



The WasteNot Project
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Recycling 101

Lesson Guide for Flathead Teachers April 2021

This guide intends to give Flathead teachers ideas for lessons or activities that engage students on waste reduction, recycling education, and reconsidering what we use and how we can change our behaviors to become more earth friendly.

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*indicates that outside, additional materials are required

Lesson #1: What Happens When We Throw It Away? (10 minutes)

Grades K-7(adapt for grade levels)

So first, who knows where something goes when you throw it away? [The landfill]. How many people have been to the landfill? (Ask kids to explain what they saw there)

The landfill is a really giant hole in the ground. This hole could probably fit 20 of your school buildings inside of it. We fill the hole with all of the stuff that everyone in the Flathead Valley throws in the garbage.

- Let's start with our **trash can**. Trash cans are really important because they help keep our community clean. Does anyone know what it's called when someone throws something on the ground instead of in a trash can? (*Littering*) Littering is bad because that trash can end up in our rivers and lakes, and hurt fish and other animals. So we definitely don't want to litter.
- When we throw something in the trash, **garbage trucks** pick it up from the dumpsters outside of our house. Or, if you live outside of town, your parents might drop off your garbage at the green bins and a garbage truck picks it up from there. Then the garbage trucks take all the trash that everyone has thrown away that week and brings it to a place called the landfill.
- The **landfill** is a really giant hole in the ground. This hole could probably fit 20 of your school buildings inside of it. We fill the hole with all of the stuff that everyone in the Flathead Valley throws in the garbage. Once the garbage trucks are at the landfill, they dump out their garbage. One garbage truck can carry a lot of trash!
- Then helper trucks, called **compactors**, come around and crush all of the garbage to make it smaller, so it takes up less space and they can fit as much garbage as possible into the landfill.
- At the end of the day, they cover up the trash with dirt to keep birds and animals out of the trash. Our garbage workers do that over and over again every day, filling the hole with trash and covering it with dirt, until our landfill is full and it makes a garbage mountain.
- Once our landfill is full, we have to dig a new giant hole where we can put all of our trash that we throw away.

We want to save space in our landfill for things that really have to be thrown away, so we save land in our beautiful valley for things like parks, schools, and neighborhoods. We don't want a bunch of garbage mountains taking up land in our valley.

We can help slow down how fast that mountain of garbage is growing by not throwing so much stuff away. There are three different words that start with the letter R that help us throw less trash away.

Lesson #2: What Are The 4 “Rs”? (15 minutes)

Grades K-7

Let's get the 3 Rs on the board. These 3 R words can help us make less garbage. Can anyone guess one of the R words I'm looking for?

Write Reduce, Reuse, and Recycle on the board. Write definitions and ask for examples as you go through each.

- **Reduce** – use less. How can we use less plastic bottles? Plastic bags? Paper at school?
- **Reuse** – use again. Explain that Reuse only works when it's something that's supposed to be thrown away. What can we do with an old yogurt container? A glass jar?
- **Recycle** – make new. We send our waste to a factory to make new stuff out of the material. Who recycles at home? Do you recycle at school?
 - What can we recycle? Write out what they call out – Paper, Cardboard, Metal, Plastic, and Glass.
 - When Plastic is mentioned, explain how there are seven different types of plastic. Ask if anyone knows how to tell the difference between them. Draw the chasing arrows with a #1 inside, pass around a few different plastic containers so the kids can look at the numbers.
 - When metals/cans are mentioned, pull out an aluminum can and a tin can. Use a magnet to demonstrate the difference between the two.
 - *Stress:* The most important thing for recycling is knowing what items can go into which bins. It's so important to only put things that can be recycled in the recycling bins, and put trash in the garbage can.
- I'm going to introduce you to a 4th R: **Rethink** – make differently. People are starting to use Rethink to think differently about how we make things. Right now, the way we make things leads to a lot of garbage. There's a lot of packaging, and a lot of things we're only supposed to use once and throw away. Companies are starting look at making things so that there's no garbage once we're done with their product – maybe it's easier to recycle or reuse. (*Show mustard jar example.*)
- These Rs actually go in a specific order – start with Rethink, then Reduce, then Reuse, and last, Recycle. Recycling should be our last option – try Reduce and Reuse FIRST, especially with items we can't Recycle. (Number them on the board so the kids remember.)

Lesson #3: Use the 4Rs on the Garbage Can (20 minutes)

Grades 2-3

We're going to do an activity to practice using these four Rs to throw away less garbage. First, I want you to imagine what it would be like if we ran out of room for garbage. I'm going to read you a news article from the year 2030 – so the future – so that we can imagine what it might be like. *(Read news article.)*

Now I want you to think about what we can do today to keep this story from coming true. I want everyone to come up and grab an item out of this trash can. Take the item to your desk and use this piece of paper to write a couple of sentences about which of these Rs you would use to keep it out of the garbage. *(Give an example using a water bottle.)* You can use any of these four Rs. Then, if you have time, make a drawing of the item so you can remember what it is.

I'm going to give you guys just five minutes to do this, so you have to be quick. Then we'll come back together and I'll have some people share what you came up with. *(At end, bind all of the pages together as a book to keep in the classroom to give ideas how to use the 4 Rs.)*

Lesson #4: Right Bin, Right Stuff (8 minutes)

Grades 1-3

We're going to play a game to sort out what can be recycled from our trash. We're going to practice putting recycling in the recycling bin, and garbage in the garbage can.

We'll have one bag for PAPER, one for CARDBOARD, one for METALS, and one bag for things that belong in the trash.

Call up one group at a time to come get something from me that I pull out of the garbage bin. They should tell the class what it is and will then decide which bag the item should go into. When all the items have been sorted, show the students the difference between the "recycling" bin and the "garbage" bin. The garbage bag went from full to only having a couple items!

Always take the time to sort before throwing! Ask yourself can this be Reused? Can this be Recycled?

Recycled Products *For recycling to work, we also have to buy things made with recycled material.* Show creative items made from recycled materials. For older students (middle school), show plastic into fleece video: <https://www.youtube.com/watch?v=zyF9Mxlcltw>

Lesson #5: Practicing The Hierarchy (15 minutes)

Activity: Reduce, Reuse, Recycle Choice Cards

Grades 2-7

We're going to practice using the three Rs in decisions that we make in our everyday lives. We'll get into small groups, and each group will get one of these Choice Cards. The cards ask you to make a choice for the best way to keep an item out of the garbage. As you're making your choice, remember the hierarchy with our three Rs, and make the best decision based on that. As a group, you'll decide which option is best, and there may be more than one right answer. Each group will share with the class which choice they made.

(Lead them through a simple example, then pass out the cards to the groups. Give them five minutes to discuss before coming back as a group.)

Lesson #6: Use Less Stuff (15 minutes)

Activity: Reducing Paper

Grade 6

We're going to do one more activity, and this one will be focused on paper and cardboard. We use a lot of paper at school, and we know that paper/cardboard is the #1 item thrown away.

We're going to come up with some ideas for how you can save paper, but first I want you to think about how paper is used in your classroom. Do you think your classmates already try to reduce the amount of paper they use? We're going to form a hypothesis and test it. *(Write two options on board – yes, my class already conserves paper//paper is wasted in the classroom. Have students raise their hands for which they believe and tally the votes.)*

Now, we're going to do some blind testing to test our hypothesis. For every question, you'll have three options: almost always, sometimes, and never. *(Have every student place their heads on their desk and close their eyes, and raise their hands to vote on the quiz. Tally the votes and discuss if the more popular hypothesis was right.)*

Alright, now we'll get back into our small groups. I want every group to come up with five different ways you can REDUCE using paper and cardboard, either at home or at school. This can be all sorts of paper – paper towels, paper plates, notebook paper, printer paper. You can also list things that you are already doing to reduce using paper. *(Divide them back into groups and have them fill out a worksheet. After five minutes, bring them back together to discuss ideas.)*

Resources for Teachers

Recycle Montana provides resources such as [school trunks](#), and [lesson plans](#) that can be ordered directly and accessed online.

EPA provides [lesson plans and other resources](#) for educators regarding environmental education

Missoula's Garden City Harvest program provides online [teacher resources](#) for gardening lessons and other outdoor education ideas.

PepsiCo We Are Teachers Recycling Education Resources

<https://www.weareteachers.com/microsite/free-recycling-resources-classroom/>

Includes free printable lesson plans, posters, games, writing prompts

Recycling Videos for the Classroom

Disclaimer: these videos are to be used at the discretion of individual teachers. The intention of this list is to provide resources for students to dive deeper into learning about recycling, waste reduction, and waste management. The WasteNot Project does not necessarily endorse any message of any video listed.

All Ages

"For 30 Days I Wore Every Piece of Trash I Created" (4:25 min)

<https://www.youtube.com/watch?v=9vCstrZ7ilk>

See how one person wore his waste to show how much trash we make!

Reading Rainbow: How Trash is Recycled (6:23 min)

<https://thekidshouldseethis.com/post/recycle-video-for-kids>

LeVar Burton shows us how trash is recycled and the importance of reduce, reuse, and recycle.

Recycling Song

https://www.youtube.com/watch?v=zuoU3an6qyk&feature=emb_logo

How are plastic bottles recycled into fleece? (5:29 min)

<https://www.youtube.com/watch?v=zyF9Mxlcltw>

Learn how plastic bottles can turn into fleece clothing.

DIY Recycled Ukelele (1:30 min)

<https://www.youtube.com/watch?v=2J1viCvo8WM>

Learn how to make a ukulele from a plastic bottle.

Grades K-2

Kid's Academy: Recycling for Kids (4:42 min)

https://www.youtube.com/watch?v=6jQ7y_qQYUA

Introduction to recycling for kids!

Sid the Science Kid, PBS (4:30 min)

<https://pbskids.org/video/sid-science-kid/1884201189>

Importance of recycling and reducing waste including a lesson on proper sorting.

Sesame Street: Murray Visits a Recycling Center | Murray Had a Little Lamb (6:03 min)

<https://www.youtube.com/watch?v=-0ijMPvIy-U>

Learn what happens at a recycling center with Murray and Ovejita.

“Recycle!” Music Video (3:06 min)

<https://www.youtube.com/watch?v=BaFpv03hq-4&t=106s>

The 3 R’s for Children (5:12 min)

https://www.youtube.com/watch?v=oxeo_wmOC0&t=74s

Peppa pig learns about the 3 Rs.

Grades 3-5

Composting for Kids (5:56 min)

<https://www.youtube.com/watch?v=dRXNo7Ieky8>

Why should we compost? This video shows the compost process and describes how it can be done at school

How Compost is Made: A Field Trip! (6:42 min)

<https://www.youtube.com/watch?v=26IO95Xt5WU>

Learn the basics of composting – and an interview with a composter.

How Recycling Works! (4:09 min)

<https://www.youtube.com/watch?v=VlRVPum9cp4>

Jessi shows us what recycling is and where our recycling goes!

Grades 6-8

Family Living Zero Waste Shares Tips to Live Sustainably (9:40 min)

<https://www.youtube.com/watch?v=8UNIUE4sOqg>

Explores why and how one family went zero waste.

How To Recycle Your Old Clothes (9:05 min)

<https://www.youtube.com/watch?v=eDOAKQFSLgA>

Learn why and how to recycle old clothes.

What Happens to Your Recycling After It's Collected? (5:46 min)

<https://www.youtube.com/watch?v=s4LZwCDaoQM>

This NowThis video shows how recycling facilities works and provides background on why we recycle, why proper sorting is important and general tips.

How Are Aluminum Cans Recycled? (6:18 min)

<https://www.youtube.com/watch?v=KmMP67eC2tg>

Ever wondered how aluminum cans are recycled? This Discovery video shows the process from start to finish.

Grades 9-12

The Plastic Problem – A PBS NewsHour Documentary (54:08 min)

<https://www.youtube.com/watch?v=1RDc2opwg0I&t=2s>

This PBS NewsHour Documentary explores wh

Can Chemical Recycling Solve The World's Plastic Problem? (13:35 min)

<https://www.youtube.com/watch?v=LPIlpwMuV9Y>

Chemical recycling is exciting technology. This video explores how chemical plastic recycling works and its implications for the future.

How Can We Fix The Massive E-Waste Problem? (17 min)

<https://www.youtube.com/watch?v=IqxwnmlUUtS>

Learn what happens to our electronic waste and explore potential solutions.

TedxTeen: Why I Live a Zero Waste Lifestyle (13:30 min)

<https://www.youtube.com/watch?v=pF72px2R3Hg>

How one person went fully waste-free, a Ted Talk.

Montana PBS: Trash Talk (28 mins)

<https://www.montanapbs.org/programs/trash-talk/>

Discusses the state of recycling in Montana and highlights three people who work in the recycling industry in Montana.

Can These Companies Solve the Plastic Waste Problem? (15:19 min)

<https://www.youtube.com/watch?v=fjHW5kBvonY>

Describes the global plastic waste problem, discusses the potential of bioplastics and other ways that we can reduce our plastic footprint.

How to Recycle Your Old Clothes (9:05 min)

<https://www.youtube.com/watch?v=eDOAKQFSLgA>

Learn about why clothes are recycled and how you can recycle your clothes.

One Month Without Single Use Plastics (11:19 min)

https://www.youtube.com/watch?v=-sj3BT_LLH8

Learn about plastic waste, and follow along as Lucy Biggers goes without single use plastics for a month.

Interactive Recycling Games:

Online Sorting Game (Grades 3-6)

<https://berecycled.org/game/>

The 3Rs Board Game (Grades 2-5)

<https://drive.google.com/file/d/0B4HFwfdLs3hCY1JadHlzNV9RaXVGUWo4T2dnWUFwQ/view>

Let's Recycle Sorting Game (Grades K-2)

<https://www.pinterest.com/pin/518125132104372075/>

Cub Scouts Recycling Game

<https://cubscoutideas.com/240/fun-recycling-game-for-cub-scouts/>

Make a Robot out of Recycling!

<https://www.sciencekids.co.nz/projects/makearobot.html>