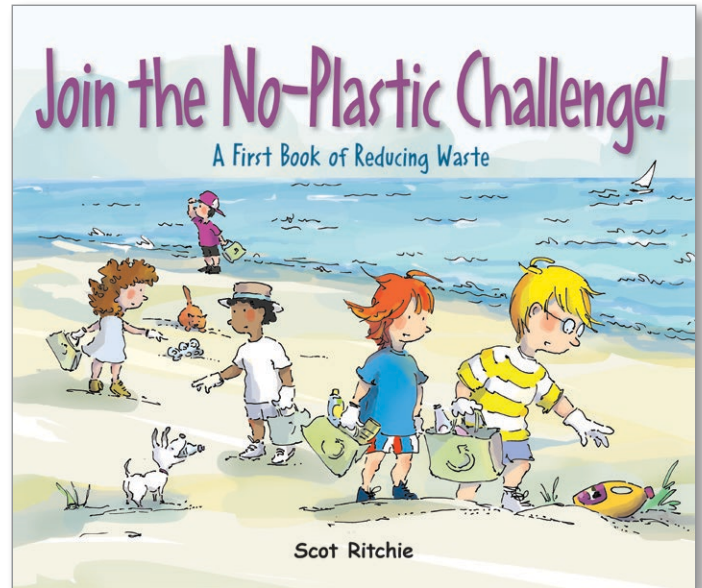


Join the No-Plastic Challenge! — Teaching Guide

About the Book

For his birthday celebration, Nick has challenged his friends to spend the day without using any single-use plastic. This means they use their own cloth bags for shopping, they say no thanks to plastic straws and, instead of balloons, they decorate with kites and streamers made of natural materials. The children discover that not using plastic is not that hard. They also learn about what plastic is made of, how much of it surrounds us and how it's polluting our oceans and affecting the food chain. Most importantly, the friends learn ways to use less — including just saying NO! The book concludes with fun ideas for readers to do a No-Plastic Challenge of their own!

This friendly introduction to a timely and urgent topic is part of Scot Ritchie's popular Exploring Our Community series. It will raise awareness of just how much plastic we use every day, and why that matters. Rather than focusing on the negative, however, the book takes a positive, proactive approach to the subject, empowering children with ideas for what they can do about it. As with all the books in the series, this one features friendly, appealing illustrations and the same diverse cast of characters. It has strong curriculum ties in science, including environmental awareness, sustainability and stewardship. It also offers terrific character education lessons in responsibility, citizenship and initiative.



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About the Author/Illustrator

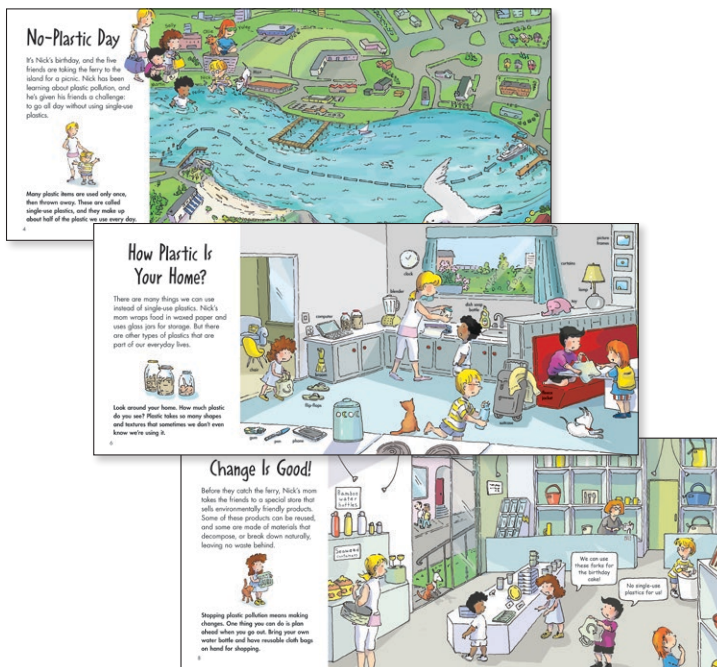
SCOT RITCHIE is an award-winning author and illustrator. He has worked with the National Film Board of Canada and been a judge for the Governor General's Award for Illustration.

Scot grew up with one creative parent and one encouraging parent. He is convinced this is a recipe for success because he's spent his life being fairly sure he knows what he's doing — but at the same time, never entirely sure. When you're not entirely sure, you're probably learning.

Growing up in the port city of Vancouver, Scot had a curiosity about the world. He has been able to marry his passion for bookmaking with his passion for travel. Even before the internet, Scot would pack up his mini office and work from places as far afield as Chania in Crete, Berlin, Honolulu and a 17th century stable in Amsterdam. Scot likes to think this shows up in his work, giving it a universal appeal.

Scot's books have been translated into many languages, including Arabic, Chinese, Dutch, French, Korean and Russian.

He draws on paper then scans the ink line into his computer where the coloring is done. He is especially proud of his Exploring Our Community series with Kids Can Press.



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Pre-Reading Activity

Whole group

Before you read *Join the No-Plastic Challenge!* with your class, do this icebreaker activity to warm up. Ask every student to answer these questions. It will be a fun way to get to know each other (if you're reading this book early in the school year) or to get to know one another *better* in terms of how each of you feels about planet Earth.

1. Going around the circle, ask children what their favorite outdoor place is and why.
2. Ask volunteers from the large group to tell you if they would rather walk, bike, drive or take the bus to school. Ask them why. Ask for volunteers until every answer has been discussed, or all the children have spoken.
3. Have kids stand up. Tell them you'll ask a question, and those who answer one way will move to the right side of the room, and those who answer the other way will move to the left side. Ask:
 - a) Would you rather live in a place that was freezing cold all the time, or a place that was roasting hot all the time?
Freezing cold to the right. Roasting hot to the left.
 - b) Have each group come up with a few reasons for their choice, and report back to you with their ideas.
4. Ask for children to raise their hands and volunteer to tell a story about a time they found plastic litter. Where was it, and what did they or their parents/guardian do?
5. Ask if children think plastic can be recycled.
6. Ask if they think plastic can decompose, or break down and become dirt.
7. Ask if they think all plastic is bad. Can anyone think of a good use for plastic? (Don't weigh in on their answers here — this will be discussed in the book and activities shortly.)

Now tell them it's time to read *Join the No-Plastic Challenge!* to learn more about single-use plastic, the problems it causes and some solutions to stop using it.

Activity 1: Reading for Story

Whole group

Depending on your students' reading abilities, either choral read *Join the No-Plastic Challenge!*, or read it aloud to the group. When you've read the book once through, engage with children in a discussion about each page spread, using the points below to focus your talk, if necessary.

- **Pages 4–5:** Why does Nick give his friends the challenge to go all day without using single-use plastic? (He's been learning about plastic pollution and wants to do something about it.)
- On **pages 6–7**, review the labeled items in the picture and ask students to point out when they're surprised to learn something is made of plastic. Did they know fleece jackets are made of plastic, or what part of the window curtains might be? What about chewing gum? Go around the room and ask if children will still want to chew gum now that they know it's made of plastic.

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- **Pages 8–9:** Ask if students know what “decompose” means (pg. 8). This word isn’t in the glossary, so review it with students before reading any further. *Decompose* is a verb that means “break down.”

Explain to children that only natural things can decompose — for example, leaves that fall off trees in the autumn decompose over time and turn into dirt. A banana peel tossed into a compost bin will decompose over time and enrich the soil for the garden.

Point out that products made from natural materials, like bamboo water bottles or seaweed containers, will also — eventually — decompose. They will take longer to do so than leaves or a banana peel, but they will become dirt, one day.

Explain that if it decomposes at all, plastic can take up to 500 years to do so. Point out that you will be learning more about this in the pages to come.

- **Page 10** says that store-bought food often comes in plastic. Can students think of things their parents or guardians buy at the grocery store that comes in plastic? (Answers might include: cookies, chips, ketchup and mayo bottles and even some fresh vegetables.)
- Point out the litter behind the ferry boat on **pages 12–13**, and ask children to think about where that comes from. (People throwing their trash into the ocean.) Now show children the map of the five ocean gyres in the corner of page 13. Where do they think the litter behind the ferry boat will eventually end up? (In one of the gyres.)
- **Pages 14–15:** Ask children to think about places where they see recycling bins and places where they don’t. Do they think it’s important to encourage businesses to add recycling bins to their properties? Why or why not?
Looking at the picture on page 15, ask students why the turtle might eat the plastic bag floating in the ocean. (It looks a lot like a jellyfish, and maybe turtles eat jellyfish. Children will be drawing conclusions — an important literacy skill — when they come to that answer.)
- **Pages 16–17:** What are some ways children could use the fourth R — refuse! — in their daily lives? (Answers might include saying no to straws and cups with lids, as Sally does; they could also refuse plastic water bottles, they could decide not to choose toys that come in plastic packaging, and they could ask their parents to shop using cloth bags instead of taking the plastic bags from the store.)

- Talk with the class about the pros and cons of plastic. After reading them **page 18**, point out that some plastics are necessary to improve the lives of some people, such as those who need wheelchairs or prosthetic limbs (which you may need to explain to some students). Other medical supplies, like oxygen tubes and sterilized needles, are made with plastic — and they save lives every day.
Distinguish between single-use plastics used to store food, water, or other products and the plastics that can be used over and over again or which help people in their jobs and lives.
- After reviewing all of the ways people are using less plastic than before, ask students the question at the bottom of **page 20**. Engage them in a discussion — and if children have a hard time thinking of actions where they live, help them think about making a difference themselves (see Activity Three — writing a letter to the editor).
- **Pages 22–23:** To help children understand how long 500 years really is, tell them that the United States, as a formal country, is not even 250 years old, and the confederation of Canada only happened about 150 years ago. Ask them to imagine what might happen in 500 years on Earth, and where all the plastic will go.
 - If students need a point of hope at this stage, explain that you will be doing an activity about recycling plastic shortly — so they can learn about how some of the plastic that has been made is being remade into new things, which avoids further production of new plastics. (See Activity Two: Recycle That Bottle)
- **Pages 24–25:** Explain to children that if they enjoy fish and chips, they don’t have to stop eating it. Fish raised in farms have considerably less plastic in their digestive tracks than wild-caught fish, because farmers control their diets and ensure their waters are clean. But for the sake of all living creatures in the ocean, plastics in the water have to be reduced and removed.
- **Pages 26–27:** Talk with children about what balloons are made of, and why some kites are better for the environment than balloons. But make sure children know that some kites are made of plastic, as are some streamers. If they want to host a no-plastics birthday party, they need to ask their parents/guardians to help ensure paper-only decorations.
- **Pages 28–29:** What are some words children can think of to describe Martin at the end of their day at the beach? (Possible answers: helpful, generous, thoughtful, enthusiastic.)
- **Pages 30–31:** Can the children think of any other ways they could avoid using single-use plastic in their daily lives? (One example is plastic sandwich bags, and the alternative might be reusable cloth-covered wrappers or sturdy, multi-use plastic containers or metal “bento-box” style lunch boxes.) Also talk with children about other ways they can help the environment — discuss composting, recycling, reduced-meat diets, etc.

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Activity 1: Recycle That Bottle Individual Work

Materials:

- Poster board
- Colorful markers or paints
- Pens and pencils

Explain to students that they will make posters to advertise the steps it takes to recycle plastic. These steps will show why it's so important to recycling single-use plastic, such as water bottles, so that they don't add to the gyres in the oceans or to landfills.

Tell students that recycling plastic takes many steps. Write each step on the board and explain to them what happens during each one. Students will then work on individual art projects that show the steps of recycling a plastic bottle.

These posters can be hung up around the school to advertise recycling bins in the schools or public parks of your community. Encourage students to think about how they want to make their poster — do they want to illustrate all seven steps, or just one or two? They should be encouraged to make some sketches on paper before they begin with their final posters.

Each student's final product should be a colorful poster with a title, such as:

WHAT HAPPENS TO THAT PLASTIC BOTTLE AFTER YOU THROW IT IN THE BIN?

Step 1: Plastic bottles are collected from homes, businesses and schools.

Step 2: Every single plastic bottle is separated from other recyclables like metal and glass.

Step 3: Plastic bottles are cleaned to remove any food, liquid, or chemicals.

Step 4: All the plastic bottles are ground up and shredded into small plastic flakes, about the size of breakfast cereal.

Step 5: The plastic flakes are melted down and formed into small pellets. The pellets are the size of a grain of rice!

Step 6: Huge amounts of plastic pellets are bundled up and sold to companies that want to make things out of plastic — like more bottles, or even toys and other products.

Step 7: The plastic pellets are melted down again, and turned into tools, electronic devices, and many other plastic items in your home.

Conclusion: Recycling matters! The more plastic that can be reused, the less new plastic has to be created!

Activity 3: Dear Editor! Small Groups

Note: For students who are too young to work in small groups and make notes or write sentences, choose one topic and use the template to write a letter from the whole class. In this case, the teacher will do most of the reading and writing, but always with ideas and encouragement from the children.

Before you split the whole group into smaller groups of three to five students, brainstorm some ideas about positive ways to reduce plastic use or other ways to help save the environment. Encourage students to think beyond their own homes and imagine a way they could make a difference in their larger community. Keep a list on the board, and help students if they get stuck.

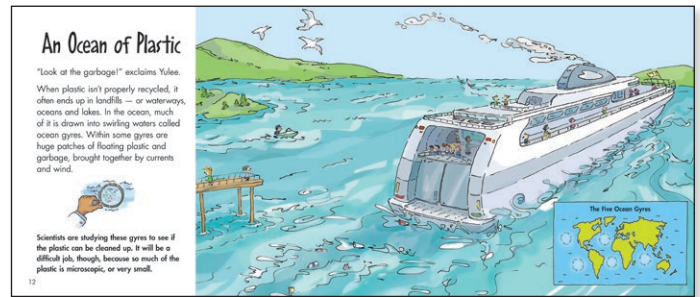
Some ideas are:

- Composting at all public schools
- Putting recycling bins (not just trash bins) in public parks
- Banning single-use plastic bags at the grocery store
- Installing solar panels on all public buildings

Now divide the class into small groups. Assign one topic to each group. Depending on their age and knowledge on the topic, students may need help doing a bit of research. Work with each group to do some internet searches on each topic, and have one student take notes (or keep notes for very young students on the board).

Have each group brainstorm a list of ideas about their topic, and then photocopy the template on the following page so that each group has one. They can use it to write a letter to the editor of their local newspaper.

Before concluding this activity, bring everyone back together and have each group read their letter or present their ideas to the larger class.



Activity 3: Dear Editor!

Brainstorm ideas about your topic:

Template for your letter to the editor:

Dear Editor,

I am writing because I think our town should _____.
(Insert your topic. For example: ban single-use plastic bags at the grocery store.)

There are so many reasons this will help the environment. Some of them are:

To conclude, I want everyone in our town to know that the best thing we can do for the earth is _____
_____. (Re-state your topic here.)

Thank you for your time.

Sincerely,
(names and ages of all the children in this group)

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Activity 4: Compost Crazy

Whole Group

Note: This activity will take about an hour to build, and then about two months to see to completion. After the initial day's activity, it only requires regular watering and optional photos to record how things progress during the eight-week cycle.

Begin by reminding students that the class talked briefly about composting at the end of the book. Explain to the whole group of children that composting is another way to be good to the planet (just like rejecting the use of single-use plastics). It reduces what goes to the landfill!

Say: Compost is made when food scraps, garden and grass clippings, and paper products such as cardboard all rot and decompose. These materials are biodegradable, which means they break down when left outside. Organisms like bacteria, worms and bugs all help these materials decompose. They help by eating this stuff! When organisms use food and garden waste, as well as some kinds of paper, as food, it turns into compost. After a while, a brown crumbly mixture that looks and smells like dirt is left where the food and garden waste used to be. It is some of the richest soil on Earth and it makes wonderful dirt for growing a garden. In this activity, we will make our own compost!

Divide the group in small working groups of three or four students, and provide one set of materials to each group.

Materials:

- One empty two-liter soda bottle
- Scissors
- Soil
- Water spray bottle
- Organic kitchen garbage (ex. vegetable or fruit peels, tea bags, leftover uncooked food)

One good way to remember what is compostable is that you shouldn't put anything in the compost that your dog would eat. No meat or bread, for instance.

Step 1: Remove the label from the soda bottle and rinse it clean. Cut the top off the bottle, so that what is left is the base and a wide mouth.

Step 2: Add a cup of soil into the bottom of the bottle.

Step 3: Now add a cup of kitchen garbage and food scraps.

Repeat steps 2 and 3 until the bottle is full. The last layer should be a layer of soil.

Step 4: Once the bottle is full, spray with water until the top layer is damp.

Step 5: Place the bottle in a sunny spot. Continue to spray the top with water as it dries out. It should always be damp, but never too wet.

Step 6: Watch as the kitchen garbage and food scraps decompose! Soon they will turn to soil.

Note: The whole bottle won't turn to compost for about eight weeks, so encourage students to be patient. They can take photos of their bottles once a week and compare the changes over time.

Finishing up:

Students can take their compost home and add it to houseplants or the family garden, or the class can use all of the bottles of compost to begin their own school garden.



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Activity 5: Plastic Replacement Bingo!

Whole Group

Print out the bingo cards on the following five pages. If you have more than 10 students, make multiple copies — just ensure that students sitting next to each other don't have the same sheet.

Also print out or write down the following list of items, putting one item on each of 10 small pieces of paper that you can put in a hat or a bag.

Plastic Grocery Bags	Plastic Plates
Plastic Produce Bags	Plastic Food Container
Plastic Clothing Hangers	Plastic Food Wrap
Plastic Water Bottle	Plastic Straw
Plastic Cutlery	Plastic Sandwich Bag

Explain the rules of bingo. Say: On each piece of paper in this bag is named one plastic item that you could reject the next time you're offered it. I will reach into this bag and pull out one piece of paper. When I say the name of the item out loud, look on your bingo cards for the non-plastic replacement item you could choose instead. Draw an *X* through the item. The first ones to make a straight line of three *X*'s, up, down, or diagonally, wins!

Note: Not all ten items are listed on each bingo card.

Answer Key:

Plastic Grocery Bags	Reusable Grocery Bags
Plastic Plates	Compostable Paper Plates
Plastic Produce Bags	Mesh Produce Bags
Plastic Food Container	Stainless Steel Food Container
Plastic Clothing Hangers	Wooden Clothing Hangers
Plastic Food Wrap	Beeswax Wrap
Plastic Water Bottle	Glass Water Bottle
Plastic Straw	Metal Straw
Plastic Cutlery	Wooden Cutlery
Plastic Sandwich Bag	Cloth Sandwich Bag

PLASTIC REPLACEMENT BINGO!

Reusable Grocery Bags	Compostable Paper Plates	Mesh Produce Bags
Stainless Steel Food Container	Wooden Clothing Hangers	Beeswax Wrap
Glass Water Bottle	Metal Straw	Wooden Cutlery

PLASTIC REPLACEMENT BINGO!

Wooden Clothing Hangers	Beeswax Wrap	Glass Water Bottle
Cloth Sandwich Bag	Mesh Produce Bags	Compostable Paper Plates
Metal Straw	Reusable Grocery Bags	Stainless Steel Food Container

PLASTIC REPLACEMENT BINGO!

Wooden Clothing Hangers	Mesh Produce Bags	Wooden Cutlery
Glass Water Bottle	Metal Straw	Reusable Grocery Bags
Stainless Steel Food Container	Beeswax Wrap	Cloth Sandwich Bag

PLASTIC REPLACEMENT BINGO!

Beeswax Wrap	Stainless Steel Food Container	Wooden Cutlery
Reusable Grocery Bags	Cloth Sandwich Bag	Mesh Produce Bags
Glass Water Bottle	Compostable Paper Plates	Wooden Clothing Hangers

PLASTIC REPLACEMENT BINGO!

Compostable Paper Plates	Cloth Sandwich Bag	Metal Straw
Wooden Clothing Hangers	Stainless Steel Food Container	Glass Water Bottle
Beeswax Wrap	Mesh Produce Bags	Reusable Grocery Bags

PLASTIC REPLACEMENT BINGO!

Compostable Paper Plates	Glass Water Bottle	Stainless Steel Food Container
Reusable Grocery Bags	Cloth Sandwich Bag	Beeswax Wrap
Wooden Cutlery	Mesh Produce Bags	Metal Straw

PLASTIC REPLACEMENT BINGO!

Wooden Clothing Hangers	Beeswax Wrap	Glass Water Bottle
Cloth Sandwich Bag	Mesh Produce Bags	Compostable Paper Plates
Metal Straw	Reusable Grocery Bags	Stainless Steel Food Container

PLASTIC REPLACEMENT BINGO!

Wooden Cutlery	Metal Straw	Compostable Paper Plates
Reusable Grocery Bags	Cloth Sandwich Bag	Stainless Steel Food Container
Beeswax Wrap	Wooden Clothing Hangers	Glass Water Bottle

PLASTIC REPLACEMENT BINGO!

Compostable Paper Plates	Metal Straw	Mesh Produce Bags
Cloth Sandwich Bag	Reusable Grocery Bags	Wooden Clothing Hangers
Beeswax Wrap	Stainless Steel Food Container	Wooden Cutlery

PLASTIC REPLACEMENT BINGO!

Wooden Clothing Hangers	Beeswax Wrap	Glass Water Bottle
Cloth Sandwich Bag	Mesh Produce Bags	Compostable Paper Plates
Metal Straw	Reusable Grocery Bags	Stainless Steel Food Container