



Chemistry Content Standards:

Standard 3a: Students know how to describe chemical reactions by writing balanced equations.

- 11.2.1 Describe the five general types of reactions
- 11.2.2 Predict the products of the five general types of reactions

Lab # 12: The Stoichiometry of S'Mores

Pre-Lab: **10 Min.** provide students with the Stoichiometry of S'mores student handout. Introduce them to the lab activity by reviewing the student handout. Explain to students that in this activity each of the S'mores ingredients chocolate square © Marshmallow (M) and graham cracker (G) represent an element on the periodic table. Graham crackers are in pairs, thus G₂.

Lab: **30 Min.** students should follow procedures outlined in the Stoichiometry of S'mores student handout.

Post Lab: **10 Min.** Perform with students a sample calculation, if needed. Collect handouts and review answers to post-lab and extension questions. Answer any student questions pertaining to lab activity. Once the laboratory activity is complete, student may eat their S'mores and remaining ingredients.

Clean Up: **10 Min.** students will clean up all left over items from lab, wash burners and clean lab station.

Homework: None