



Waste-To-Energy Incineration*

Activity M.u/H.1

GRADE LEVELS: 7 - 12

OBJECTIVES:

Upon completion of this lesson, your students will be expected to:

- Describe waste-to-energy incineration
- Explain the differences between waste-to-energy incineration and open burning

MATERIALS:

Student Handouts 1 - 5

Student Handout 3 from Activity M.a/H.a "What Is Solid Waste"

OVERVIEW:

This lesson will explain waste-to-energy incineration and describe how it differs from simple burning of trash. The technical aspects of waste-to-energy incineration, air pollution controls, energy production benefits and reduction of solid waste volume will also be addressed.

PROCEDURE:

1. Distribute and discuss Student Handout 1. Then have your students complete the worksheet on waste-to-energy values, Student Handout 2.
2. Distribute and discuss Student Handout 3. Then have your students complete the worksheet on waste-to-energy incineration, Student Handout 4.

EXTENSIONS:

Take your students on a field trip to a local incinerator if there is one nearby. Have your students complete Student Handout 5 during the visit. Invite an incineration expert from your EPA regional office of incineration to talk about local waste-to-energy incineration. Additionally, many industrial plants operate waste-to-energy incinerators. Invite a representative of a local plant to give your class a presentation on the plant's incinerator.

*Source: Kraft General Foods Environmental Institute Solid Thinking about Solid Waste