



ISRI Recycling Collection K-5

Designed in partnership with The Institute of Scrap Recycling Industries (ISRI), students explore the benefits and challenges of sustainable recycling through a variety of activities ranging from physics and chemistry to engineering and human impacts, while becoming informed citizens and careful consumers.

Champions of Recycling

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- **Activity 1: An Invitation to Recycling:** Consider ways to reuse and recycle paper.
- **Activity 2: Bag It:** Explore community to recycle plastic bags.
- **Activity 3: Bounce:** Explore properties of and uses for rubber.
- **Activity 4: Test Your Metal:** Examine properties of metal and challenges of recycling.
- **Activity 5: Deconstruction:** Deconstruct electronics and understand recycling difficulties.
- **Activity 6: Nature Recycles Too:** Compare how nature recycles to human recycling.

Cross-Curricular Connections

Language Arts: Reading Nonfiction, Key Ideas and Textual Support, Vocabulary Building, Research and Writing

Literature Selections: *The Lorax*, *The Legend of King Arthur*, *One Plastic Bag*

Math: Calculating Averages,

Social Studies: Environment and Society, Economics

Art: Paper Making, Drawing, Bracelet Making, Sculpture, Making Posters

Also supports SEPS 1-8

Grades K- 5 Science Content & Engineering Standards

K.ESS.4 Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. (Activities 1-6)

1.ESS.4 Develop solutions that could be implemented to reduce the impact of humans on the land, water, air, and/or other living things in the local environment. (Activities 1-6)

2.PS.1 Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. (Activities 2,3,4,5)

2.PS.4 Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. (Activities 2,3,4)

K-2.E.1 Pose questions, make observations, and obtain information about a situation people want to change. Use this data to define a simple problem that can be solved through the construction of a new or improved object or tool. (Activities 1,2,3 4)

4.ESS.4 Develop solutions that could be implemented to reduce the impact of humans on the natural environment and the natural environment on humans. (Activities 1-6)

5.ESS.3 Investigate ways individual communities within the United States protect the Earth's resources and environment. (Activities 1-6)

5.LS.1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. (Activity 6)

3-5.E.1 Identify a simple problem with the design of an object that reflects a need or a want. Include criteria for success and constraints on materials, time, or cost. (Activity 6)

3-5.E.2 Construct and compare multiple plausible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. (Activities 2,6)

3-5.E.3 Construct and perform fair investigations in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved. (Activity 6)