

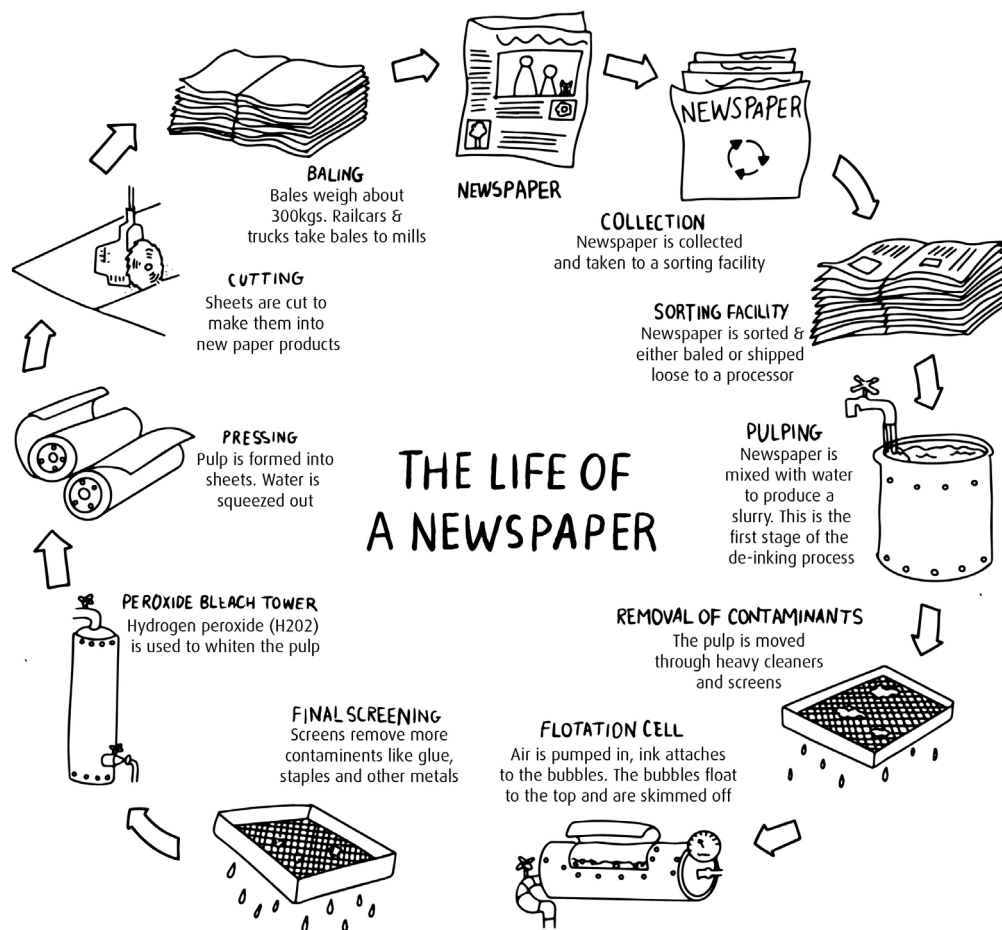
Environmental Education: 3Rs (Reduce, Reuse, Recycle)

How is Paper Recycled?

Background Information

Recycling is a process where materials are collected, sorted and reprocessed into new things. When we recycle, we reduce the amount of materials going to the landfill, conserve natural resources (like trees), and reduce the amount of energy and water needed to create products from new natural resources.

The CRD curbside program has three streams of recycling: paper and cardboard, mixed containers and glass. Did you know that the paper and cardboard collected through the curbside program is made into all kinds of new things? Paper (newspapers, flyers, envelopes, office paper) can be recycled into new paper or cardboard, the paper cover for drywall, molded paper egg cartons and insulation. Paper packaging (cardboard boxes, paper towel rolls, paper bags) can be recycled into new boxes, paper towels, tissues, paper-based plant pots, and brown paper products including paper towels. Check your tissue boxes, paper towel, paper bags and toilet paper. Are any of them made from recycled materials?



Warm-Up

Examine your recycling area at home. Do you have a spot for paper recycling? What kinds of things do you have in your paper recycling?

Take a look in your fridge or cupboards. Do you have any items that may have been made from recycled paper or cardboard? Look for egg cartons, cereal boxes, brown paper products.

Listening

Podcast

But Why: A Podcast for Curious Kids — *But Why* is a show led by you, kids! You ask the questions and they find the answers. It's a big interesting world out there. On *But Why*, they tackle topics large and small, about nature, words, even the end of the world.

1. How is Paper Made? (28:24) [<https://www.vpr.org/post/how-paper-made#stream/0>]

"How is paper made from trees? Why does paper fall apart when it gets wet? Why does it lose colour in the sun? Who invented paper? We make a few sheets of paper and learn all about how it's made with artist Carol Marie Vossler at BluSeed Studios in Saranac Lake, New York."

Hands-On

Make your own recycled paper!

There are different methods for making your own recycled paper. Some methods require more equipment or more specialized tools. The method below is a simple way to make your own paper, using common household items. Feel free to search online for different options and pick the one that works best for you.

Materials

- Blender or egg beater
- Newsprint, scrap paper, wrapping paper, toilet paper, etc.
- Rolling pin or sponge
- Mixing bowl (if using egg beater)
- Framed screen (old window screen, wire mesh screen) or sieve
- Flat, shallow dish or pan (slightly larger than your screen)
- Water (warm)
- Optional mix-ins (seeds, thread, flower petals, leaves)

Method

1. Gather and tear paper products into small pieces. If you are using a blender, place pieces in blender and cover with warm water. If using an egg beater place pieces in mixing bowl and cover with warm water.
2. Beat or blend the water and paper mixture until you have broken down the small pieces into fibres.
3. **If using a screen**, pour the mixture into the flat dish. Place your frame into the mixture and pull up to allow the water to drip through. Shake the screen around gently to distribute the pulp fibers evenly.
4. **If using sieve**, pour fibre mixture into sieve and allow water to drain away. You might need to gently press the mixture to help get water out.
5. Once you have your wet pulp fibres add in your optional mix-ins.
6. There are a few options for drying. Whichever method you choose, this is also the time to shape your paper (size, shape and thickness).
 - a) turn the pulp over onto some dry paper towel or newspaper, cover the top with paper towel and use a rolling pin to press down and squeeze excess water out.
 - b) flip the pulp out onto your counter top or a cutting board, press down with a sponge all over to remove excess water.
 - c) if you used a screen you can leave the pulp in the screen to dry — this will take longer.
7. Allow to air-dry on a flat surface.
8. Use your recycled paper!

Videos

Short and simple YouTube videos about how paper is made and recycled.

[Educational Videos for kids: How Paper Is Made](#) (2:15) by Green Living Science

[The Paper Recycling Process](#) (1:44) by Domtar

Expand and Connect

Study the life cycle of trees. We make materials out of adult trees but what process do trees go through before they can be used to make paper?

Plant a seed and watch it grow! Record your observations every week. Draw a picture every week, take a photo with a ruler beside your plant, write down observations (height, amount of water given, number of leaves, etc.)

How do other living things use trees? Humans use trees for building, making materials, and food but other living things use trees too. Brainstorm ways other living things use trees or go for a walk and look for examples of how animals use trees.

What type of trees are in your neighborhood? Try to identify different types of trees around your house or neighbourhood. Some resources to help identify different tree species include:

- [Tree Book: Learning to Recognize Trees of British Columbia](#) by Roberta Parish
- [Index of Trees](#) - BC Ministry of Forest, Lands and Natural Resources Operations
- [Leafsnap](#) - iPhone app
- [iNaturalist](#) - Android and iPhone app that helps you identify plants and animals around you

Still Curious?

Additional activities and information resources:

Capital Regional District Activities:

CRD 3R Hierarchy Educator's Resource — [Recycle Unit](#)

Waste and Recycling [Colouring Sheet, Maze and Word Search](#)

Waste and Recycling [Colouring Sheet, Maze and Word Search](#) (French)

CRD Videos— [Hartland Landfill Aerial Tour](#)

[Hartland Landfill: A Year of Garbage](#)

Recycle BC

Recycle BC is responsible for residential packaging and paper recycling in BC. They are the stewardship group responsible for collecting your household packaging and paper recycling and getting it to processing facilities and markets.

Recycle BC Videos: What happens to my recycling?

<https://recyclebc.ca/what-happens-to-my-recycling-post-collection/>

<https://recyclebc.ca/what-happens-to-my-recycling-end-markets/>

If you have any questions about recycling in the region, or are looking for ideas on how to connect this topic with other learning opportunities, please contact us at education@crd.bc.ca.