



## FARADAY AT HOME: CONTINUING FARADAY FROM THE “U” TO THE YOUTH

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There is a considerable amount of research on the importance of STEM (Science, Technology, Engineering and Math) Education at an early onset age. Yet recent attention has been brought to light in the United States regarding the lack of students pursuing STEM disciplines and degree programs. With this in mind, in order to have a comprehensive approach to STEM education, science must be taken past the front doors of educational facilities and towards the homes of young students.

The objective of the following compilation of experiments is to demonstrate the tangible nature of science, meaning that the first laboratory a child steps into can be their own kitchen. The University of Utah (otherwise known as the “U”) participates in a science series known as the Faraday Lectures, this is a public set of lectures given during the holiday season in order to “educate and entertain audiences of all ages.” With the attention the Faraday Lectures has captivated, it is possible to expand Faraday from the University level into that of a program titled, “Faraday at Home” where members of the audience, more notably children or parents thereof, can go home and conduct their own interesting and dynamic experiments. With multiple examples of “at home” experimentation for children, the differentiation of these experiments is their reliance on a noteworthy research institution as their access point.

The collection to be used for “Faraday at Home” consists of ten experiments, all of which range from Agricultural and Food Chemistry to Inorganic Chemistry to Geochemistry. Primarily these experiments were chosen because of their ability to outline important topics in chemistry that can often be misconstrued from an early age as determined by professionals in the educational field, both collegiate and secondary while providing interactive and sometimes taste-worthy measurements capable of being done in the kitchen in order to truly bring Faraday from the “U” to the youth. These exercises could be altered or changed in multiple ways so that students can test what would affect their experimentation and address aspects of the scientific method. Additionally the experiments were chosen based on their supplies and whether or not they could be readily found in a home. Only a few experiments would require going to find supplies when not available in a local grocery store. Once these two objectives were met, it was important for the experiments to demonstrate the diversity of Chemistry by classifying each as a particular field or fields in chemistry so that if students grew exceedingly interested in one type of experiment they could learn more about the field that the science they did applies to.

