

2012 SKIP EARTH WEEK SCIENCE PROJECT COMPETITION

Including two divisions
High School and Middle School

THE ENVIRONMENT, RECYCLING AND SOLID WASTE

Goal of the Event: Students will identify a specific environmental problem or potential solution in the area of the Environment, Recycling and Solid Waste. Each student will be given the opportunity to investigate, design and display a project which demonstrates their topic. Projects will be judged by a panel of environmentalists, industrialists and educators. The projects with the highest scores following judging will be eligible for cash prizes.

PRIZES TO BE AWARDED

	<u>First Place</u>	<u>Second Place</u>	<u>Third Place</u>
High School (Grades 9 - 12)	\$300	\$200	\$100
Middle School (Grades 5 - 8)	\$300	\$200	\$100

Entry Forms are available from each County High and/or Middle School or at
our website www.skiplitter.org

DESIGNING YOUR PROJECT

Choose a topic for investigation from the fields of the Environment, Recycling and Solid Waste. You may choose to investigate an existing problem and determine why this is a current problem; or you may choose to investigate one of many proposed solutions for the future of the environment. You may choose to investigate any environmental topic from a historical or societal perspective, or from a personal perspective. Recommendations for topics may be found in this package.

Once you have chosen a topic and a title for your research, the development of your project should include the following information, in written form:

- A. The Issue**
Include background information on your subject area.
- B. The Research or Project Question**
Indicate the problem, or the probable solution which you would like to address through the development of your project.
- C. The Method of Investigation**
Detail what your project will test, identify, or display. Discuss the methods used to investigate your project and how you collected data.
- D. The Data Gathered**
Include all record-taking techniques and the resultant data from your investigation.
- E. How You Analyzed the Data Gathered**
Organize your data and use to form a conclusion to your project. Make graphs, charts and/or figures to collate data in a readable form.
- F. Your Conclusions from the Project**
State what your project demonstrated. Did your data match your expected outcome, as determined at the start of your project? What implications might these results have on the future of the environment? How can you apply this in your daily life?

Your report accompanying the project should be double-spaced and MUST include your name, school, grade and project topic.

JUDGING OF PROJECTS

All Projects must be accompanied by a completed entry form, which is due April 9, 2012 (NO DEADLINES EXTENSIONS WILL BE GRANTED). The completed projects must be delivered to the Gymnasium of the Pennsylvania State University, Schuylkill Campus from 5:00 p.m. until 7:00 p.m. on Monday, April 16, 2012.

Projects will be judged on April 19, 2012 by a panel of environmentalists, education specialists and members of the industrial community. Tear down will be on Thursday, April 19, 2012 from 8:00 - 9:00 p.m. The criteria will be:

- A. CREATIVE ABILITY 30%**
 - 1. Originality of the Idea
 - 2. New Methods Used
 - 3. Knowledge and Application

- B. SCIENTIFIC THOUGHT 50%**
 - 1. Presentation of Problem
 - 2. Evidence of Careful Investigation
 - 3. Accuracy of Observation

- C. TECHNICAL SKILL 20%**
 - 1. Building Skill
 - 2. Exhibit is Self-Explanatory
 - 3. Proper Emphasis to Important Items

EARTH WEEK 2012

RECOMMENDATIONS FOR PROJECT TOPICS

Recycling

Plastics

Glass

Paper

Aluminum

Steel

Used Motor Oil

Tires

Antifreeze

Old Cars

Large Appliances

Recycling Programs Nationwide

The Process of Bottle to Bottle

Plastics Recycling

New Products from

Recycled Plastics

The Use of Newspaper in

Animal Bedding

The Use of Newspaper in

Home Insulation

Making Recycled Paper

Solid Waste, a Historical

Perspective

Energy Savings through

Recycling

Energy Conservation

Model Curbside Recycling

Renewable and Non renewable

New Sources of Energy

Recycling and Environmental

Solutions from Europe and Japan

Solid Waste in Third World

Countries

Solid Waste Education

Product Packaging

Composting

Biodegradability

Photosynthesis

Biological Effects of Pollution

Ozone Depletion

New Pollution

Control Equipment

Sludge in Agriculture

Pyrolysis of Sludge/Tires

New Steel Manufacturing

Processes

Modern Landfills

Resource Recovery

Pelletization for Incineration

The Solid Waste Industry

Impact of Government

Regulations on Economy

Additional Sources of Information:

PA Department of Environmental Protection (DEP)

Environmental Protection Agency

NO PROJECT MAY INCLUDE DECOMPOSING OR LIVE ANIMAL COMPONENTS

PLEASE PUT ME ON YOUR REFRIGERATOR!!!

SCHEDULE OF COMPETITION

APRIL 16	5:00 p.m. - 7:00 p.m.	Participants set up projects
APRIL 17	9:00 a.m. - Noon	Projects are judged
APRIL 17	6:00 p.m. - 8:00 p.m.	Projects are displayed
APRIL 18	10:00 a.m. - 2:00 p.m.	and can be viewed
APRIL 18	6:00 p.m. - 8:00 p.m.	by the public
APRIL 19	7:00 p.m. - 8:00 p.m.	Awards Ceremony
APRIL 19	8:00 p.m. - 9:00 p.m.	Tear down of projects in the Gymnasium

WINNERS WILL BE ANNOUNCED AT THE PRESENTATION MADE ON APRIL 19, 2012 AT 7:00 P.M. AT THE GYMNASIUM. TEAR DOWN WILL BE IMMEDIATELY FOLLOWING THE CEREMONY.