



Environmental Demonstration

Lesson Source(s)	U.S. Environmental Protection Agency – www.epa.gov <i>The Consumer's Handbook for Reducing Solid Waste</i>
Grade Level	Suggested grades K-8
Abstract	The basis of this demonstration is to stress the importance of recycling, reusing, reducing, and responding to the ever-growing amount of garbage generated everyday in American homes and businesses. Wright-Patterson Air Force Base is no exception. Very much like a small city or large town, the base generates a great deal of trash. From paper to plastics, cardboard to aluminum cans it all gets recycled at the WPAFB Recycling Facility. Learn the many methods the recycling center uses to decrease the amount of solid waste that would normally end up in a landfill.
Objectives	<ul style="list-style-type: none"> ▪ Students will discuss the importance of solid waste management. ▪ Students will identify the different ways to recycle, reuse, reduce, and response to solid waste issues ▪ Students will observe recycled products
Pre-Visit	_____ Complete the <i>W.O.W! Photo Release Form</i>
Photo/Video	Photo(s):
Post-Visit	_____ Complete the brief post-visit survey http://www.surveymonkey.com/s/WOWDemoSurvey
Best Teaching Practices	<ul style="list-style-type: none"> ▪ Issue-Based Learning ▪ Learning Cycle ▪ Hands-on/Minds-on Learning ▪ Discussion ▪ Probing Questions
Standard Alignment	As a result of the demonstration, students should develop an understanding of <ul style="list-style-type: none"> ▪ Science and Technology in Society ▪ Risks and Benefits ▪ Environmental Quality ▪ Populations, Resources, and Environments
Content Knowledge	Americans generate millions of tons of trash in the form of wrapping material, bottles, boxes, cans, grass clippings, furniture, clothing, phone books, and much, much, more. Durable goods (tires, appliances, furniture) and nondurable goods (paper, certain disposable products, clothing) account for several million tons of the solid waste stream. Container and packaging waste is a significant component of the nation's waste stream as well. This material includes glass, aluminum, plastics, steel and other metals, paper and cardboard. Yard trimmings such as grass clippings and tree limbs are also a substantial part of what we throw

	<p>away. In addition, many relatively small components of the national solid waste stream add up to millions of tons. One percent of the nation's waste stream can amount to about two million tons of trash each year.</p> <p>Across the country, many individuals, communities, and businesses have found creative ways to reduce and better manage their trash through a coordinated mix of practices that includes source reduction. Simply put, source reduction is waste prevention. It includes many actions that reduce the overall amount of toxicity of waste created. Source reduction can conserve resources, reduce pollution, and help cut waste disposal and handling cost.</p> <p>Source reduction is a basic solution to the garbage glut: less waste means less of a waste problem. Because source reduction actually prevents the generation of waste in the first place, it comes before other management options that deal with trash after it is already generated. After source reduction, recycling and composting are the preferred waste management options because they reduce the amount of waste going to landfills and conserve resources.</p> <p>Individual consumers can substantially reduce solid waste by following these basic principles:</p> <ul style="list-style-type: none"> ➤ Reduce the amount of trash discarded ➤ Reuse containers and products ➤ Recycle use recycled materials and compost ➤ Respond to the solid waste dilemma by reconsidering waste-producing activities and by expressing preferences for less waste <p>It is far better to reduce the toxicity and amount of solid waste initially than to cope with it after it has been created. Through source reduction, recycling, and composting, many environmental benefits can be realized. So remember the four "Rs"...</p>
Safety	The W.O.W! Wizard shares the technique of vermicomposting with the students. Red Wiggler worms are shown and examined. At the conclusion of the demonstration hands must be washed and desks/tabletops wiped down.
Applications	<p>Career Fields: Environmental Engineering, Resource Conservation, and Vermiculture</p> <p>Everyday: Students are encouraged to use the recycling bins and receptacles found at home, school, and in their community</p>
Assessment	<p>Observe student participation in the activity</p> <p>Observe student participation in discussion</p>
Other Considerations	<ul style="list-style-type: none"> ▪ U.S. Environmental Protection Agency Curriculum and Activities - www.epa.gov/osw/education/teach_curric.htm ▪ <i>Sort Mania</i> - www.epa.gov/osw/education/kids/games/bingame2/index.html <p>This game teaches students about recycling. Drag the recyclables off the conveyor belt and put them in the correct recycling bins.</p> <ul style="list-style-type: none"> ▪ <i>Recycle City</i> - www.epa.gov/recyclecity/ <p>This interactive website allows students to explore how the residents of "Recycle City" reduce, reuse, and recycle their waste.</p>
Skillsheet(s)	n/a