



*"Your Partner in Protecting the Earth"*

## ENVIRONMENTAL EDUCATION PROGRAMS

*All programs are FREE and correlate with  
Indiana Academic Standards*

Serving Franklin, Jefferson, Jennings, Ohio,  
Ripley, Scott, and Switzerland Counties.

## Indiana Solid Waste Management District Education Curriculum Model

In accordance with SECTION 40. IC 13-20-17.5-6, the Indiana Department of Environmental Management (IDEM) developed a curriculum model for the Indiana Solid Waste Management Districts (ISWMD) to implement for their environmental education programming. The ISWMD compiled curriculum that are classified into five categories:

***Landfill and Incineration***

***Renewable and Non-Renewable Natural Resources***

***Pollution***

***Composting and Vermicomposting***

***Household Hazardous Waste***

Each curriculum includes the corresponding Indiana Academic Standards for science, grades Kindergarten through Fifth Grade. The presentations are designed to help students recognize the importance of the environment, teach them their role in the environment, and recognize how their choices impact their environment.

Compiled by Indiana Solid Waste Management District Educators in conjunction with the Association for Indiana Solid Waste Management Districts and the Indiana Department of Environmental Management.

**To schedule a program, please contact:**

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## BASIC 3 R's (Reduce, Reuse, Recycle)

Grade(s): K-4

**Correlation to State Standards:** SCI.K.1.1, SCI.K.1.2, SCI.1.1.1, SCI.1.4.1, SS.1.2.5, SS.1.3.9, SS.1.4.1, SS.1.4.5, SCI.2.4.2, SCI.3.2.5, SCI.4.2.5

**Description/Purpose:** This program teaches students about the importance of the 3R's, and provides definitions and examples of each concept to insure understanding of how they, as children, can easily play a part. It also teaches students about the implementation of these concepts at home and at school.

Duration: 30 minutes

## RECYCLING SUPERHEROES

Grade(s): K-1

**Correlation to State Standards:** SCI.K.1.1, SCI.K.1.2, EL.K.1.2, EL.K.1.3, EL.K.1.4, EL.K.1.12, EL.K.1.22, EL.K.2.1, EL.K.2.2, EL.K.2.3, EL.K.2.5, EL.K.3.1, EL.K.3.3, EL.K.3.5, EL.K.7.1, EL.K.7.2, EL.K.7.3, SS.K.2.4, SS.K.2.5, SS.K.3.7, SCI.1.1.1, SCI.1.4.1, EL.1.2.1, EL.1.2.3, EL.1.2.5, EL.1.2.6, EL.1.2.7, EL.1.3.1, EL.1.3.3, EL.1.3.4, EL.1.3.5, EL.1.7.1, EL.1.7.2, EL.1.7.3, SS.1.2.4, SS.1.2.5, SS.1.3.9, SS.1.4.2

**Description/Purpose:** Become a Recycling Superhero! This program makes a fun and interactive activity highly educational in order to introduce students to the concept of recycling. Students will learn how to recycle by sorting through a pile of solid waste and separating materials into the correct bins. Students will learn that waste materials end up somewhere; they do not just "go away". The entire class will also receive a recycled content promotional "gift" if you choose.

Duration: 45 minutes to 1 hour

## LANDFILL COOKIE

Grade(s): 3-5

**Correlation to State Standards:** SCI.3.4.2, SCI.4.2.5, SCI.4.2.6, SCI.4.3.4, SCI.4.5.2, SCI.5.3.2

**Description/Purpose:** The purpose of this activity is to introduce students to the waste stream and to emphasize conservation benefits of personal decisions as well as the importance of the 3 R's Reduce, Reuse, Recycle.

Duration: 45 minutes

## EDIBLE LANDFILL

Grade(s): 4-5

**Correlation to State Standards:** SCI.4.2.4, SCI.4.2.5, SCI.4.2.6, EL.4.1.3, EL.4.1.7, EL.4.7.1, EL.4.7.2, EL.4.7.8, EL.4.7.15, SS.4.2.6, MA.4.1.4, MA.4.2.1, MA.4.2.2, MA.4.2.12, SCI.5.3.1, SCI.5.3.2, EL.5.1.4, EL.5.1.6, EL.5.7.1, EL.5.7.2, EL.5.7.3, EL.5.7.12, MA.5.1.4, MA.5.2.1, MA.5.2.6

**Description/Purpose:** This program is designed to be a completely interactive learning experience. Participants will learn the differences between dumps, Solid Waste Disposal Facilities, and incinerators as final destinations for trash. They will also learn about the contents of the waste stream and the role they play in waste disposal and diversion. A primary focus will be placed on why it is important to use waste alternatives to reduce the amount of waste destined for landfills and incinerators.

Duration: 45 minutes to 1 hour

## HOW DO THEY DO THAT ?

Grade(s): K-5

**Correlation to State Standards:** SCI.K.1.1, SS.K.4.1, SS.K.4.2, SS.K.4.3, SCI.1.1.1, SCI.1.3.4, SCI.1.3.5, SS.1.2.4, SS.1.3.9, SS.1.4.1, SS.1.4.5, SCI.2.4.2, SS.2.2.5, SS.2.5.1, SCI.3.2.5, SCI.3.2.6, SCI.3.4.2, SS.3.4.2, SS.3.4.8, SCI.4.2.4, SCI.4.2.5, SCI.4.2.6, SCI.4.3.4, SCI.5.1.3, SCI.5.1.4

**Description/Purpose:** This program teaches students the importance of renewable and non-renewable natural resources to our Earth. Students will also learn how reducing, reusing, recycling, rethinking and buying post-consumer products they can help protect our natural resources, save energy, save money and reduce pollution.

Duration: 45 minutes - 1 hour

## COFFEE CAN PAPERMAKING

Grade(s): 2-5

**Correlation to State Standards:** SCI.2.4.2, SS.2.4.1, SCI.3.2.6, SS.3.4.1, SCI.4.2.4 SCI.4.2.5, SCI.4.2.5, SCI.5.1.4, SCI.5.4.2,

**Description/Purpose:** This lesson teaches students about the paper **recycling process**, and what it means to “**close the loop**”. It also stresses the importance in changing the way we use trees as a **renewable natural resource**, a resource of which we can get more. Using common household paper, students will tear, blend, and press old paper to create their own piece of paper. This simple process allows students to understand the paper recycling process on a personal level and a smaller scale. Each student will take home their own handmade paper!

Duration: 45 minutes

## RENEWABLE IS DO-ABLE

Grade(s): 2-5

**Correlation to State Standards:** SCI.3.2.5, SCI.3.2.6, SCI.4.2.4, SCI.4.2.5, SCI.4.2.6, SCI.5.3.1, SCI.5.3.2

**Description/Purpose:** This lesson creates awareness of natural resources and the differences between **renewable and nonrenewable resources**. Students will gain an awareness for the importance of using renewable resources for energy and manufactured products. During this activity students will: identify natural resources and distinguish if they are non-renewable or renewable, think critically about an environmental issues, and discover the environmental impact that mining causes to the Earth.

Duration: 40-45 minutes

## LITTER BUGS

Grade(s): K-2

**Correlation to State Standards:** SCI.K.1.1, SCI.K.1.2, EL.K.1.2, EL.K.1.3, EL.K.1.4, EL.K.1.12, EL.K.1.22, EL.K.2.1, EL.K.2.2, EL.K.2.3, EL.K.2.5, EL.K.3.1, EL.K.3.3, EL.K.3.5, EL.K.7.1, EL.K.7.2, EL.K.7.3, SS.K.2.4, SS.K.2.5, SS.K.3.7, SCI.1.1.1, SCI.1.4.1, EL.1.2.1, EL.1.2.3, EL. 1.2.5, EL.1.2.6, EL.1.2.7, EL.1.3.1, EL.1.3.3, EL.1.3.4, EL.1.3.5, EL.1.7.1, EL.1.7.2, EL.1.7.3, SS.1.2.4, SS.1.2.5, SS.1.3.9, SS.1.4.2, SCI.2.4.2, SCI.2.4.3, EL.2.2.2, EL.2.2.5, EL.2.2.6, EL.2.2.9, EL.2.3.2, EL.2.3.6, EL.2.3.7, EL.2.7.1, EL.2.7.2, EL.2.7.3, SS.2.2.5, SS.2.4.2

**Description/Purpose:** This lesson introduces the concept of litter as pollution. It also introduces recycling as a way to reduce trash and conserve resources. It teaches students about the importance of being good stewards of the Earth through discussion of litter as a type of pollution and how it affects the feelings and actions of people as well as the environment.

Duration: 45 minutes

## WHO POLLUTED THE RIVER ?

Grade(s): K-5

**Correlation to State Standards:** SCI.K.3.1, SCI.1.3.1, SCI.1.3.3, SCI.1.3.4, SCI.1.4.1, SCI.2.3.2, SCI.2.1.3, SCI.2.1.2, SCI.3.2.5, SCI.3.2.6, SCI.4.2.2, SCI.4.2.6, SCI.4.3.2, SCI.4.3.4, SCI.5.3.1

**Description/Purpose:** Through an interactive story (available in the extra materials at the end of this lesson plan) students learn how the increase in human population and land use have caused many of our rivers to become polluted. If your local area doesn't have a river, draw a comparison between the river and the story and nearby body of water in your area. This activity demonstrates that, just as we each contribute to the problem, we must also be part of the solution. At the end of the program students will be able to: list the major pollutants in our nation's waterways; draw connections between individual action and results at the community level; develop strategies for minimizing and counteracting environmental problems.

Duration: 45 minutes

## FREDDY FISH

Grade(s): K- 5

**Correlation to State Standards:** SCI.K.3.1, SCI.K.3.2, SCI.K.3.3, SCI.1.3.1, SCI.1.3.3, SCI.1.3.4, SCI.1.3.5, SCI.2.2.5, SCI.3.2.5, SCI.3.2.6, SCI.4.2.4, SCI.4.2.5, SCI.4.2.6, SCI.5.3.1, EL.K.1.22, EL.K.2.3, EL.K.3.3, EL.K.3.5, EL.K.4.3, EL.K.4.6, EL.K.5.1, EL.K.7.1, EL.K.7.2, EL.K.7.3, EL.1.2.4, EL.1.3.3, EL.1.5.2, EL.1.7.1, EL.1.7.2, EL.1.7.3, EL.1.7.5, EL.1.7.7, EL.1.7.10, EL.2.1.6, EL.2.2.4, EL.2.2.5, EL.2.2.6, EL.2.3.2, EL.2.3.5, EL.2.3.7, EL.2.5.7, EL.2.7.1, EL.2.7.2, EL.2.7.3, EL.2.7.6, EL.2.7.12, EL.3.1.3, EL.3.3.8, EL.3.5.7, EL.3.7.1, EL.3.7.2, EL.3.7.3, EL.3.7.11, EL.4.1.1, EL.4.7.1, EL.4.7.2, EL.4.7.15, EL.4.7.16 EL.5.1.1, EL.5.7.1, EL.5.7.2, EL.5.7.3

**Description/Purpose:** This lesson is intended to raise awareness of water pollution. Students will learn hands on about water pollution and its effect on the environment and ecosystems as the story about a fish named Freddy travels downstream. Objectives: Students will describe a fish habitat and explain how contaminants, including mercury, pharmaceuticals, and other pollutants such as Household Hazardous Waste, can enter the water and affect ecosystems through carelessness, **illicit discharge** (discharge into a storm drain system this is not composed entirely of stormwater), and **run-off** (that flows from rain or snowmelt, over land). Students will identify pollution and possible sources. Students will learn how to properly dispose of potentially harmful items at the local Household Hazardous Waste collection facility, if your county has one. Students will give examples of ways to prevent aquatic pollution.

Duration: 30-40 minutes

## COMPOST STEW

Grade(s): K-2

**Correlation to State Standards:** SCI.K.1.1, SCI.K.3, EL.K.1.22, EL.K.2.2, EL.K.2.3, EL.K.7.1, EL.K.7.2, SS.K.2.4, SS.K.2.5, MA.K.3.1, SCI.1.1.1, SCI.1.1.2, SCI.1.2.1, SCI.1.2.4, SCI.1.3.4, SCI.1.4.1, EL.1.2.3, EL.1.2.5, EL.1.2.7, EL.1.7.1, EL.1.7.10, EL.1.7.2, EL.1.7.3, SS.1.2.4, SS.1.2.5, SS.1.3.9, SS.1.4.2, SCI.2.1, EL.2.2.4, EL.2.2.5, EL.2.7.3, EL.2.7.4,

**Description/Purpose:** This interactive program is an introduction to the Earth's natural method of recycling yard waste, food waste and other organics. Using a rhyming story book, it introduces students to the merits of waste reduction through composting as well as the benefits of composting in green gardening and fertilizing. Participants witness compost in action, and work together to create a healthy compost system through an interactive model. Tip: see-through composting bins can be purchased online. These education tools allow for students to see the composting stages.

Duration: 45 minutes

## SQUIRMY WORMY COMPOSTING MADE EASY

(Vermicomposting)

Grade(s): K-5

**Correlation to State Standards:** SCI.K.3.1, SCI.K.3.2, SCI.1.2.4, SCI.1.3.1, SCI.1.3.2, SCI.1.3.3, SCI.1.3.4, SCI.1.4.2, SCI.1.4.3, SCI.2.3.1, SCI.2.3.2, SCI.2.1.4, SCI.3.2.5, SCI.3.2.6, SCI.4.3.1, SCI.4.2.5, SCI.4.2.6, SCI.4.3.2, SCI.4.3.4, SCI.5.3.1, SCI.5.3.2

**Description/Purpose:** By bringing a working **vermicompost** bin into the classroom, students will learn the importance and benefit of decomposers in a natural environment. This program also introduces an interactive and educational organic waste disposal and reduction option to the classroom, thus reiterating the importance of the 3R's (reduce, reuse, recycle). Students will learn the following about vermicomposting: worm anatomy, digestive and reproductive systems of the worm, how worms help decompose food waste/ yard waste in nature and in the bin, worm habitat, and dietary requirements, as well as seeing the vermicomposting process in action. Classes can also set up a working vermicompost bin and monitor it year-round if desired.

Duration: 45 minutes

## HAZARDOUS HOUSE OF HORRORS

Grade(s): K-2

**Correlation to State Standards:** SCI.K.1.1, SCI.K.1.2, SS.K.3.7, SCI.1.1.1, SS.1.2.4, SS.1.3.9, SCI.2.4.2,

**Description/Purpose:** To teach students what household hazardous waste is, how to identify it and safe handling/disposal of these products.

Duration: 45 minutes

## HOUSEHOLD HAZARDOUS WHAT ?

Grade(s): 4-5

**Correlation to State Standards:** SCI.4.2.6, SCI.4.3.4, SCI.5.3.1

**Description/Purpose:** Students will identify a number of household products and learn how they are used as well as how to sort. They will sort items into the various types of household hazardous waste. Students will discuss how the improper use and disposal can affect people in their community and environment as well as learn alternatives.

Duration: 1 hour

## GOT HOUSEHOLD HAZARDOUS WASTE ?

Grade(s): 2-4

**Correlation to State Standards:** SCI.2.4.2, SCI.3.2.6, SCI.4.2.5, SCI.4.2.6

**Description/Purpose:** This is a two-part program. It works best to explain to students initially that they will be learning about household hazardous waste through two activities. Part one teaches students about warning words on household products. They will learn how labels explain possible hazards and the safe storage and use of HHW products. Part two demonstrates safer alternatives to several of the household hazardous waste products used in the home. These two sections together create a cohesive and highly interactive program. Point out that people should keep chemicals in their original containers.

Duration: 45 minutes to 1 hour