

Solid Waste Lessons

(Available to the following school districts: Carlisle, Franklin, Kings, Lebanon, Little Miami, Mason, Springboro, Waynesville)

To schedule a class, call Suzanne Geisler, M.Ed. at (937) 750-3430

Recycle Rex (grades pre K-adult) A 12 minute Disney video is followed by a discussion of what materials are recyclable in Warren County. Examples of recycled products will be shown. Renewable and nonrenewable natural resources will be discussed. (45 minutes)

Earth and Space: Kindergarten #2, #3 First grade #1, #2, #3 Fifth grade #5, #6 Seventh grade #2 Tenth grade #5, #6, #7 Eleventh grade #11, #12, #13, #14 **Life Sciences:** Tenth grade #18, #19 Eleventh grade #11 **Physical Sciences:** Kindergarten #2 First grade #1, #3, #4 Fourth grade #3, #4 Sixth grade #5, #6, #7, #8 **Science and Technology** Kindergarten #2 First grade #1, #3 Fifth grade #1, #3 Sixth grade #2 Seventh grade #2 Eleventh grade #2 **Ways of Knowing:** Kindergarten #3 **Citizenship Rights and Responsibilities:** Kindergarten #3 Third grade #1 Fourth grade #1, #2, #3 Tenth grade #1 Eleventh grade #1, #6 Twelfth grade #7 **Economics:** Fourth grade #1 **Social Studies Skills and Methods:** First grade #6 **Geography:** Fifth grade #9



Recycling Dichotomous Key (grades 3-8): Students will sort bags of trash using a dichotomous key. (30 minutes)

Earth and Space: Fifth grade #5, #6 Eleventh grade #11, #12, #13, #14 **Life Sciences:** Eleventh grade #11 **Physical Sciences:** Fourth grade #3, #4 **Science and Technology:** Fourth grade #2 Fifth grade #1 Sixth grade #2 Tenth grade #2, #3 Twelfth grade #2 **Scientific Inquiry:** Fourth grade #2 Fifth grade #1 Sixth grade #3 **Scientific Ways of Knowing:** Fourth grade #1, #2 Fifth grade: #2 Twelfth grade #10, #11 **Citizenship Rights and Responsibilities:** Third grade #1 Fourth grade #1, #2 **Economics:** Fourth grade #1 Sixth grade #2 **Geography:** Fifth grade #94

Four Pounds of Trash! (grades pre K-3) Students will help fill a container with four pounds of clean trash. A scale will be used for accuracy. Students will discover that each child in the United States produces four pounds of trash every day. Students will infer how much trash the class makes everyday. Reducing, reusing and recycling will be discussed and modeled. (30 minutes)

Earth and Space: Kindergarten #2 First grade #1, #2, #3 **Physical Sciences:** Kindergarten #1, #2, #3 First grade #1 **Science and Technology:** Kindergarten #1, #2 First grade #1, #3 Third grade #2 **Scientific Inquiry:** Kindergarten #1, #2, #6 second grade #5, #9 **Ways of Knowing:** Kindergarten #2 **Citizenship Rights and Responsibilities:** Kindergarten #3, Third grade #1 **Economics:** First grade #1 **Social Studies Skills and Methods:** First grade #6

Paper Making (grades K-8): Students will make a rough recycled paper sheet from a paper pulp mixture. Students will be able to describe physical changes required for the recycling of paper. (60 minutes)

Earth and Science: First grade #1, #2, #3 Fifth grade #5, #6 **Life Sciences:** Fourth grade #3 Fifth grade #6 Seventh grade #6 **Physical Sciences:** First grade #1, #3, #4, #7, #8, #9 Fourth grade #1 Sixth grade #3, #5, #6, #8 **Science and Technology:** Kindergarten #1, #2 First grade #1, #3, #4, #7 Fifth grade #1, #3 Seventh grade #2 Eighth grade #2 **Citizenship Rights and Responsibilities:** Kindergarten #3 Third grade #1 Fourth grade #1 **Economics:** First grade #1 Fourth grade #1 **Social Studies Skills and Methods:** First grade #6 **Geography:** Fifth grade #9



See next page for more Solid Waste Classes

Recycling Plastic (grades 3-8):

Students will participate in the heteroform recycling of plastic. Students will be able to describe the physical changes in matter required for the recycling of plastic, glass and metals. Students will be able to explain why recycling plastic is difficult. A short video on plastic recycling may be shown if desired. (40 minutes)

Earth and Space: First grade: #1, #2 Fifth grade: #5, #6 **Life Sciences:** Fifth grade #6 **Physical Sciences** Kindergarten: #2, #3 First grade #1, #3, #4 Fourth grade #1, #2, #3, #4, #5 Sixth grade #2, #3, #4, #5, #6, #8 Seventh grade #1 **Science and Technology:** Kindergarten #3, #4, #5 First grade #1, #3 Fifth grade #1, Sixth grade #2 **Scientific Inquiry:** Kindergarten #3, #4, #5 First grade #2, #3 Second grade #4, #10 **Citizenship Rights and Responsibilities:** Third grade #1, Fourth grade #1, #2 **Geography:** Fifth grade #9

Composting with Worms! (grades 3-7):

Students will explore the food web in a worm compost bin. Students will handle worms and learn the importance of decomposers, the difference between organic and inorganic garbage and the nitrogen cycle. (30 minutes)

Processes that shape the earth: K #2, First grade #3, fourth grade #10 **Earth Systems:** First grade #1, Third grade #4, #5, #6, Fifth Grade, #5 #6, Seventh Grade: #2, **Characteristics and structure of Life:** K: #1, First grade @# 1, #2 #3, #4 , Second grade, #1,#2, #3, #5, #6, **Diversity and interdependence of life:** K #6 Third grade, #2, Fifth grade #1.#2#3. #4. #5. #6 Seventh Grade: #2. #3. #5



Trading Resources (grades 3-8):

A discussion of renewable and nonrenewable resources is followed by a simulation activity to produce a greeting card. This requires the trading of plentiful and scarce resources. Follow up discussion requires students to make analogies, inferences and read a chart. (45 minutes)

Earth and Space: First grade #1, #2 **Science and Technology:** Kindergarten #2 First grade #2, #3, #7 Fifth grade #1 Sixth grade @2, #3, #5 Seventh grade #2, #4 Eighth grade #2, #3 **Scientific Ways of Knowing:** Kindergarten #2 **Scientific Inquiry:** Third grade #3 **Physical Sciences** Sixth grade #8 **Citizenship Rights and Responsibilities:** Third grade #1, Fourth grade #1, #2 **Geography:** Fifth grade #9 **Economics:** Third grade: #2, #3 Fourth grade #1, #2, #3, #4, #6 Fifth grade #1, #2, #5, #6, #7 Sixth grade #2, #4, #5

Packaging Game (grades 3-8):

Students participate in a simulation game in which they will become metal, plastic, glass or paper. A roll of the die will decide if they will be recycled, become litter or will be landfilled. Students will discover that about 70% of recyclable materials are landfilled, 24% is recycled and 5% becomes litter. (45minutes)

Earth and Space: Fifth grade #5, #6 Seventh grade #2 **Life Sciences:** Fifth grade #6 Seventh grade #5 **Science and Technology:** Fifth grade #1, #3 Sixth grade #2 Seventh grade #2 **Scientific Inquiry:** Fourth grade #2 **Citizenship Rights and Responsibilities:** Third grade #1, Fourth grade #1, #2 **Geography:** Fifth grade #9 **Economics:** Fourth grade #1 Sixth grade #2

Super Sleuths! (grades 3-8):

Students work in cooperative groups in a mystery game to discover which of five recyclable materials is their group's identity. Students make inferences, analyze data and organize information in order to solve the mystery. (30 minutes)

Earth and Space: Fifth grade #5, #6 **Life Sciences:** Fifth grade #6 **Physical Sciences:** Fourth grade #3, #4 Sixth grade #5, #6, #8 **Science and Technology:** Fifth grade #1, #3 Sixth grade #2 Seventh grade #2 **Citizenship Rights and Responsibilities:** Third grade #1, Fourth grade #1, #2 **Geography:** Fifth grade #9 **Economics:** Fourth grade #1 Sixth grade #2

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