

WRITTEN BY ELISE MOSER AND ILLUSTRATED BY SCOT RITCHIE

AN ACTIVITY GUIDE FOR GRADES 3, 4 AND 5

** THE ACTIVITIES IN THIS GUIDE ALIGN WITH ENGLISH LANGUAGE ARTS STANDARDS FOR GRADES 3, 4 AND 5, BUT STANDARDS FOR OTHER GRADES MAY ALSO APPLY.*

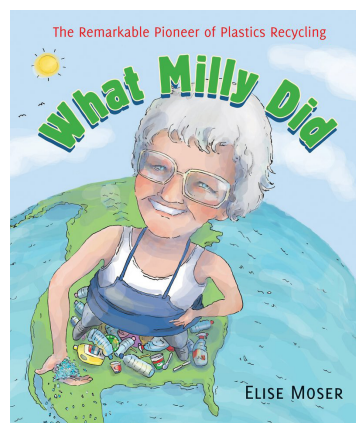
ABOUT THE BOOK

Milly Zantow wanted to solve the problem of her town's full landfill and ended up creating a global recycling standard — the system of numbers you see inside the little triangle on plastics. This is the inspiring story of how she mobilized her community, creating sweeping change to help the environment.

On a trip to Japan in 1978, Milly noticed that people were putting little bundles out on the street each morning. They were recycling — something that hadn't taken hold in North America. When she returned to Sauk City, Wisconsin, she discovered that her town's landfill was nearing capacity, and that plastic made up a large part of the garbage. No one was recycling plastics.

Milly decided to figure out how. She discovered that there are more than seven kinds of plastic, and they can't be combined for recycling, so she learned how to use various tests to identify them. Then she found a company willing to use recycled plastic, but the plastic would have to be ground up first.

Milly and her friend bought a huge industrial grinder and established E-Z Recycling. They worked with local school children and their community, and they helped other communities start their own recycling programs. But Milly knew that the large-scale recycling of plastics would never work unless people could easily identify the seven types. She came up with the idea of placing an identifying number in the little recycling triangle, which has become the international standard.



WHAT MILLY DID
Written by Elise Moser
Illustrated by Scot Ritchie

JUVENILE NONFICTION
Grades 3 - 5 | 8" x 6.75" | 48 pages

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Milly's story is a glimpse into the early days of the recycling movement and shows how, thanks to her determination, hard work and community-building, huge changes took place, spreading rapidly across North America.

ABOUT THE AUTHOR

Elise Moser was born in Brooklyn and spent her childhood in small-town New Jersey. She moved to Montreal and did an English degree at McGill University, then worked at Paragraphe Bookstore for many years. She went on to become a long-time sales rep for American university presses.

Elise's short stories have been published in Canada and the US, and her adult novel, *Because I Have Loved and Hidden It*, was praised by the *National Post* as "[an] ambitious and artfully woven debut novel." Her young adult novel, *Lily and Taylor*, received a starred review from *Kirkus*.

Elise was president of the Quebec Writers' Federation (2009–2012) and is also an editor. She presently divides her time between Montreal and Sauk City, Wisconsin.

ABOUT THE ILLUSTRATOR

Scot is an award-winning illustrator and author with more than 50 books to his credit. His books have been translated into French, Korean, Indonesian, Polish, Finnish, Arabic and Dutch. Scot has worked with the National Film Board of Canada and has had his illustrations exhibited at the National Gallery of Canada. He lives in Vancouver.

PRAISE

"Required reading for young eco-activists."

– *Kirkus*

"The inspiring story of Milly Zantow and her groundbreaking work in plastics recycling is well told in this slim volume."

–*School Library Journal*

PRE-READING QUESTIONS & ACTIVITIES

The subtitle of this book is: “The Remarkable Pioneer of Plastics Recycling.” What does it mean to be a pioneer? What does it mean in this context?

Discuss the difference between recycling material and throwing it away. What do students recycle at school? At home?

Why is it important to recycle? What do students think about recycling?

VOCABULARY

There are some technical terms used in this book (e.g., PET) and some vocabulary that is domain-specific to plastics and recycling. As students read the book, have them keep a record of words they don't know or words used in an unfamiliar way. Have students derive the meanings from context, then look the words up in the glossary in the back of the book as well as in the dictionary. How are the definitions in the glossary different from those in the dictionary? Are there other words with similar meanings the author could have used instead?

POST-READING QUESTIONS & ACTIVITIES

Fact Scavenger Hunt

Have students test their comprehension by answering the following questions and recording the number of the page where the answer is located. Come together as a class and discuss their answers.

Where did Milly first see recycling in action?

How did Milly get the money to buy her first plastic chipper?

When did plastics first begin to gain popularity?

Why did Milly go to Japan?

What did Milly learn about manufacturing plastic jugs that made her realize some of them could be recycled?

What were the advantages of recycling Milly emphasized in her presentations?

In what state did Milly establish her first recycling company?

How many categories of plastic resin are there and what are they named?

What was the Plastiki?

What is a nurdle?

What are most plastics made of?

How did marking every plastic item with a number aid in the recycling process?

For More Information...

This book includes tools to help readers locate critical information quickly and efficiently. As a class, review the following sections: Glossary, the Table of Plastic Resins, For Further Reading, Selected Sources, Source Notes, Acknowledgments and Index. Why are each of these elements included? How do they work together to enhance the reader's experience with the text, deepen their knowledge of the topic and help them locate information in the book?

Putting It In Perspective

What Milly Did provides a historical context for recycling and shows how Milly influenced the modern recycling movement. Break students into small groups and have them review the book to identify ways in which Milly's parents and their generation reused things and why they did it. According to the text, what happened to cause Americans to change the way they acted? How did Milly and others like her influence the way we think about trash and recycling today?

Timeline

Milly's success didn't happen overnight. She worked very hard and took things one step at a time. Break students into small groups and have them review the text to create a list of the major events in Milly's life that played a role in establishing nationwide plastics recycling standards (e.g., Milly visiting Japan or buying her first grinder). Come together as a class to compare and contrast the different timelines. Identify the cause-and-effect relationship between events and have groups discuss why they included the events they did. Work together to create one master timeline and post it in the classroom.

The Book and the Film

After they have read the book have students watch the short film *Plastics One Through Seven* about Milly Zantow available on YouTube. Discuss the following issues as a class: How do the two different mediums present the information? What parts of the story were told by both the book and movie? What parts were told in one format only? What aspects of Milly's story were conveyed most effectively by each medium?

Report By the Numbers

Break students into seven different groups, one for each of the plastics recycling categories. Using several digital and print resources, have each group prepare a report and presentation about their category to share with the class. Have them include such information as: the scientific name of their category of plastic, what it is used for, whether it is recycled in the local community, how it is recycled and what it is recycled into. Their presentation should include a video from the Web showing the process of recycling their plastic. Each group should also bring in an object made from their plastic to pass around the class. After they have presented their findings to the class, have each group submit a summary of their report as a computer file, including links to the video, resource materials and references. Compile these into a single computer-based document or Web page and make it available to the whole school.

Exploring the Sidebars

Invite a representative from your local recycling center to come talk to the class. Have each student prepare at least one thoughtful question for the guest, either about the process of recycling in general or how it works in your community. When the presentation has concluded, gather as a class to summarize the speaker's main points, the reasons and evidence used to support these claims and how students feel about what the speaker told them.

The Importance of Being Milly

Have students write a paper detailing the progress Milly Zantow made in advancing recycling, both in her community and nationwide. What changes did she bring about and how did she do it? What do students think was the author's main

message or messages? Have them identify specific reasons and evidence from the text to support their interpretation. Allow time for students to review and revise their papers as necessary before submitting their final copy.

Milly Inspires Us Still

The story of how Milly rallied her community and, through creativity, hard work and determination, created sweeping change to help the environment is probably new to students. Is Milly an inspirational figure, or do students not relate to her and her story? Are the lessons of her life applicable to students or irrelevant? Have students write a personal opinion paper describing how Milly's story makes them feel about an individual's ability to change the world. Break them into pairs to review each other's work and revise their papers based on peer feedback before submitting a final version.

FOR REFERENCE

Check out the reference section in the back of the book for a list of resources including websites, reference materials and further reading suggestions.

COMMON CORE STATE STANDARDS USED IN THIS GUIDE

Reading Standards for Informational Text GRADE 3

Key Ideas and Details

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Determine the main idea of a text; recount the key details and explain how they support the main idea.

Describe the relationship between a series of historical events, scientific ideas or concepts or steps in technical procedures in a text, using language that pertains to time, sequence and cause/effect.

Craft and Structure

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.K.6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story

Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

Integration of Knowledge and Ideas

Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why and how key events occur).

Compare and contrast the most important points and key details presented in two texts on the same topic.

Writing Standards GRADE 3

Text Types and Purposes

Write opinion pieces on topics or texts, supporting a point of view with reasons.

- Introduce the topic or text they are writing about, state an opinion and create an organizational structure that lists reasons.
- Provide reasons that support the opinion.
- Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.
- Provide a concluding statement or section

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
- Develop the topic with facts, definitions and details.
- Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.
- Provide a concluding statement or section.

Production and Distribution of Writing

With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.

With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising and editing.

With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.

Research to Build and Present Knowledge

Conduct short research projects that build knowledge about a topic.

Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Speaking and Listening Standards Grade 3

Comprehension and Collaboration

Engage effectively in a range of collaborative discussions (one-on-one, in groups and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.

- Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- Ask questions to check understanding of information presented, stay on topic and link their comments to the remarks of others.
- Explain their own ideas and understanding in light of the discussion.

Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively and orally.

Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

Presentation of Knowledge and Ideas

Report on a topic or text, tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.

Language Standards Grade 3

Vocabulary Acquisition and Use

Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.

- Use sentence-level context as a clue to the meaning of a word or phrase.
- Determine the meaning of the new word formed when a known affix is added to a known word (e.g., agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat).
- Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., company, companion).
- Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.

Grade 4

Reading Standards for Literature (Grade 4)

Integration of Knowledge and Ideas

Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.

Reading Standards for Informational Text Grade 4

Key Ideas and Details

Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

Determine the main idea of a text and explain how it is supported by key details; summarize the text.

Explain events, procedures, ideas or concepts in a historical, scientific or technical text, including what happened and why, based on specific information in the text.

Craft and Structure

Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

Integration of Knowledge and Ideas

Interpret information presented visually, orally or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

Explain how an author uses reasons and evidence to support particular points in a text.b. Decode regularly spelled one-syllable words.

Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

Writing Standards Grade 4 (W)

Text Types and Purposes

- Introduce a topic or text clearly, state an opinion and create an organizational structure in which related ideas are grouped to support the writer's purpose.
- Provide reasons that are supported by facts and details.
- Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition).
- Provide a concluding statement or section related to the opinion presented.

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations and multimedia when useful to aiding comprehension.

- Develop the topic with facts, definitions, concrete details, quotations or other information and examples related to the topic.
- Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).
- Use precise language and domain-specific vocabulary to inform about or explain the topic.
- Provide a concluding statement or section related to the information or explanation presented.

Production and Distribution of Writing

Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

Research to Build and Present Knowledge

Conduct short research projects that build knowledge through investigation of different aspects of a topic.

Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information and provide a list of sources.

Speaking and Listening Standards Grade 4

Comprehension and Collaboration

Engage effectively in a range of collaborative discussions (one-on-one, in groups and teacherled) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.

- Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- Follow agreed-upon rules for discussions and carry out assigned roles.

- Pose and respond to specific questions to clarify or follow up on information and make comments that contribute to the discussion and link to the remarks of others.
- Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively and orally.

Identify the reasons and evidence a speaker provides to support particular points.

Presentation of Knowledge and Ideas

Report on a topic or text, tell a story or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.

Language Standards Grade 4

Vocabulary Acquisition and Use

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.

- Use context (e.g., definitions, examples or restatements in text) as a clue to the meaning of a word or phrase.
- Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph).
- Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

GRADE 5

Reading Standards for Literature Grade 5

Integration of Knowledge and Ideas

Analyze how visual and multimedia elements contribute to the meaning, tone or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).

Reading Standards for Informational Text Grade 5

Key Ideas and Details

Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.

Craft and Structure

Explain the relationships or interactions between two or more individuals, events, ideas or concepts in a historical, scientific or technical text based on specific information in the text.

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area.

Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.

Integration of Knowledge and Ideas

Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).

Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.

Writing Standards Grade 5 (W)

Text Types and Purposes

Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

- Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
- Provide logically ordered reasons that are supported by facts and details.
- Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically).
- Provide a concluding statement or section related to the opinion presented

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- Introduce a topic clearly, provide a general observation and focus and group related information logically; include formatting (e.g., headings), illustrations and multimedia when useful to aiding comprehension.
- Develop the topic with facts, definitions, concrete details, quotations or other information and examples related to the topic.
- Link ideas within and across categories of information using words, phrases and clauses (e.g., in contrast, especially).
- Use precise language and domain-specific vocabulary to inform about or explain the topic.
- Provide a concluding statement or section related to the information or explanation presented.

Production and Distribution of Writing

Produce clear and coherent writing in which the development and organization are appropriate to task, purpose and audience.

With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting or trying a new approach.

With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

Research to Build and Present Knowledge

Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic

Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.

Speaking and Listening Standards Grade 5

Comprehension and Collaboration

Engage effectively in a range of collaborative discussions (one-on-one, in groups and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

- Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- Follow agreed-upon rules for discussions and carry out assigned roles.
- Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
- Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions

Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively and orally.

Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.

Presentation of Knowledge and Ideas

Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

Language Standards Grade 5

Vocabulary Acquisition and Use

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.

- Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.
- Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis).
- Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

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