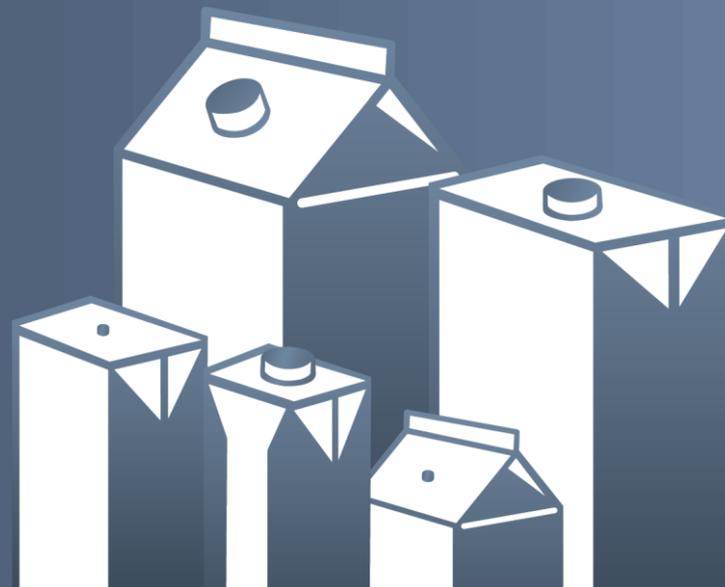




# Carton Recycling 101

TDSB Annual EcoSchools Kick-offs  
October 2019



# Points for Today

- What is a Carton?
- Who is Carton Council Canada?
- How are Cartons Recycled?
- Why Recycle Cartons?
- Tools for Schools



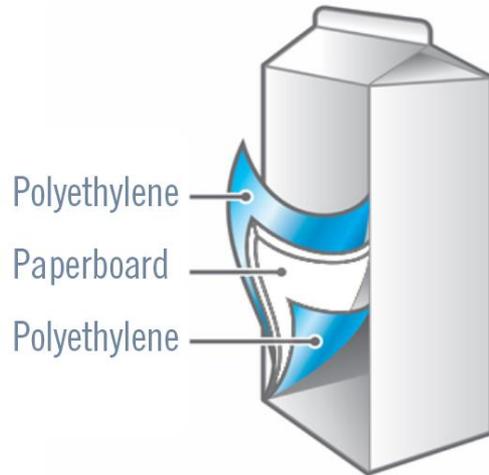
# What Constitutes a Food and Beverage Carton?

Made mainly from paper, a renewable resource, light weight and compact, cartons have a low carbon footprint and are recyclable.

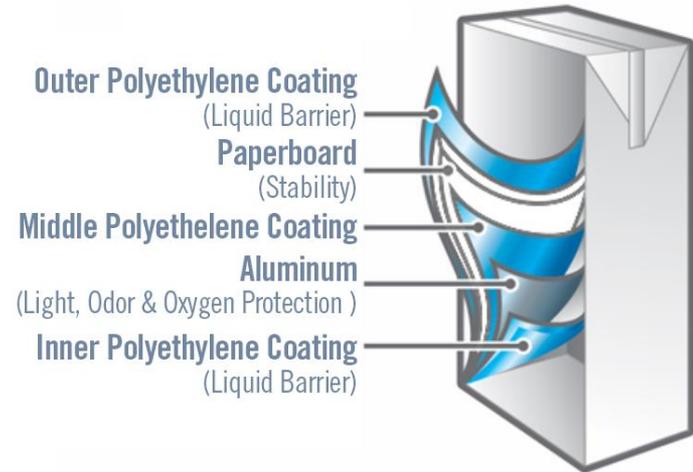


Multi-layer design provides protection against light, air and harmful bacteria

## Refrigerated “gable top”



## Shelf stable “aseptic”



**No wax or “waxy coating”**

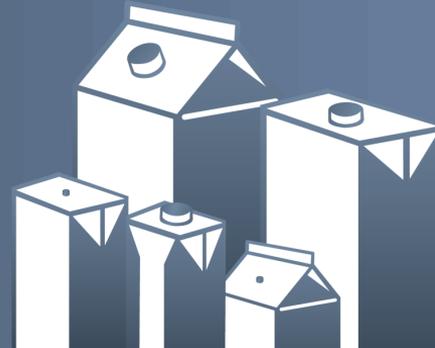
# Who is the Carton Council?

- Voluntary industry organization
- Competing companies working together to grow the recovery and recycling of used cartons nationwide

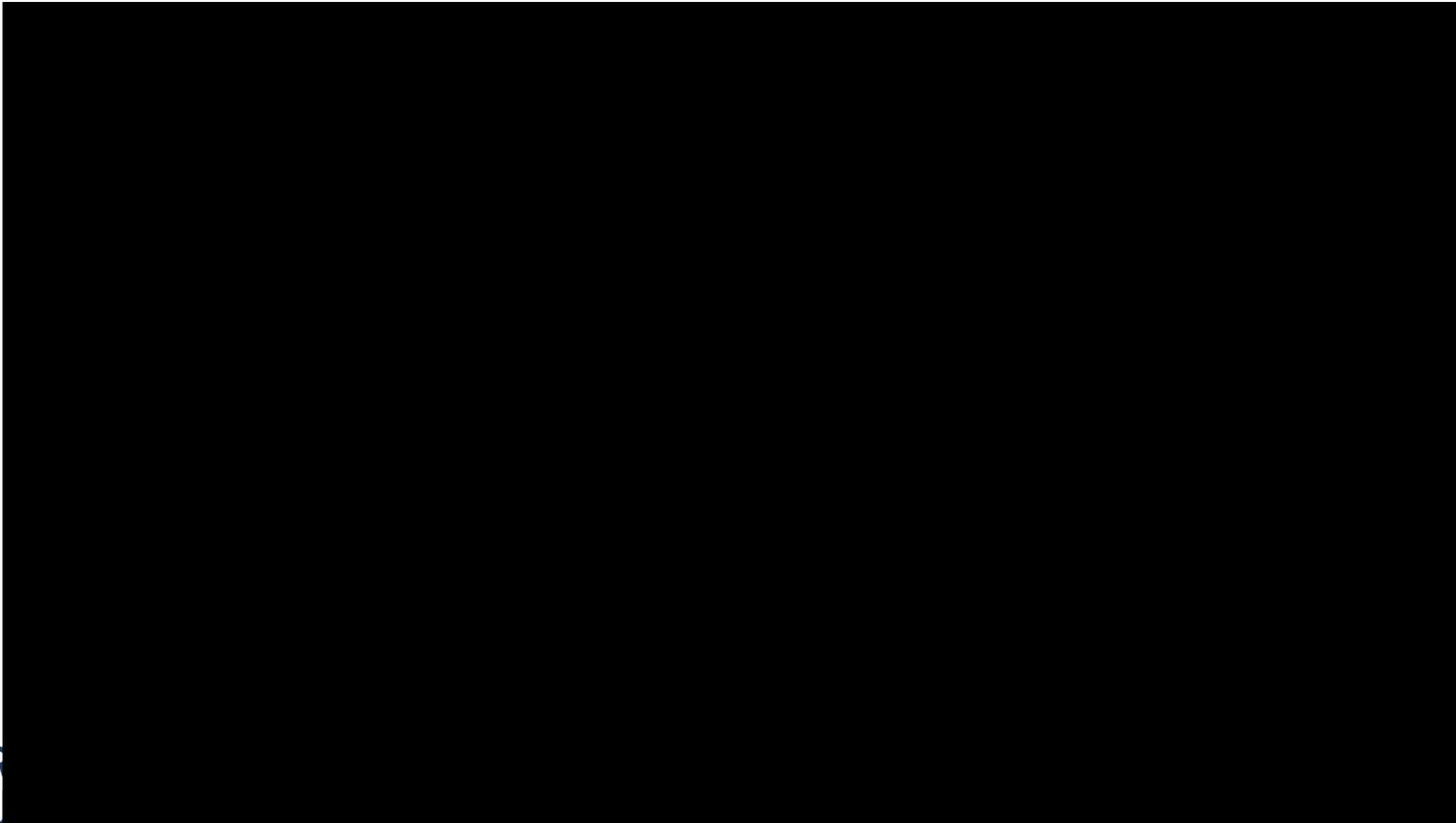




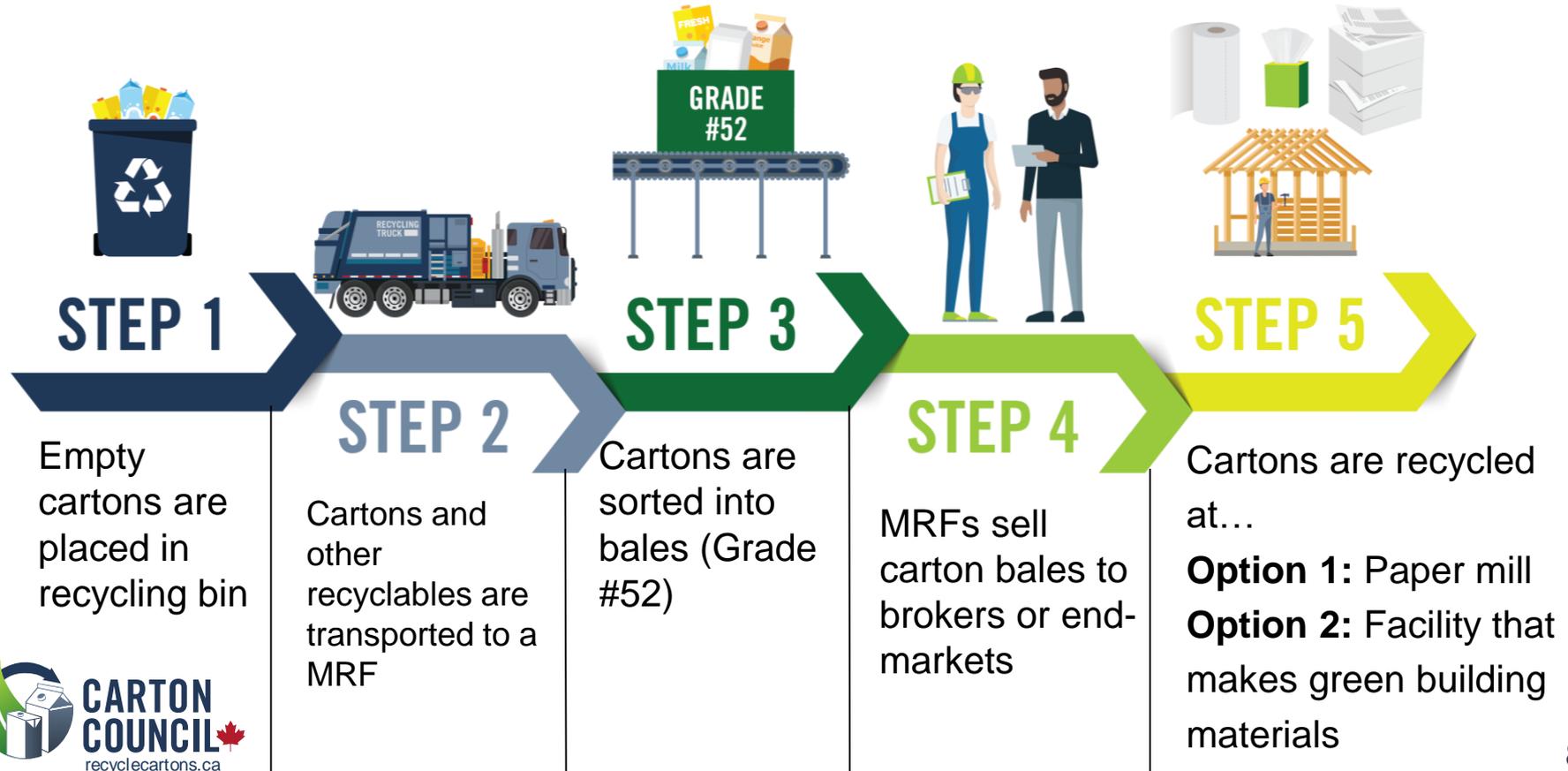
# The Carton Recycling Process



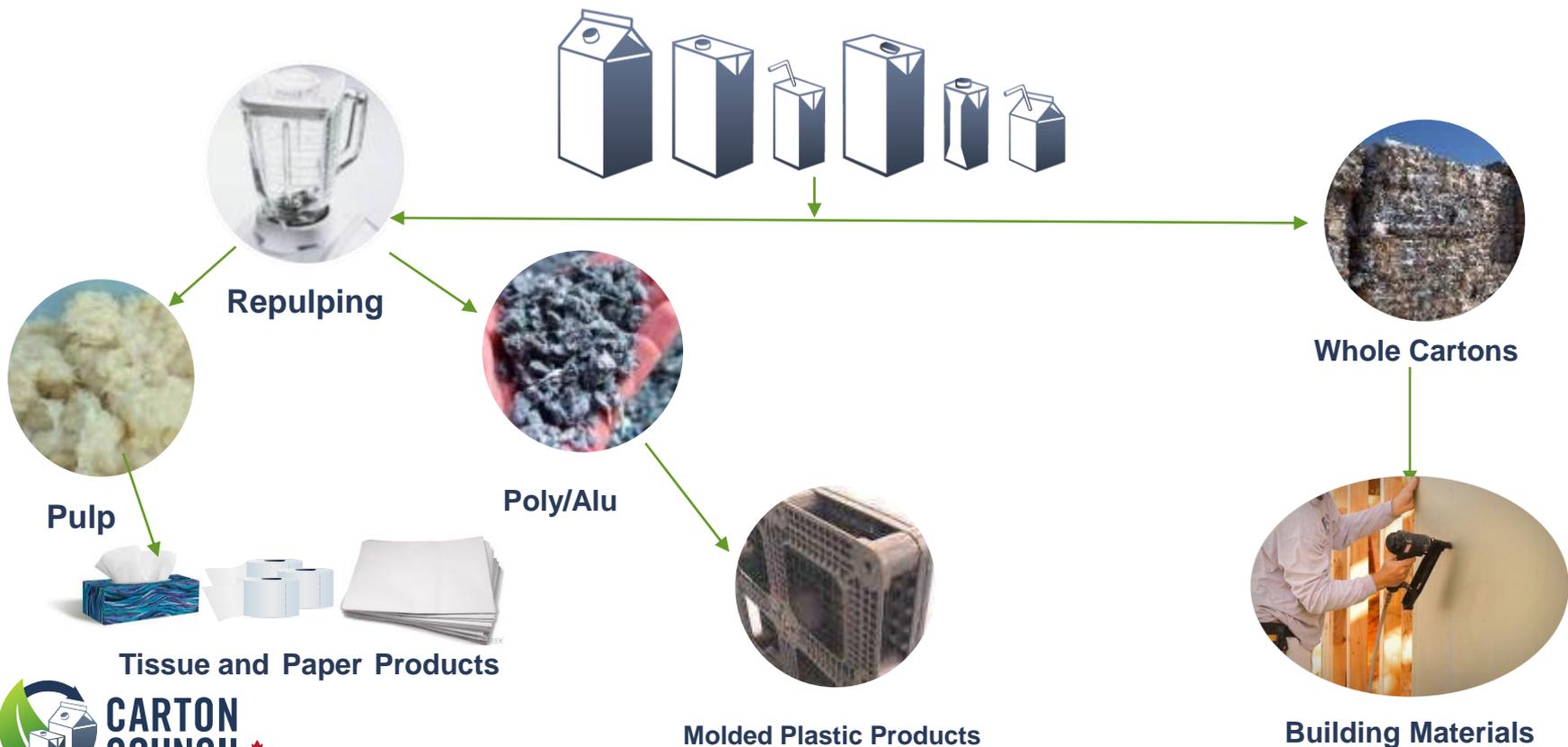
# Carton Recycling Process - Video



# Carton Recycling Process



# Best Value for Cartons is by Sorting Them into Grade #52



# Recycling is an Important Part of a Circular Economy

Recycling cartons saves trees, electricity and decreases air pollutants



A ton of paper made from recycled fibers conserves:

**29,000** Litres of Water

**441** Kilowatts of Electricity

**17-31** Trees

Eco-friendly construction materials allow cartons to “live” another 20 years

**30 cartons**

Can be used to create a 2’x2’ ceiling tile

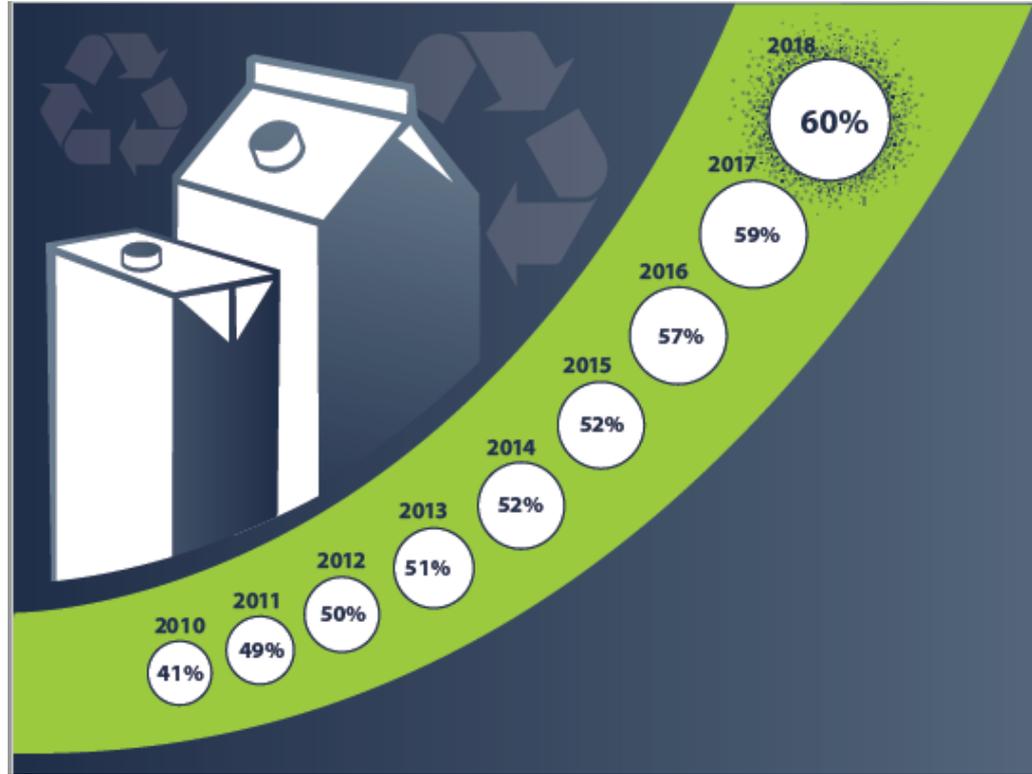
**400 cartons**

Are used to become a panel of wallboard

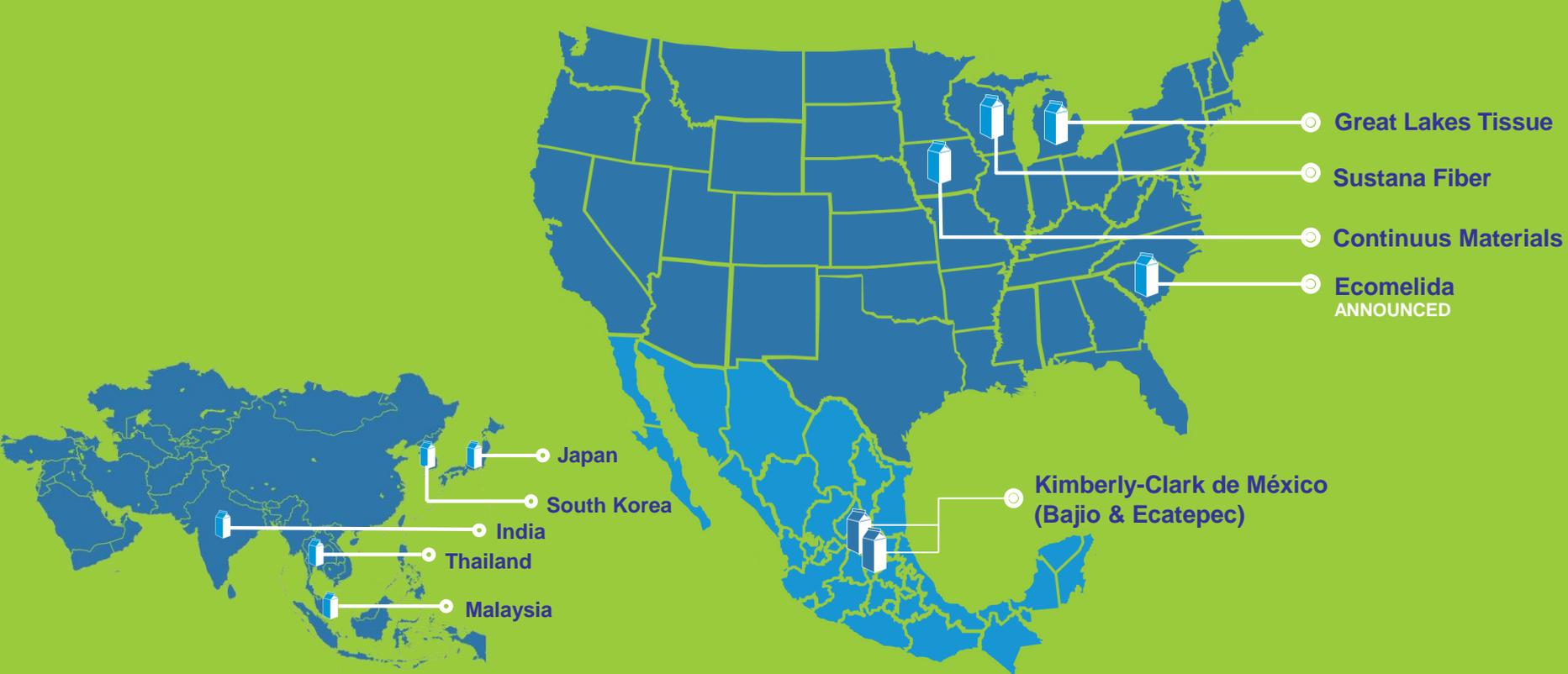
According to the Ellen MacArthur Foundation, a circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems.

# Carton Recycling is Growing!

As of 2018, the cartons recovery rate in Canada is 60%. This represents a 46% increase over the last eight years!

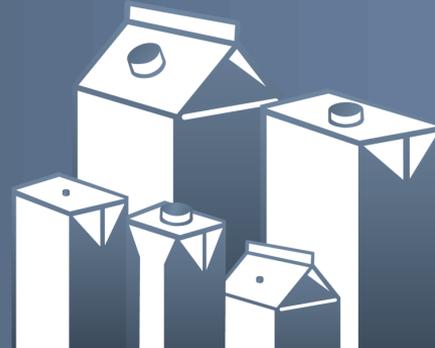


# End Markets for Used Cartons





# School Recycling



# Schools Generate Cartons



One Ontario elementary student consumes approximately **77 servings** of juice and milk each year.

**104 M** cartons are consumed in Ontario schools alone each year.

This translates to **> 1,000 tonnes** of cartons generated in Ontario elementary schools alone yearly.

# Tools for Schools

## Best Practices for Carton Recycling in Schools

- Cartons must be **empty** (but rinsing is not mandatory)
- Use “slush”/dump bucket for leftover liquids
- Clear labelling of bins
- Don't flatten cartons
- Best practice guide available at: [cartonopportunities.org](http://cartonopportunities.org) (click on Schools)



Draining residual milk and juice is critical to a successful recycling program.

Use a screen (right) to capture any wrappers, straws or food that get tossed with the milk.



# Tools for Schools

## Waste Audits

### Garbage Audit

Weight of Garbage Bags

	Example	Bag 1	Bag 2	Bag 3	Bag 4
<b>Weight of bag</b> <i>(do not empty any liquids)</i>	10 kg				

Visual Audit

Waste Category	Example	Bag 1 Vol. (%)	Bag 2 Vol. (%)	Bag 3 Vol. (%)	Bag 4 Vol. (%)
----------------	---------	----------------	----------------	----------------	----------------

**Recyclable Containers and Packaging**

Do you know what is recyclable at your school? Keep in mind that it might not be the same as

<i>Milk Cartons</i>	30%				
<i>Drink boxes</i>	20%				
<i>Cans and glass</i>	10%				
<i>Plastics</i>	30%				
<b>Recyclable Paper</b>					
<i>Mixed paper</i>	10%				
<i>Cardboard</i>	5%				
<b>Other recyclables</b> Many municipalities do not have systems in place for these items, however, there are numerous					
<i>E-waste, batteries, textiles, etc.</i>	0%				

Food waste / Organics

### WHY COMPLETE A SCHOOL WASTE AUDIT?

Be a waste detective! To help your school reduce waste production, the first step is to get to know what is happening in the waste streams at your school, and how much is going to the landfill.

A waste audit lets students investigate waste diversion practices and identify the gaps and opportunities in your school revealed through your school's waste streams.

### Recycling Audit

Weight of Recycling Bags

	Example	Bag 1	Bag 2	Bag 3	Bag 4
<b>Weight of bag</b> <i>(do not empty any liquids)</i>	10 kg				

Visual Audit

Waste Category	Example	Bag 1 Vol. (%)	Bag 2 Vol. (%)	Bag 3 Vol. (%)	Bag 4 Vol. (%)
----------------	---------	----------------	----------------	----------------	----------------

**Recyclable Containers and Packaging**

Do you know what is recyclable at your school? Keep in mind that it might not be the same as

<i>Milk Cartons</i>	30%				
<i>Drink boxes</i>	20%				
<i>Cans and glass</i>	10%				
<i>Plastics</i>	30%				
<b>Recyclable Paper</b>					
<i>Mixed paper</i>	10%				
<i>Cardboard</i>	5%				
<b>Other recyclables</b> Many municipalities do not have systems in place for these items, however, there are numerous					
<i>E-waste, batteries, textiles, etc.</i>	0%				

Food waste / Organics

Tracking milk cartons and drink boxes separately as part of your waste audit allows you to determine whether all those containers coming into your school are actually being captured in the recycling stream

# Tools for Schools Curriculum Resources

- Lesson plans for grades 1-3 & 5-6 available at [simplyrecycle.ca/carton-recycling/](http://simplyrecycle.ca/carton-recycling/)
- In-class carton recycling kit (blender + sieve) - Google “Recycling demonstration Tetra Pak packages” for demonstration video
- Other real world examples available online

Name: \_\_\_\_\_

## LET'S ADD IT UP!

**MMSM** Multi-Material Stewardship Manitoba  
**CARTON COUNCIL** of Canada

**PART 1**  
How many milk and juice cartons do you use each week?  
Let's find out!

For one full school week you will draw the number of milk or juice cartons you use every day. For example, if you used two juice cartons and one milk carton on Monday, you would draw three cartons. (You can ask your parents to help if you want.)

MONDAY						DAILY TOTAL
TUESDAY						DAILY TOTAL
WEDNESDAY						DAILY TOTAL
THURSDAY						DAILY TOTAL
FRIDAY						DAILY TOTAL

Add up the number of cartons you used this week and write the number below.  
I USED \_\_\_\_\_ CARTONS THIS WEEK.

**PART 2**  
Draw a picture on the back of this page showing how you can make sure all of the cartons used at school and at home are recycled.

## PART 1: POTENTIAL IMPACT INDICATOR

### 1. HOW MANY CARTONS ARE GENERATED AT YOUR SCHOOL?

a. Identify the total number of enrolled students who eat lunch at school: \_\_\_\_\_

Does your school offer a milk program?

If yes:

b. \_\_\_\_\_ x 0.409 (avg. number of milk cartons consumed per student per day) = \_\_\_\_\_  
 # of enrolled students who eat lunch at school      Expected daily milk carton usage

If no:

The expected daily milk carton usage will be 0

c. \_\_\_\_\_ x 0.168 (avg. number of juice cartons consumed per student per day) = \_\_\_\_\_  
 # of enrolled students who eat lunch at school      Expected daily milk carton usage

d. \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_  
 Daily milk carton usage      Daily juice carton usage      Expected daily carton usage

## PART 2: COMMUNICATE YOUR FINDINGS

1. As a class, find out how many students attend your school. Write the answer here: \_\_\_\_\_

2. Using the calculations above, write your answers here:

- Our school's estimated daily carton usage: \_\_\_\_\_
- Weight of estimated waste diverted per year: \_\_\_\_\_
- Number of 240 L recycling carts filled with cartons diverted from landfill per year: \_\_\_\_\_
- Sheets of paper saved each year: \_\_\_\_\_
- Trees saved each year: \_\_\_\_\_
- Litres of water saved each year: \_\_\_\_\_
- Kilowatt-hours (kWh) of energy saved each year: \_\_\_\_\_
- Metric tonnes of CO<sub>2</sub> not going into the atmosphere each year: \_\_\_\_\_



Questions?