Buddy's Bones

What happens when we bury trash?

How long does it take to decay?

Utah Core Objectives

Kindergarten
Std. 1 Obj 3 Develop and use skills to communicate ideas, information and feelings

Std. 3 Students will develop an understanding of their environment

Objectives
Students will:
- Predict what will happen when recyclables and compostables are buried
- Understand the basic concepts and reasons for composting and recycling

Materials Needed:
- Assorted recyclables and kitchen scraps
- Buddy's Bones storybook
- Medical gloves
- Magnifying glasses

Time
- 30 minutes

For more information contact:
Recycle Utah
1951 Woodbine Way
PO Box 682998
Park City, UT. 84068
(435) 649-9698
www.recycleutah.org

Prior to the class

In the Fall:
Read the "Buddy's Bones" storybook to the children but stop at p. 10. Why does Buddy bury his bone? To keep it safe. Why do people bury trash. To get rid of it. But do they really get rid of it? We're going to do an experiment to see if trash really goes away.

Tell children they will bury plastic bottles, aluminum cans, shredded newspaper and organic items (lettuce, carrots & egg shells). Make a record of the kitchen scraps. Take pictures of the children with their shovels.

Use the sample email on the last page to prep for the burying activity.

Scientific Process
Hypothesis: What do you think will happen?
Observation: Tell what you see.
Evaluate – Did you find what you expected to find?

In the Spring:
Un-earth the sample and place in clear plastic box for all classes to examine. Use the scientific process to lead children to understand the concept of decay and the basic concepts behind composting and recycling.

Springtime Discussion

Re-read the storybook 'Buddy's Bones." Read from the list of items and predictions students made in the fall. Have children gather round the box to make their observations. Allow 10 minutes.

Scientific Process
Hypothesis: What do you think will happen?
Observation: Tell what you see.
Evaluate – Did you find what you expected to find?

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Learning Points

Decay is Nature's way of making more soil and food for plants, insects, worms and animals.

Backyard composting is a way of making new soil out of your kitchen scraps, shredded newspaper and leaves.

Recycling is important because aluminum cans and plastic bottles last for 1000 years.

We can make new products out of used aluminum cans and plastic

Final Activity

Discuss decay — The process of decay is Nature's way of making more soil and food for plants, insects, worms and animals. Back yard composting is a way of making new soil out of your kitchen scraps and shredded newspaper and leaves. How many of you have backyard composters? What do you put in them? What do you get from your composter?

Discuss recycling – Certain items don't break down for a long time. Bones, aluminum cans, and plastic bottles can last a thousand years. Our way of recycling the natural resources of the Earth is to collect them and make new products out of them.

Final Message: We need to recycle aluminum and plastic and make them into new products. If we put them in the trash they will be buried in the landfill where they will last a long time, but won't be good to anybody.

Helpful definitions

- Decay — to rot, to break down

Extension Activities - see next page.

This lesson plan made possible by a grant from NRCS.

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Extension Activities

Language Arts: Have students copy the words they have learned on ruled paper or on the worksheet itself.

Composting: Establish a school composter where students can put kitchen scraps, apple cores and fruit peelings. For instructions on how to compost go to

Spinach Experiment: Purchase a bag of "ready to eat" spinach and hold it for a week to ten days. The day before the your science experiment, purchase a fresh bag of spinach. Give each student a sample of leaves from each bag. Have students compare the samples and discuss their observations:

- Color
- Texture
- Thickness of leaves
- Smell
- Ability to be handled (without breaking)

Put a batch of the spinach leaves in a cup or bowl of water. What happens to the water? A: It turns green. Little bits break down and float or seem to dissolve. What do you think happens to leaves in Nature when it rains or when snow melts?

Forest Walk: Take students on a walk in the forest. Examine the dirt on the forest floor or path. Examine old logs and moist areas. Draw conclusions about Nature's "composting."

Visit the Recycling Center & the Landfill: Take students on a field trip to the recycling center and the landfill. Discuss the importance of recycling and the fact that the landfill is getting full.

This lesson plan made possible by a grant from the Lund Foundation.

School Prep

If you are going to bury bones in the Fall, here is a sample email to send to the teachers to prepare for the first session.

Dear Teacher,

I will be your environmental educator for Buddy's Bones on September 17th at 10:30 am and 12:30 pm. It will be meaningful if the children bring recyclables they have collected themselves. If they have used these items in school (a lunch for example or paint pot) it's even more meaningful. Each class should have:

Recyclables

2 plastic bottles
2 glass jars or bottles
1-3 other kinds of plastic - yogurt cups, etc.
1 metal can (tomatoes or whatever)
1 piece cardboard
1-2 pieces of paper

Compostables - Any of the following

Shredded carrots
Banana peel
Apple core
Grapes
Peach pit
Anything of your choice.

We will dig three shallow holes about a foot deep. I cannot dig (back injury) so if we have older students, a maintenance person, a strong teacher, I would appreciate it.

Please let me know if you will need:

- a shovel
- stakes or something to mark where the items are buried.

After we read the Buddy's Bones story in the classroom (10 minutes) each class should have 15 minutes to allow for walking out, burying, discussing the children's predictions of what will happen to the items over time, and the arrival of the next class, I would appreciate 30 minutes per class.

I am looking forward to it!