Curriculum Units by Fellows of the National Initiative 2011 Volume V: Chemistry of Everyday Things

## I Got the Power! Misconceptions of Recycling Batteries

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This unit is designed for intermediate students in grades 5 through 7. This unit is focused on responsible recycling of batteries. Batteries are carelessly thrown away daily and ultimately are dumped into landfills. The million dollar question is what toxins and hazards do they leach into our environment? Despite the government's classifications of household batteries as non-hazardous, studies show that there are many toxins to be concerned about. So who is going to educate our students to recycle responsibly? Education is the number one tool for success. Providing our students with research-based facts, can enable our communities and assist in the recycling efforts.

The science literacy of our students may well determine the path they choose to follow in the future. Thus, by allowing my students to participate in science-based decisions, we can hope to diminish the harmful impact of pollution of our air and water in our community. The recycling of batteries and understanding of some of the misconceptions of improper disposal of batteries, I believe, can have a significant impact on our local environment. We can empower our students, through background knowledge and education, to use rechargeable batteries as a simple alternative choice from the single use household batteries that power their electronic devices. The unit will teach the students the simple chemistry of what a battery is, how it works, its history, applications, and the misconceptions of recycling batteries. The students will be actively involved with hands-on, minds-on investigations that will provide an in-depth thorough understanding. Each lesson is followed by a hands-on investigation lab that provides students opportunities to explore the concepts further.

(Developed for General Science, grade 6; recommended for Physical Science and Chemistry, grades 5-7)

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