



Reduce, Reuse, Recycle (RRR) Patch Program

for groups, troops, and classes

Thurston County Solid Waste offers the RRR Patch Program. The program is designed to teach youth the meaning and potential actions behind the phrase “reduce, reuse, recycle.”

The patch program encourages scouts and other youth to take action to better care for their environment and neighborhood.



Patch requirements

2nd–6th graders:

- Complete one **activity** from each section.
- Complete one **action project** as a group or with your family.

7th graders and older:

- Complete one **activity** from each section.
- Complete two **action projects** as a group or with your family.

After the patch requirements are met:

- Mail or email the completed requirement sheet (on page 9) to:

Thurston Solid Waste
9605 Tilley Rd S
Olympia, WA 98512

SolidWasteYouth@co.thurston.wa.us



You must be based in Thurston County to earn the patch.

This patch program is adapted from Cuyahoga County's patch program, Reduce, Reuse, Recycle.

Activity section

Choose at least one activity from each of the three sections.

Section 1: Reduce

Reducing waste means to make less trash in the first place. Everything that goes into your garbage can is buried in the landfill and never used again.

The best way to reduce waste is to avoid buying and using disposable items like plastic straws and single-serving containers. Buying and using less stuff will save you money and send less waste to landfills.

Activity 1: Pack a waste-free meal

Learn how to make less trash when packing a lunch or snack.

1. Copy the “Waste-free meal planning” sheet as a handout (**Appendix A** on page 10) and work independently or as partners to fill out the answers.
2. Identify the types of waste thrown away at meals. Discuss how to pack a waste-free meal, and have your group make a list of waste-free snacks for meetings.
3. Have everyone make posters about ways to reduce waste. Share the posters with each other, another troop, or class, or display them for others to learn about reducing waste.

Waste-free cold lunch ideas

- Carry your lunch in a lunch box, insulated lunch bag, or cloth lunch bag.
- Pack a sandwich, chips, yogurt, or pie in a reusable food container.
- Bring snacks in naturally wrapped packages, such as an apple, banana, or hard-boiled egg.
- Put drinks in a reusable thermos or water bottle.
- Include durable utensils and a cloth napkin, which can be washed and reused.
- Find out more at wastefreelunches.org.



Activity 2: Host a waste-free party

Learn how to organize a party where everything is reused, recycled, or composted.

1. Create a list of what would be needed for the party such as invitations, decorations, favors, food, and what would be needed to clean up.
2. Using the template provided in **Appendix B** on page 11, fit as many of these items under the reusable, compostable, and recyclable columns as possible. *Remember, this list can be only items that will not be put in a trash bag. Only items that are reusable, compostable, or recyclable can be used at the party.*
3. Put your new skills to use by planning your next meeting or celebration so it is waste-free.
4. Have everyone take the list home to share with family for holiday and party planning.

Helpful hint!

Recycling is great, but reducing and reusing are where it's at! Try to have as many items as possible in the Reusable category.

Activity 3: Research the life cycle of a product's packaging

Learn how many resources it takes to make and dispose of an item's packaging.

1. Choose a product with a lot of packaging.
2. Make a list of the raw materials used to make the product and its packaging.
Example: plastic is made from oil.
3. Decide what will happen to the product and its packaging when it no longer can be used. Will it be recycled? Composted? Put in the landfill?
4. Design new packaging for the product. The new packaging should:
 - a. Weigh less.
 - b. Take up less space.
 - c. Be made from recyclable or compostable materials.
5. See if you can find a similar product on the market that would have less impact on the earth.

Section 2: Reuse

Using something again is called reuse. Instead of throwing something away, you can repair it, lend it to a friend, donate it to charity, or make it into something different. All of these extend the life of an item and end up creating less trash.

It's also important to think about reuse before you buy a new item. Before you buy something, ask yourself these questions:

- “Do I really need a new one, or is a used one just as good?” A lot of used items are just as good as new and a lot cheaper! Also, don't forget to donate, share, or sell unwanted items when you are done with them.
- “Can I repair or reuse this item, or will I have to keep buying new ones?” Choosing reusable or repairable items doesn't just keep trash out of the landfill, it will save you money over time!

Activity 1: Tool time

Learn or experience how to repair an item.



1. Brainstorm ways to maintain goods that youth value, and discuss the benefits of proper care and repair of items. For example:
 - a. Basic bicycle maintenance and proper storage.
 - b. How to protect and store games and toys.
2. Have the group make a list of what they would like to learn to maintain or repair.
3. Bring in a guest speaker or take a field trip to learn how to use tools safely and learn how to repair something. Some ideas are:
 - a. Bike repair shop.
 - b. Wood shop.
 - c. Garage.

Activity 2: Sew it up

Learn to mend torn clothing, attach missing buttons, or hem pants or a skirt.

1. Discuss ways to maintain clothing to keep them looking new, so the purchases will last longer.
2. Share ideas how mending or fixing items can prevent them from becoming trash.
3. Have each group member bring in an item that needs mending, fixing, or hemming, and do one of the following:
 - a. Invite someone in to teach your group how to mend, fix, or hem clothes by hand.
 - b. Take a sewing class to learn how to mend, fix, or hem clothes on a sewing machine.



Activity 3: Reuse your rubbish

Make a craft project using materials that would have been thrown in the trash or recycling.

1. Use the internet to find reuse craft projects by searching for trash or recycled craft projects.
2. Pick a project. Everyone collect the items needed.
3. Do the craft.
4. Share five ways each person's family reuses items at home.

Helpful hint!

Think about what families throw away each day. Can your group find a new use for or make something out of these items? Some ideas are:

- Make a reusable tote bag out of chip bags.
- Collect glass jars and turn them into miniature greenhouses.
- Use an empty cereal box and scrap paper to make a journal.

Section 3: Recycle

Recycling is collecting and taking items to a factory to be made into something new. These new items are made using resources from old items instead of using brand new ones.

For example, the aluminum cans in your recycle bin are melted down in a factory and made into new cans. Other aluminum items can be recycled into parts for bikes, cars, or even airplanes!

Activity 1: Build a worm bin

Having a worm bin at home is a great way to deal with your food scraps. And by letting worms eat your food waste, you'll end up with worm castings (worm poop) - one of the best soil fertilizers available!

1. Research worm bins.
2. Find out what worms like to eat and create a feeding plan.
3. Build the worm bin. See **Appendix C** on page 12 for instructions.



Activity 2: Volunteer to staff a waste station

Recycling stations are often set up at special events or at schools to help sort waste. Waste stations could include a mixture of recycling, trash, and/or organics bins. By helping staff a waste station, you can help people properly sort their waste by teaching them what goes where. You can complete this activity in one of two ways:

1. Find an event that already uses waste stations. Event organizers might already have waste stations set up, but would love to have volunteers to help out.
2. Find an event that is planned but doesn't have waste stations yet. If event organizers have never thought of having waste stations, you can encourage them to borrow some just for their event. Then you or your group can take turns staffing the waste stations. Anyone can borrow event recycling bins free of charge. Go to ThurstonSolidWaste.org and click on "recycling" to find out more.

Activity 3: Recycling - learn and share

1. Learn what items you can and can't recycle or compost in Thurston County by doing one of the following:
 - a. Have Thurston County Solid Waste give a recycling presentation to your group. Email SolidWasteYouth@co.thurston.wa.us.
 - b. Use the internet:
 - i. To learn what items go into your recycle bin, visit the Waste Wizard on LeMay's website, thurston.lemayinc.com, or the City of Olympia's website at olympiawa.gov/wastewise.
 - ii. To learn what items go into your compost collection cart, visit: silverspringsorganics.com/products.html.
 - iii. Contact the Thurston County Master Recycler Composters if you have questions regarding composting at home. Call the Rot Line at 360-867-2163 or email master@co.thurston.wa.us.
2. Have everyone make a poster to take home that will help remind what items go into the recycling bin, and hang it near your bins.
3. Have each person make a plan to share what was learned with their family at home.
4. Monitor recycling and composting at home for one week to make sure that everyone is doing it correctly.



Action projects

Action Projects can be completed as a group or family.

2nd–6th graders – Complete one action project.

7th graders and older – Complete two action projects.

- 1. Recycling** – Start a cell phone or print cartridge collection program at school, a church, or a local business.
- 2. Donation** – Organize a collection and give games, toys, clothing, or other items to a second-hand store, a church, or another charity.
- 3. Swap day** – Organize a clothing, book, toy, or game exchange at school or within your group.
- 4. Teach “Reduce, Reuse, Recycle”** – Be a mentor to younger groups. Organize, promote, and teach the activities in this patch program to other youth. This will help the younger kids get their RRR patch, too!
- 5. Composting** – Start or improve a compost collection program in your school lunchroom.
- 6. Repair project** – Help with a repair project such as repairing or painting a structure like a cabin, bridge, or bench.
- 7. Litter pick-up** – Clean up a park or local neighborhood by working together to pick up litter. Solid Waste can help by providing safety vests and litter grabbers for your group.
- 8. Catalog challenge** – Set a goal to reduce the amount of catalogs being sent out to families. Sixty catalogs canceled saves one tree. Call the catalog companies directly with the 1-800 number on the back of each catalog OR have a parent/teacher set up a free account at CatalogChoice.org and input the catalogs to be canceled.
- 9. Take the “Waste Less Food Challenge”** – Learn why it is so important to reduce the food we waste and help your family make changes at home. Visit WasteLessFood.com to take the challenge!
- 10. Organize a waste sort** – Meet with County staff to organize a waste sort for your class or school. A waste sort involves sorting and then weighing your garbage and recycling. After the sort you can get a better idea of how to tackle your trash.

RRR Patch requirement sheet

Contact information

Troop or group leader name _____

Mailing address _____

Phone number _____ Email _____

Troop number _____ Grades _____ Number in group _____

Please send _____ patches to the address above.

Questions

1. Which REDUCE Activity did your group choose? Add any comments about teaching the activity or comments from the group.
2. Which REUSE Activity did your group choose? Add any comments about teaching the activity or comments from the group.
3. Which RECYCLE Activity did your group choose? Add any comments about teaching the activity or comments from the group.
4. What ACTION PROJECT(s) did your group do? Please add any comments.
5. What was the group's favorite part of this patch program?
6. Has the group or any of its members changed habits to produce less trash? How?

Remember—your group must be based in Thurston County to be eligible to earn the patch.
Mail or email this sheet to Thurston County Solid Waste: 9605 Tilley Rd S, Olympia, WA 98512
or SolidWasteYouth@co.thurston.wa.us

Appendix A

Waste-free meal planning

Circle the best waste-free choices and be ready to answer why you made your choice.
There may be more than one answer for each.

Item	Packaging choices			
Sandwich	Foil	Plastic wrap	Plastic baggie	Reusable container
Soup	Thermos	Disposable "to go" container		
Snack	Pudding cup Orange	Pretzels in foil or plastic baggie	Brownie in plastic wrap	Chips in reusable container
Drink	Milk carton Thermos	Reusable water bottle	Soda can Juice box	Plastic water bottle
Lunch bag	Brown bag	Plastic grocery bag	Lunch box	Cloth lunch bag
Utensils	Disposable plastic	Durable silverware	No utensils	
Napkin	Cloth	Paper		

Appendix B

Waste-free party planning

Example

Reusable	Compostable	Recyclable
Party supplies		
<ul style="list-style-type: none"> Silverware 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none">
Food and drink		
<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Apple core 	<ul style="list-style-type: none"> Plastic water bottle
Clean-up		
<ul style="list-style-type: none"> Sponges 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none">

Appendix C

Build a worm bin!

Materials:

- Two 8-10 gallon plastic storage boxes (dark, not see-through!) as shown in pictures. Reuse Alert! Purchase them from a second hand store. Save money and REDUCE.
- Drill (with 1/4 inch and 1/16 inch bits) for making drainage and ventilation holes.
- Newspaper.
- About one pound of red wiggler worms. If you have a hard time finding them in nature, you can buy them online or sometimes find them at a local farmers market.



Step 1: Allow for drainage

Drill about 20 evenly spaced 1/4 inch holes in the bottom of each bin. These holes will provide drainage and allow the worms to crawl into the second bin when you are ready to harvest the castings.



Step 2: Add ventilation

Drill ventilation holes about 1 – 1 ½ inches apart on each side of the bin near the top edge using the 1/16 inch bit. Also drill about 30 small holes in the top of one of the lids.

Step 3: Prepare bedding

Prepare bedding for the worms by shredding newspaper into 1-inch strips. Worms need bedding that is moist but not soggy. Moisten the newspaper by soaking it in water and then squeezing out the excess water. Cover the bottom of the bin with 3-4 inches of moist newspaper, fluffed up. If you have any old leaves or leaf litter, add that, too. Throw in a handful of dirt for “grit” to help the worms digest their food.

Step 4: Add worms

Add your worms to the bedding. One way to gather red wiggler worms is to put out a large piece of wet cardboard on your lawn or garden at night. The red wiggler worms live in the top 3 inches of organic material and like to come up and feast on the cardboard! Lift up cardboard to gather the red wiggler worms.

An red wiggler worm can consume about 1/2 of its weight each day. So if your food waste averages 1/2 pound per day, you will need 1 pound of worms or a 2:1 ratio. There are roughly 500 worms in one pound. If you start out with less than one pound, don't worry, they multiply very quickly. Just adjust the amount that you feed them for your worm population.



Step 5: Cover bedding

Cut a piece of cardboard to fit over the bedding, and get it wet. Then cover the bedding with the cardboard. (Worms love cardboard, and it breaks down within months.)

Step 6: Find bin space

Place your bin in a well-ventilated area such as a laundry room, garage, balcony, under the kitchen sink, or outside in the shade. If you place it outside, make sure to bring it inside in the winter, so the worms don't freeze. Place the bin on top of blocks or bricks or upside down plastic containers to allow for drainage. You can use the lid of the second bin as a tray to catch any moisture that may drain from the bin. This "worm tea" is a great liquid fertilizer.

Step 7: Feed your worms

Feed your worms slowly at first. As the worms multiply, you can begin to add more food. Gently bury the food in a different section of the bin each week, under the cardboard. The worms will follow the food scraps around the bin. Burying the food scraps will help to keep fruit flies away.

What do worms like to eat?

To keep pests away, it is best to feed your worms a vegetarian diet. Most things that would normally go down the garbage disposal can go into your worm bin (see the list below). You will notice that some foods will be eaten faster than others. Worms have their preferences just like us.

Feeding your worms

Recommended	NOT Recommended
<ul style="list-style-type: none">• Breads & grains• Cereal• Coffee grounds & filters• Tea bags• Fruit• Vegetables	<ul style="list-style-type: none">• Dairy products• Fats• Meat• Oils• Salt


Help! I'm having problems with my worm bin!

Troubleshooting

Problem	Probable Cause	Solution
Worms are dying or escaping	Too wet	Add more bedding
	Too dry	Moisten bedding
	Bedding is used up	Add more bedding
Bin stinks!	Not enough air	Drill more ventilation holes
	Too much food	Do not feed for 1-2 weeks
	Too wet	Add more bedding
Fruit flies	Exposed food	Bury food in bedding

When the first bin is full and there are no recognizable food scraps, place new bedding material in the second bin and place the bin directly on the compost surface of the first bin. Bury your food scraps in the bedding of the second bin. In one to two months, most of the worms will have moved to the second bin in search of food. Now the first bin will contain (almost) worm-free vermicompost. You can gently lift out any worms that might remain, and place them in the new bin, or put them into your garden!



 Printed 4/2019 on at least 30% post-consumer recycled content paper.

Mailing Address:

Thurston County Public Works
Solid Waste Division
9605 Tilley Road S
Olympia, WA 98512

