic ions reference list to be able to complete these worksheets. All of the basic parts of a chemical reaction are covered by this worksheet. Students will identify the reactants, products, subscripts, and coefficients. Included is information on the state of matter notation that indicates whether each substance is a solid, liquid, gas, or aqueous solution. Chemical reaction, product, reactant, subscript, coefficient, state of matter notation, solid, liquid, gas, aqueous solution, diatomic elements. Predicting the products and balancing chemical reactions is the main skillset that students need to have leaving this chapter. I start teaching this with synthesis reactions, because they are one of the simplest and most straightforward forms of chemical reactions. This worksheet provides a few examples of how to predict products of synthesis reactions using oxidation states as well as showing students how to balance. Chemical reactions, synthesis reactions, balancing equations, predicting products, oxidation state. This worksheet is a good followup to the synthesis reactions worksheet, because all of the same rules and ideas apply, simply in reverse. I keep the problems in this assignment simple by either focusing on simple binary ionic compounds or giving students the names of the products in advance. Chemical reactions, decomposition reactions, balancing equations, predicting products, oxidation state. Single-replacement reactions involve reacting a lone element usually a metal with a compound, resulting in the cations switching places. Students will learn to use the activity series for the first time as part of this worksheet, as they identify when reactions will and will not occur. Students will need to copy of an activity series chart to be able to complete this assignment Essential concepts: Chemical reactions, single replacement reactions, balancing equations, predicting products, oxidation state. Double-displacement reactions involve the switching of cations between two compounds. A simplified solubility table is included as part of this assignment. Chemical reactions, double-displacement reactions, balancing equations, predicting products, oxidation state, precipitate, solubility, aqueous solution. Combustion reactions are the last type of chemical reaction covered, and for many students, one of the most difficult to balance. The products are always the same -- carbon dioxide and water vapor, but the coefficients for balancing these equations often become double-digits. Chemical reactions, combustion reactions, balancing equations, predicting products. In this episode of Mythbusters, they debunk a Braniac video viewable on Youtube that demonstrates an explosion produced by dropping cesium into a bathtub of water that is powerful enough to actually crack the bathtub. As they perform the experiment, the Mythbusters illustrate two types of chemical reactions. First, dropping an alkali metal in water results in a single-replacement reaction, releasing hydrogen gas. The hydrogen gas then reacts with oxygen in a synthesis reaction, forming water and releasing a lot of energy in the form of heat and light. This is also a good video to introduce the idea of the periodic law -- the alkali metals will react more violently with water as you move further down the group. Chemical reactions, single-replacement reactions, synthesis reactions, alkali metals, periodic law. This segment of Mythbusters focuses on combustion. Specifically, is using a cell phone enough to initiate the combustion of gasoline, resulting in a fire or explosion at a gas station? The answer is no, as there is a level of activation energy needed to initiate combustion that simply is not present in the electromagnetic emissions of a cell phone. The Mythbusters do learn that the most common cause of gas station fires is static electricity discharge from people exiting their car. Chemical reactions, combustion, activation energy. Once the

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instruction for the unit is completed, students can complete this study guide to aid in their preparation for a written test. The study guide is divided into two sections: The vocabulary words can be found scattered throughout the different instructional worksheets from this unit.

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Chapter 2 : Single Displacement Reactions Worksheets - Printable Worksheets

1 Replacement Worksheet-Chem CHEMISTRY REPLACEMENT REACTION WORKSHEET DISCRPTION During double replacement, the cations and anions of two different compounds.

These compounds generally do not dissolve in water are insoluble: NaCl is by the same rule we just quoted , but what about SrSO₄? Photo courtesy of Chojj, [http: Example 5](http://example.com) Will a double-replacement reaction occur? If so, identify the products. Now we consider what the double-replacement products would be by switching the cations or the anions namely, CaBr₂ and KNO₃. However, the solubility rules predict that these two substances would also be soluble, so no precipitate would form. Thus, we predict no reaction in this case. If we assume that a double-replacement reaction may occur, we need to consider the possible products, which would be NaCl and Fe OH 2. NaCl is soluble, but, according to the solubility rules, Fe OH 2 is not. Therefore, a reaction would occur, and Fe OH 2 s would precipitate out of solution. No reaction; all possible products are soluble. Key Takeaways A single-replacement reaction replaces one element for another in a compound. The periodic table or an activity series can help predict whether single-replacement reactions occur. A double-replacement reaction exchanges the cations or the anions of two ionic compounds. A precipitation reaction is a double-replacement reaction in which one product is a solid precipitate. Solubility rules are used to predict whether some double-replacement reactions will occur. Exercises What are the general characteristics that help you recognize single-replacement reactions? What are the general characteristics that help you recognize double-replacement reactions? Assuming that each single-replacement reaction occurs, predict the products and write each balanced chemical equation. Use the periodic table or the activity series to predict if each single-replacement reaction will occur and, if so, write a balanced chemical equation. Assuming that each double-replacement reaction occurs, predict the products and write each balanced chemical equation. Use the solubility rules to predict if each double-replacement reaction will occur and, if so, write a balanced chemical equation.

Chapter 3 : Writing, Balancing, and Predicting Chemical Reactions Worksheets and Lessons | blog.quintoa

Worksheet #5: Double-Replacement Reactions In these reactions, all you do is look at the names of the reactants, and "switch partners". Just be sure that the new pairs come out with the positive ion named first, and paired with a.

Chapter 4 : Types of Chemical Reactions: Single- and Double-Displacement Reactions

Worksheet #4: Single-Replacement Reactions Step 1 - Write the formulas of the reactants on the left of the yield sign Step 2 - Look at the Activity Series on page to determine if the replacement can happen.