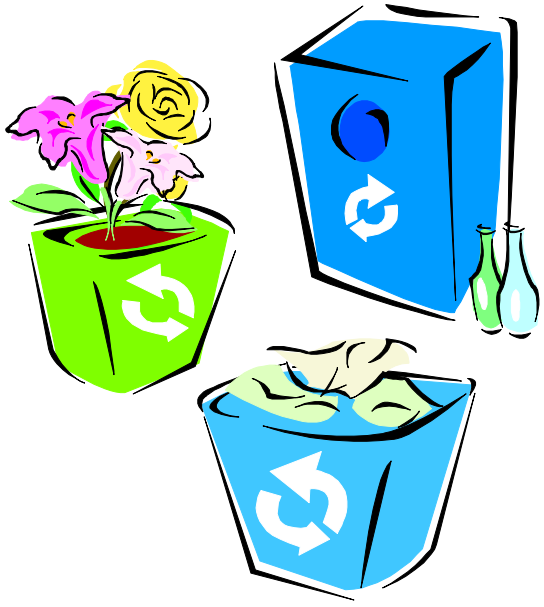
DYING AND DECAY



CFE 3233V

OPEN CAPTIONED
ALTSCHUL GROUP
CORPORATION
1993
Grade Levels: 3-8
15 minutes

DESCRIPTION

Some things die and decay and others don't. A walk in the park teaches that leaves, logs, and animals are examples of things that decay or rot. An elementary class buries apple, potato, and banana skins; bread; a plastic tray; and an aluminum can. They learn what decays and what does not. Some things that don't decay can be recycled; those that do, enrich the earth.

INSTRUCTIONAL GOALS

- To demonstrate that plants and animals rot or decay.
- To demonstrate that some things do not rot or decay.
- To compare plants and animals before and after decay starts.
- To observe how aluminum cans are recycled.
- To introduce the concept that all living things die and decay as a part of the life cycle.

BEFORE SHOWING

1. Read the CAPTION SCRIPT to determine unfamiliar vocabulary and language concepts.
2. Discuss what happens to plants and animals when they die.
3. Define the terms *rot* and *decay*.
4. Define *recycling* and identify one local recycled resource.

DURING SHOWING

1. View the video more than once, with one showing uninterrupted.
2. Pause to point out the word *poisonous* and emphasize the warning not to touch any fungi.
3. Pause at the section showing the dead rat to explain the terms *speeded-up film* and *maggots*.
4. Identify each time-lapse photography segment.

5. Pause to discuss the on-screen question, “But does everything decay?”
6. Pause to predict whether or not each item will decay.
7. Pause after the teacher digs up each item; study the before and after pictures and answer the questions.

AFTER SHOWING

Discussion Items and Questions

1. Generate lists of things that will decay and those that will not.
    a. Discuss similarities and differences between the materials of which the items are made.
    b. Discuss how the food chain assists in the process of decay.
2. Generate a list of items that can be recycled.
    a. Discuss why recycling is important.
    b. Decide why not everything we use can be recycled.
3. Why is it important to know whether or not things decay?
4. Describe the life cycle of a plant.
    a. Discuss how decaying plants assist the growth of new plants.
    b. Discuss how fallen leaves play an important role in the ecosystem of the forest.
5. What role does moisture and temperature play in the rate in which organic matter decays?

Applications and Activities

1. Display a bowl of flowers. Observe and record the processes of decay. Graph the results.
2. Place a piece of bread on a dish under plastic wrap. Observe the changes over time.
    a. Identify molds as a type of fungus.
    b. Point out the dangers of some molds. Reiterate the warning not to touch mold or other fungi.

3. Search the school grounds for “leaf skeletons.” Compare them to new leaves.

4. Sort objects and materials as those that decay over a short period of time, longer periods of time, or not at all.
    a. Experiment with burying samples of different materials.
    b. Cut out pictures and make collages of things that decay and things that don’t decay.

5. Collect and sort things to recycle. Take the items to a recycling center.

6. Research and report on the recycling process for a variety of materials.

7. Visit a recycling plant.

8. Discuss things that are thrown away as waste.
    a. Research ways to get rid of waste.
    b. Set up a worm bin for getting rid of organic waste.
    c. Visit a composting site to observe the process.

9. Write letters to convince other people they should recycle instead of throwing things away.

10. Debate the need for recycling programs in the local community.

11. Set up a recycling collection site at school.
    a. Make posters to encourage recycling and post them around the school.
    b. Keep track of the collected material over time.
    c. Chart or graph the collected information.
    d. Evaluate the information and justify the value of recycling.

12. Look at different types of packaging for different products. Discuss alternative forms of packaging that would be better for the environment.

WEBSITES

Explore the Internet to discover sites related to this topic. Check the CFV website for related information (http://www.cfv.org).

CAPTION SCRIPT

Following are the captions as they appear on the video. Teachers are encouraged to read the script prior to viewing the video for pertinent vocabulary, to discover language patterns within the captions, or to determine content for introduction or review. Enlarged copies may be given to students as a language exercise.

(male narrator)
Can you tell
what time of year it is

by looking at the leaves
on the trees?

The leaves have changed
from green to yellow and brown.

It's the season when the trees
drop their leaves.

It's autumn.

Here's Vicki with her mother,

her brother Harvey,
and sister Jenna.

They are enjoying
a walk in the woods.

They are walking on a carpet
of fallen leaves.

Millions of leaves fall
at this time of year,

and it happens every year.

What happens
to all those leaves?

If millions of them fall
to the ground every year,

why aren't we covered
in them?

There are so many leaves
in the woods

that Jenna can play a trick
by hiding in them.

But the leaves are never
really deep enough to cover us,

because after they have fallen
to the ground,

they start to rot away.

Decaying *is the name*
of this process.

This leaf
has started to rot.

Parts of it
have already decayed.

Under a log, the leaves become
damp and rot away more quickly.

In a park, falling leaves
are a problem

and must be gathered up.

If they were left
on top of the grass,

the leaves would keep out
the air, sunlight, and rain,

and the grass would not grow
so well.

This tractor pulls a machine

that can gather up leaves
and cut grass at the same time.

The leaves and grass cuttings
are then taken and piled up

in a corner of the park
where they can slowly decay.

This is a pile
of newly gathered leaves.

Where the park keeper
is digging

was a pile of leaves
three years ago.

It doesn't look much like leaves
now; it looks more like soil.

But look closely.

There are still bits of twigs
and some leaf shapes

which are decaying to make
a rich, dark compost

which is crumbly,
like soil.

It's not just leaves
and grass cuttings that decay.

Falling trees will rot
in the same way,

though it takes longer.

Vicki and her family have found
a tree trunk that is decaying.

An orange fungus is growing
on the rotting wood.

Many different kinds
of fungi grow

in the dampness
of the decaying logs.

This dampness also helps
to break down the wood.

The forest floor is littered
with dead leaves,

branches, and logs--

all rotting away and providing
food for other plants.

In among the leaves,

Vicki and Jenna have found
another rotting log

covered in soft green moss

and fungus.

Some fungi are poisonous,

and you should never touch
any of them.

Like the leaves and the logs,

the bodies of dead animals
also decay.

This speeded-up film shows

how maggots feed
on a dead rat,

leaving only
the fur and bones.

In time, even this
will break down and disappear.

But does everything decay?

Children at Douglas Primary
School are trying to find out.

Some objects will be buried
in the garden.

First, the children
are trying to predict

what will happen
to each one.

It's hard to tell
just by looking and touching

whether they will decay.

What do you think will happen
to this banana skin

if it's buried underground
for a few weeks?

How will this plastic tray
change?

Will a slice of bread
still be good to eat

in a few weeks' time?

This drink can is made
from aluminum.

Will it rot away
or not?

A teacher buries the objects
in the school garden.

He puts in markers

so that he'll be able
to find them again.

Several weeks later, the teacher
digs them all up again

for the children
to look at.

What do you think
will have happened?

(teacher)
I've dug up the things
that you buried.

(narrator)
The first thing
is the banana skin.

Not much is left.

It has turned dark,
and it falls into pieces.

What color
was it before?

Yellow.

(narrator)
You can compare
the banana skin

to see what has happened.

Next, the potato is dug up.

Will it be rotten too?

Wait. Something
is different here.

It has something
growing out of it.

It will be
another potato.

Do you think the potato peel
will ever rot away?

Next, the apple peel
is uncovered.

(teacher)
It's almost gone.

Here it is. Look.

(narrator)
But look.
It's hardly there.

[children commenting,
indistinct]

The apple peel has decayed so
much it has almost disappeared.

What do you think will have
happened to the bread?

It's turned brown and soggy,
and it's mostly rotted.

(boy)
It's rotted away.

(teacher)
There's a little bit.
Does it look like bread?

(children)
No.

(narrator)
No one would ever
want to eat that!

However,
not everything decays.

(narrator)
Look at this.

What has happened to this?

Although the corner broke
as it was dug up,

the plastic tray
has not decayed at all.

What about the aluminum can?

(teacher)
What's happened to that?

(narrator)
It's not rotted
or changed color.

(teacher)
Changed color?

No. No.

(narrator)
It's just the same.

It looks exactly like it did
when it was in the classroom.

Vicki and her family
finished their walk,

and now they are enjoying
a snack.

They have some fruit
left over,

but the rest is waste.

Some of it,
like the potato chip bag,

goes into the trash can.

The apple core can be put into
the dead leaves and branches,

or into the compost.

Apples decay naturally.

You may see fungus
forming on the outside,

just as it does
on dead trees.

Aluminum cans
will not decay,

but they can be recycled.

[cans clattering]

What happens
to all the cans

that are thrown
into containers like this?

Well, they're crushed,
tied together in bales,

and taken
to the recycling center.

[tractor back-up signal]
beep, beep, beep

[back-up signal]
beep, beep

Just look at them.

Millions of used cans,
all of them made from aluminum.

They're loaded
onto conveyor belts

and carried up
into a shredder.

Then the paint
is burned off.

The shreds of aluminum
are dropped

into a pool
of molten metal.

It's extremely hot.

The heat melts
the small metal pieces.

It turns them
to liquid too.

Salt is added to help
recycle the aluminum.

The molten metal then goes
into this huge furnace

with other types
of waste aluminum.

The temperature in this furnace
is even higher.

The liquid metal runs
from the back of the furnace

like a hot river,

along gullies
and into molds.

This silver liquid
is then cooled

and turns back to a solid.

Water is sprayed
around the molds

to keep them cool.

At last, the molds
can be opened,

and huge blocks of recycled
aluminum are lifted out.

This one's bigger and heavier
than a school bus!

Some buses, cars, and airplanes
are made from this metal,

and some of it will be used
to make new drink cans.

Aluminum can be used
over and over again

through this
recycling process.

What else can be recycled?

What do we throw away
as waste?

Dying and decay is a natural
part of the life cycle.

It goes on all year-round,

but it's especially noticeable
in the fall.

Some things decay,

and some things do not.

Many things which do not decay
can be recycled.

The decay of natural things
enriches the earth

and helps to make new life

and new growth.

Funding for purchase
and captioning of this video

was provided by the
U.S. Department of Education:

PH: 1-800-572-5580 (V).