

HISTORY OF WASTE

Grades:

3 – 4

Time Allotments:

Teacher preparation: 5 minutes plus whatever time is needed to gather props (optional)

Lesson and activity: 30 minutes for introduction and actual performance

Practice time during class before performance (optional)

30 minutes for closure activities

Vocabulary:

Landfills

Recycling

Resource Recovery/Incinerators

Solid Waste

Transfer Station

Waste Disposal

Integrated Curricular Areas and Corresponding Core Curriculum Content Standards:

Science: **5.10:** (G4) A1, B1

Social Studies: **6.1:** (G4) A1&4

Language Arts: **3.1:** (G1) D1, 5&6 (G4) D1

3.5: (G3) D1 (G4) D1, 2, 4&5

Fine Arts: **1.2:** (G4) C1&3

Content Objectives: Students will be able to –

1. Demonstrate their understanding of how humans managed solid waste throughout history based on the class performance of “The Throwaway Three” skit;
2. Describe various waste disposal methods during certain periods of history; and
3. Describe environmental impacts of solid waste disposal in the present and in the past.

Process Objectives: Students will –

1. Assist with organizing the performance of the skit;
2. Perform or conduct public speaking as part of the skit;
3. Work cooperatively with small and large groups; and
4. Organize information on a timeline.

Materials:**For teacher’s presentation:**

◇ Flipchart paper, markers and tape

For each student: One copy of “The Throwaway Three” skit

Optional Props for the Skit:

- Animal skins (fake fur can be used)

- Roman helmet
- Bag of trash
- Pilgrim hat
- Coonskin hat
- Piece of leather
- Engineer's cap
- Handmade sweater (rough wool sweater)
- Two machine-made sweaters
- Lab coat
- Nylon stockings
- Plastic bags and plastic containers
- Perma-pressed shirt
- TV dinner tray and box
- Toy car
- Indian headband
- Old blanket
- Cola bottle
- Orange peels
- Bottle made of clear glass
- Flower

Anticipatory Set:

- Conduct an introductory discussion with students to determine their knowledge of current waste disposal practices and waste materials and their awareness of how waste was disposed of in the past. Discussion should focus on the following questions and responses should be documented (and saved) on pieces of flipchart paper:
 - *How do we dispose of waste here at school? How about at your homes? Where can it go?*
 - *How do you think waste was picked up and disposed of in the early 1900s?*
 - *How about in the early 1800s?*
 - *How about over a thousand years ago?*
 - *How does actual trash items and materials differ during these earlier spans of time?*
- Explain to students that they will be reviewing and performing in a skit in order to learn more about how trash was handled by people historically

Teacher's Presentation or Modeling:

- Distribute copies of "The Throwaway Three" skit to students. Allow students time to read the entire skit
- Students and teacher agree to the assignment of parts and/or other roles needed to prepare for, as well as to perform, the skit. Consider if props, scenery and costume items will be used

Guided and Independent Practice:

- Students can practice their parts at home or during class
- Props and costumes are gathered (optional)
- Students perform the skit

Closure:

- Revisit the questions and responses focused on during the anticipatory set and add more detail from students regarding earlier time periods
- Divide the class into small groups and have each group create a simple timeline that reflects the progression of waste management throughout history
- Have the small groups share their timelines with the class. Ask them what new information they learned or new ideas they had regarding trash and waste disposal practices by performing the skit

Assessment:

- Participation in group discussion and responses to questions from teacher;
- Participation in the performance;
- Participation in small groups to develop the timeline; and
- Comprehensiveness and completeness of information related to the timeline.

Extension:

- Students can work individually or in small groups to research a specific time period in terms of the types of waste that was created and how waste was transported and disposed of; or, students can investigate how waste was handled historically in communities and/or counties local to the school

Resources:

- “The Throwaway Three” skit is part of *A-way with Waste – A Waste Management Curriculum for Schools*, produced by the Washington State Department of Ecology’s Litter Control and Recycling Program and currently available through the agency’s Air Quality Program. Permission was received to use the skit for this lesson. To access this curriculum supplement visit <http://www.ecy.wa.gov/biblio/97200.html>

The Throwaway Three

(a skit)

Subjects: Social Studies, Language Arts, Drama

Grades: 4-6

Teaching Time: Two 40-Minute Sessions

Focus: Litter Control, Recycling



Rationale

We can't throw away our trash. There simply is no such place as "away." Care is always required to prevent our trash from having bad effects on our lives.

We can't burn it all. Most of the burning requires expensive and often elaborate controls, to prevent air pollution. There is always ash or something left over which must be buried.

We can't bury it all. Not enough places are available. Besides, plastics and modern synthetics do not rot when buried.

We are literally running out of some natural resources, so that any form of disposal of certain goods is self-defeating.

Learning Objective

Students will:

- Become aware that historical methods of getting rid of solid waste (throw it, bury it, or burn it) won't solve modern urban garbage problems.

Materials

- Skit script
- Props

Pre & Post Test Questions

List three waste disposal problems today's society must solve which did not exist 100 years ago.

Explain how this skit helped you find ways to solve your waste problems.

Who were litter makers in this skit?

Learning Procedure

- 1 Prepare materials as described in the skit script on the following sheets. Encourage students to make props and costumes from recycled or reused materials.
- 2 Work with students to develop a production which could be performed for other classes, for parents, or for a group in the community.

Bibliography

Bradley, Fay. "Throwaway Three." Lessons from Litter. Atlanta: Atlanta Clean City Commission, 1979.

U.S. Environmental Protection Agency. Let's Recycle: Lesson Plans for Grades K-6 and 7-12. Washington, D.C.: Office of Waste and Waste Management, 1980.

THE THROWAWAY THREE

PROPS

Person 1

This is the tale of the Throwaway Three,
Of Man and his Garbage throughout his-to-ry:
Now they're very nice people, like you and like me,
Who all have a problem, as you will soon see-
What shall they do with their garbage and trash?

All

Why, throw it! Or bury it! Or burn it to ash!

Person 3 - 50,000 BC (Cave dweller)

I am a cave dweller who lives on the ground.
What do I do with old stuff all around?
Why, burn it, like meat; burn it up in the fire;
Or bury it like bones, in the muck and the mire.

Skins

All

Yes, throw it, or bury it, or burn it to ash!
That's how we always get rid of our trash!

Person 1 - 200 BC (Roman)

I am a Roman who lives in the town.
Our laws won't allow me to just throw it down.
I have to drag it away for a mile
And then I can dump it, forget it, and smile!

Roman Helmet
Bag of Trash

Person 2 - 1200 AD (Briton)

I am a Briton, wary and quick;
Down on our street it can get pretty thick.
When housewives up there want to pitch out their goo,
They just leave it out there and yell: "Gardy-loo!"
(Person 1 stands on chair and yells, "Gardy-loo!")
It will stay there and stay there until the next rain,
Or until our fair London should burn down again.

Stack of Trash

All

Oh, what do we do with our garbage and trash:
We throw it, or bury it, or burn it to ash!

Person 3 - 1630 (Settler)

I am the settler. I came without much,
But everything else I must make with my hands.
So I don't throw out much - I use all I can.
Cloth scraps become quilts: I reuse my bent nails

Pilgrim Hat

It will be long time 'fore the next trade ship sails.

Person 1 - 1700 (Colonist)

I am a colonist; now Life's not so tough.
We have trade between cities that brings lots of stuff
And some things are made by our townfolk today,
I could buy a new harness, throw this old one away.
We have pigs and hogs running loose in our street,
If I toss it out there, they'll eat it up neat!

Coonskin Hat
Leather

Or I might bury it right over there.
Or I might burn it; nobody would care.
You see: the New world is the same as the Old!
We trashmakers come from the time-honored mold.

All

What are we still doing with garbage and trash?
You guessed it! Throw it away, or bury it, or burn it to ash!

Person 2 - 1890 (Industrialist)

I'm the industrial person and new on the scene,
I mass-produce goods with my trusty machine.
This sweater, handmade, took a week in days of yore,
But now in one hour, I can make forty-four.
I make things so cheaply, you can now afford two
And throw out twice as much trash as you need to do.

Engineer's Cap
3 Sweaters
(One handmade;
two machine-made)

Person 3 - 1950 (Scientist)

I am the scientific person in the new post-war age.
We've learned a few tricks while the war shortage raged.
When we couldn't get natural stuff to process
We invented synthetics to replace the rest.

Lab Coat

Person 2 (Industrialist)

Rayons and nylons, acrylics and plastics,
For furniture and clothing and even elastics:
Forget your old woolens and silks and your cotton;
Real wooden toys and washboards are forgotten.

Nylon stockings
Plastic Bags &
Containers

Person 1 (Scientist)

Our new stuff will last 'til forever, you see
Even when it's worn out to you and to me.
Permanent pressed, pre-sized and pre-shrunk
When dingy and old, it's still permanent "junk"
(Person 1 yells, "Junk")

Perma-pressed
shirt

Person 2 (Industrialist)

We make instant menus that come in a PACK.
You just boil the food in its own plastic sack.
Or our TV dinner in its tinfoil tray
It's quick; you don't wash it; just throw it away!

Plastic Bag
TV Dinner

Person 3 (Scientist)

We make lots of TVs and clothes dryers, too.
Don't ask for a trade-in; you're kidding, aren't you?

Broken Small
Appliance

Person 2 (Industrialist)

Our new cars all change with each model year,
Don't try to repair them, the cost's much too dear.
Besides, we don't bother to make last year's parts
for Skylarks, or Novas, or Cougars, or Darts.

Toy Car

Person 3 (Scientist)

It's the New Thing, the NEW that America craves.
So out, out with the old stuff, away to its graves.

Person 2 (Industrialist)

So what if there're more of us buying more goods?
So what if they won't rot away as they should?

Person 1 (Indian)

Now wait just a minute! You cannot fail
To include me in your historic trash tale.
We Indians lived simply, on prairies, in woods,
We made no high trash piles, nor mass-produced goods.
Let me be your critic, show you where you stand;
And tell you just how you're defiling our land.
Your new-fangled goods will not rot away.
When you throw them all down they remain where they lay
Then you say you will bury them deep in the ground:
All your urban trash will make quite a mound!
So then you would burn it, in smoldering masses
And fill up our air with smoke, deadly gases!
Oh, all of your answers have faults everywhere:
You'll either ruin the water, the land, or the air.
What's more, your resources-your lumber, your ore-
Get smaller each year than the year before.
And what's more-this old earth's not making any more.

Indian Headband

Person 2 (Industrialist)

You're right. Our resources are shrinking away
While our garbage problem grows bigger each day.
We're always converting resources to refuse
Instead of recycling them for reuse!

Throw Out Old
Blanket and
Cola Bottle

Person 3 (Scientist)

Oh stop it! Don't drop it! We'll think of a way
To make food for cows that's much better than hay.
Don't burn it, return it--we'll make something new,
A vase or your mother, a spyglass for you.

Pick Up
Orange Peels
Clear Bottle
Flower

(Flower in bottle for vase, flower out, bottle held
up to eye for spyglass)
Don't bury it, carry it-back to the mill.
We'll make a new blanket to ward off the chill.
(pick up old blanket and wrap around shoulders)

Person 2 (Industrialist)

It's time we progress past the Disposal Age
And make recycling the popular rage!
We'll have to give up old solutions for trash
And all realize that its pure balderdash -to just

All

Throw it, or bury it, or burn it to ash!

DISCUSSION

The skit shows that people have historically gotten rid of solid waste successfully by throwing it out, burying it, or burning it. But none of these methods solves modern urban garbage problems. The discussion should attempt to reinforce this concept. One way this can be done is to discuss the characters in the skit: how they disposed of their garbage or trash and why their method of doing so was either satisfactory or not satisfactory.

- Cave dweller: Threw it, burned it, buried it. These acts still did not cause a problem, for the same reasons.
- Roman: Threw it. Tossing out garbage began to be a problem because of the many people who lived in cities, but it was easily solved by taking the garbage out of the city.
- Briton: Threw it. A problem grew because more and more people moved to the cities, thus producing more trash than they could get rid of in the city.
- Settler: Had virtually no garbage.
- Colonist: Threw it, burned it, buried it. With greater trade came more things to be discarded.
- Industrialist: With a greater concentration of people in cities than ever before, and more buying because machine-made goods were cheaper, much more was thrown out.
- Scientist: The big change to synthetics and the use of enormous amounts of natural resources are causing tremendous problems.