



## Political Choices\*

Activity H.e

GRADE LEVELS: 9 - 12

### **OBJECTIVE:**

The learner will be able to examine five alternatives available to deal with solid waste and establish a suitable strategy for his/her community.

### **ACTIVITY IN BRIEF:**

Learners will work in five small groups to investigate and present a strategy for waste management in their community using a simulation activity.

### **MATERIALS:**

marker pencils, newsprint

### **VOCABULARY:**

City Council, County Board of Supervisors, recycle, landfill, incineration, curbside, recycling, pre-cycling production, drop-off recycling, curb side recycling, precycling

### **PROCEDURE:**

Participants will be grouped into five equal groups. They will be given one card with a form of solid waste management and some advantages and disadvantages of that practice. (There are other advantages and disadvantages that they will need to discover.) They will be told that they are to present a case to the City Council or the County Board of Supervisors supporting the solid waste management strategy their city or county should retain or move toward. Each group will guard its background information and seek ways of discrediting other strategies due to cost, environmental impact, or other researched criteria.

Participants will be provided materials and publications with pertinent information. Information may be procured from the county waste management authority, the landfill operator, city, State Department of Natural Resources, solid waste publications, etc., which will have useful research materials. Two class periods may be used for researching a presentation for the City Council or County Board. Midway through the second period each group will be told they must select one of their members to serve on the five member City Council or County board. The Council or County Board will then determine information they will consider to make their decision.

Each group will give a three minute report. Visuals should be used and each member should have some responsibility in making the presentation.

The learners will be told that their community has a population that approximates the size of the community where most of them live, and the description below should be visually shown.

There are as follows:

25 households for every 100 people

1 place of business for each 25 people

10 industries, manufacturing plants, etc., for every 200 people, i.e., grain elevator, feed mills, plastic plant, small engine assembly, slaughtering plant, etc.

1 supermarket for each 2,000 people

1 hospital for each 50,000 people or less

4 nursing homes for each 2,000 people or less

5 multi-dwelling apartment complexes for each 1,000 people

1 school district similar in size to their school district

\*The manufacturing plants and industries may reflect the nature of such plants in the learners' area

### **Activity:**

Simulation is an effective means of involving students in group process to examine scenarios useful to resolve a problem. It provides opportunity for all participants to become involved and serves as a conduit used in political science to examine information and make a decision upon the information provided. Simulation provides the learner with a competitive challenge to scientific research data and persuades his/her colleagues to make a decision regarding an actual or perceived problem.

In this activity, the group will examine a variety of strategies its community could employ to manage solid waste. The activity also advances a variety of methods communities throughout the country are now using, which learners may encounter, if and when they move elsewhere.

Community size, distance from recycling markets, culture and traditions are important. What works in one community may not be suitable for another, therefore it becomes important to explore as many of the advantages and disadvantages as possible to arrive at a suitable solution.

The cards provided each group reflects only some of the pros and cons of the practice. Encourage use of the telephone, interview practices, and other devices that access additional information. It should be noted the information on the card is not always accurate and does make assumptions. Also, information from any source directly involved in the practice is likely to be biased in favor of that practice and likely to downplay the disadvantages. Each inaccuracy or assumption is indicated with an asterisk. The presenter may wish to white this out before duplicating the cards. Also, the 'NIMBY' effect (Not In My Back Yard) is not mentioned.

### **LANDFILL-TAXPAYER ASSOCIATION GROUP**

### **Card 1**

Currently this process is used by the community of Midstate

Some benefits of landfills:

- a. Land suitable for landfills is available at a reasonable price.\*
- b. Landfills can be sealed to minimize groundwater contamination.
- c. Landfills will always be needed because all forms of solid waste cannot presently be economically recycled.\*
- d. Landfills are the least costly means of disposing solid waste
- e. Landfills could be mined at a later date if resource recovery becomes a necessity.\*

- f. Landfills provide archaeologists of the future with a storehouse of information to interpret cultures.
- g. Landfills of some form have been used by humankind from day one.
- h. Landfills have a comparatively low cost of operation for taxpayers.
- i. Landfills encourage people not to dump in other places.\*

Some problems with landfills:

- a. They do fill up.
- b. Recycling is limited if the public believes waste can be put in a landfill.\*

As a member of Taxpayer Association, do research to find other positive or negative aspects on landfill operations to justify your position to continue this practice

## **INCINERATION**

### **Card 2**

Some benefits of incineration

- a. Most waste materials do not need to be placed in landfills.
- b. Waste materials are reduced in volume to a comparatively small amount of ash.
- c. Incineration can be done on one central site and often can benefit more than one community.
- d. Incineration can often be shown to be cost effective.\*

Some disadvantages of incineration:

- a. Air pollution.
- b. Ash needs to be buried.
- c. This process does not encourage recycling.
- d. Landfills are still necessary.

As a member of the Incineration-Taxpayer Association do research to find other positive or negative aspects of incineration operations to justify your position to continue this practice.

## **ENERGY SOURCE PRODUCTION**

### **Card 3**

Some benefits of energy source production:

- a. Most waste materials do not need to be placed in landfills.
- b. Waste materials are reduced in volume to a comparatively small amount of ash.
- c. Incineration can be done on one central site and often can benefit more than one community.
- d. Energy production can often be shown to be cost effective.
- e. Steam can be generated from electrical energy production.

Some disadvantages of energy source production:

- a. Outlets for electrical production and steam heat must be located.
- b. Air pollution.
- c. Ash needs to be buried.
- d. This process does not encourage recycling.

As a member of the Energy Source Production Taxpayer Association do research to find other positive or negative aspects of energy source production operations to justify your position to continue this practice.

## **VOLUNTARY DROP-OFF RECYCLING**

### **Card 4**

Advantages:

- a. Community members are provided an opportunity to minimize solid waste going to the landfill.
- b. Employment opportunities are provided for individuals sometimes difficult to place in employable positions.
- c. People are encouraged to examine alternatives prior to making a purchase, including selection of a less packaged item, or not purchasing at all.
- d. Recycling promotes the use of materials for some other beneficial purpose.

e. Recycling allows reentry of useful resources into the marketing system thereby lessening dependency upon virgin materials.

f. Environment benefits because of fewer impacts.\*

Disadvantages:

a. An extensive community education program is required.

b. Recycling is not free and may be labor intensive.

c. Recyclable items may not always be marketable, or the markets may be considerable distance away.

d. Landfills or some other disposal system may still be required.

e. Some people may not want to change their lifestyle to begin recycling.

As a member of Voluntary Drop-Off Recycling-Taxpayer Association do research to find other positive or negative aspects of voluntary drop-off recycling operations to justify your position to continue this practice.

## **CURBSIDE RECYCLING**

## **Card 5**

Advantages:

a. Most items will be recycled.\*

b. Considerably less volume of materials will be landfilled.

c. Yard waste compaction may be accomplished with curbside recycling.

d. People are given responsibility for items they may purchase and will give greater attention to accumulating items that potentially may reach the waste stream.\*

Disadvantages:

a. People are forced into a lifestyle they may not choose.

b. It may be more costly to ship and handle recyclable materials.

As a member of the Curbside Recycling-Taxpayer Association do research to find other positive or negative aspects of curbside recycling operations to justify your position to continue this practice.

There are many ways of disposing of waste, but whatever the practice may be, there is no such place as 'away.' It must go someplace, and the benefits to society need to be considered for whatever practice is used. Usually it is more economical to recycle a product than to produce from virgin materials, and generally this practice has a less negative impact on the environment. Many current practices encourage the "throw away" strategy, but is that the best practice in the long run? Ideally, thought and consideration should be given to the product considered for purchase in the first place. Questions regarding suitable alternatives should be raised and exposed in the area of precycling. That is to say, if disposal is a problem, do I need this item, and what could I do to displace this problem? this raises interesting questions and possibilities.

The City Council should meet while the small groups are completing their reports and establish the criteria they will use to decide their choice. They should also elect a chairperson to conduct the meeting.

After the reports have been given and the City Council retreats to make its decision, the group should assemble a list of items they think the Council considered to make their decision. After the Council returns with its decision, the Council list and group list should be examined as a means of arriving at closure for the presentations and activity.

\*Source: Iowa Department of Education Iowa Clean SWEEP