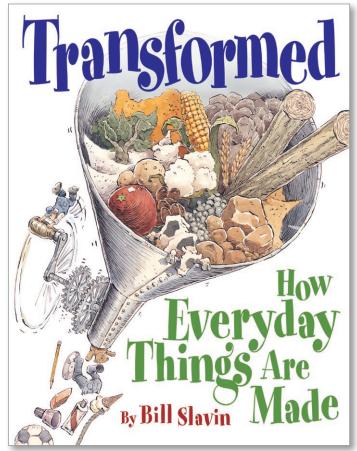
About the Book

CDs start out as sand. Blackboard chalk comes from tiny sea creatures. The objects all around us — every single product in the world — are made from elements found in nature. Discover how nature is transformed into more than 60 things we eat, drink, play with, wear or use every day. Technology changes constantly, but the stages raw materials go through to become finished objects remain much the same. On every page of this big book these processes are described and illustrated step by step. The text and artwork combine playfulness with encyclopedic attention to detail. This unique and fascinating book will inform and entertain every step of the way. Includes a glossary, index and further resources to help children, parents and teachers.

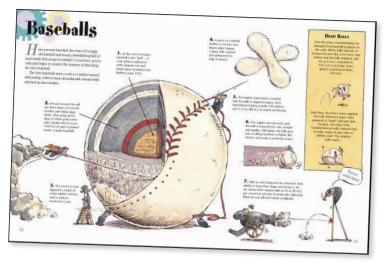
About the Author

BILL SLAVIN was born on February 12, 1959, in Belleville, Ontario, as the seventh of eight children. He illustrated his first book, *The Adventures of Zok the Caveman*, when he was seven years old. It was published in an edition of one. He has been writing and illustrating ever since. He has illustrated over one hundred children's books, fiction and nonfiction, including *Stanley's Party* by Linda Bailey, winner of the 2004 Blue Spruce Award, the Christie Harris Illustrated Children's Literature Prize and the Amelia Frances Howard-Gibbon Illustrator's Award.

He has illustrated more than 100 children's books, including *Trash Revolution: Breaking the Waste Cycle, Drumheller Dinosaur Dance* and the Time Travel Guides series by Linda Bailey. In 2014, he completed his Elephants Never Forget graphic novel trilogy, fulfilling a lifetime desire to return to the world of comic books that he had inhabited in his youth.



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About This Resource

This resource is anchored in **critical consciousness literacy**¹.

What is critical consciousness literacy anyway?

Many educators may be familiar with critical literacy. **Critical literacy** embraces the belief that every text, whether a picture book or an essay, needs to be a platform to better read and understand the world. Only when young people are afforded the opportunity to read the world do they have the capacity to create a better one.

1 "Critical Consciousness Literacy" is a term anchored in the work of Paulo Freire (2004) combined with the critical consciousness tenet in the work of Ladson-Billings (2002) in *Culturally Relevant Pedagogy*. (Gaymes-San Vicente, A. & A. Te, TDSB Presentation, Spring 2017)



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Where does culturally relevant pedagogy fit in?

A key principle of **Culturally Relevant and Responsive Pedagogy**² is that students see themselves in the learning and know that who they are is valued. When children engage in any form of literacy where they feel connected and their educational needs are being met, learning will take place. As well, a curriculum that provides opportunities to envision diverse ways of being and lived realities gives students opportunities to learn about other experiences and builds both understanding and respect.

This brings us to **Critical Consciousness Literacy**, which asks us to focus on the child by embracing both culturally relevant and responsive pedagogy and critical literacy. Students' development of a "critical consciousness" in their acquiring of critical literacy skills is crucial in that it is this "consciousness" that results in an awareness of the culture and the dynamics of societal power. Understanding oneself in relation to societal power means

CRITICAL LITERACY means ...

- Recognizing that texts contain certain perspectives and biases
- Recognizing that point of view influences how a text is interpreted and understood
- Determining whose voices are present or absent
- Evaluating multiple perspectives for bias, reliability, fairness and validity
- Analyzing how language is used
- Taking a stance and engaging in a response in the interest of equity, fairness and social justice
- Using technology to see divergent perspectives, interact with authentic audiences, and express ideas — Adolescent Literacy Guide (2016), p. 26

exploring concepts such as social identities, stereotyping, bias, discrimination, privilege and marginalization. This then prepares students to become agents of social change, giving them the wherewithal to challenge the status quo and to be proactive toward social justice issues. Therefore, a **pre-activity** was designed to support the building of connection between the text and the reader. This pre-activity, which contains a component for the teacher and a separate one for the students, is foundational to this guide.

	Grade	Theme	High-Yield Strategies
Pre-Activity	A11	Making It Stick	 Comparing and contrasting Cooperative learning Higher-order thinking Reinforcing effort and providing recognition
Activity 1	K-8	Invent and Inquire	 Identifying similarities and differences Cooperative learning Nonlinguistic representations Comparing and contrasting Higher-order thinking Reinforcing effort and providing recognition Generating and testing hypothesis
Activity 2	K-8	Create It!	 Identifying similarities and differences Cooperative learning Nonlinguistic representations Comparing and contrasting Higher-order thinking Reinforcing effort and providing recognition Generating and testing hypothesis
Activity 3	K-8	Inquire About It!	 Identifying similarities and differences Cooperative learning Nonlinguistic representations Comparing and contrasting Higher-order thinking Reinforcing effort and providing recognition Generating and testing hypothesis

Overview

2 "A nuanced approach to challenging the power and privilege that remain within our school walls can be seen in the fusion of *Culturally Relevant Pedagogy* (Ladson-Billings) and *Culturally Responsive Teaching* (Geneva Gay). These two distinct bodies of research (building on the work of Paulo Freire and his dialogic teaching, discussed more fully below) have recently been fused together by curriculum activists at the Centre for Urban Schooling at OISE/University of Toronto, into what has become known as Culturally Responsive and Relevant Pedagogy (CRRP)." (Clanfield et. al., 2014, p. 268)

Pre-Activity — Making It Stick

TEACHER REFLECTION

Children learn best when learning is relevant and meaningful for them. Using critical literacy as well as a culturally relevant and responsive approach, this activity is designed to support students by creating meaning and connections to the picture book. Therefore, this essential pre-activity begins with an opportunity for teacher reflection prior to engaging in the pre-activity with the students. "Teaching for critical literacy empowers students to be active thinkers, to look at the world from multiple perspectives and to develop questioning habits that encourage them to think and act on their decisions."

— Adolescent Literacy Guide (2016), p. 26

"Developmentally appropriate and culturally responsive program planning is therefore essential in facilitating literacy learning experiences ... learning opportunities that we design need to be grounded ... in intentional consideration of who our learners are and what experiences will enable them to learn, adapt and achieve literacy success."

— Paying Attention to Literacy, p. 3

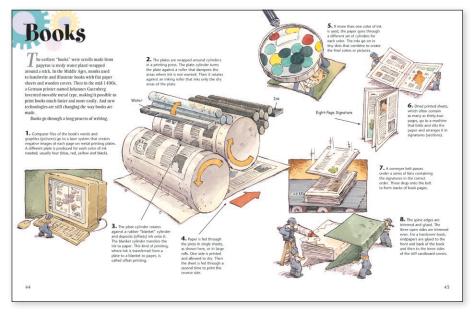
LEARNING GOAL

Teachers will learn to recognize who is automatically included and positively valued through the use of *Transformed*. For any reader, connection to the book can take place through social identities. Social identities include, but are not limited to: race, indigeneity, sexual orientation, social class, gender identity and language. Those who feel connected to the book are more likely to be engaged. Therefore, this knowledge is essential, as it allows you to consider how to create inclusion for those who are not automatically included.

- 1. Consider your favorite picture book or novel something that you really enjoyed reading.
- 2. On the "Making It Stick" chart, Appendix A, complete Section A.
- 3. Read *Transformed* with the following question in mind: How do you feel personally connected to *Transformed* through the text, pictures, messages or characters?
- 4. On the "Making It Stick" chart, Appendix A, complete Section B.
- 5. Review the elements of the book (content, pictures, character gender/race etc.) that gave you automatic inclusion, or not. Recognize that students who automatically and positively connect to the book (through any social identity) have an advantage as their connection can allow them to more readily engage in and demonstrate comprehension through subsequent activities. Their connection can allow them to engage in subsequent activities more readily. It becomes

imperative for you to create a connection for those students who do not automatically connect. This connection can be the difference between engagement and disengagement as well as equal access to the learning.

- 6. Review the first two columns of the "Guiding Questions for Critical Literacy and Culturally Responsive Teaching" chart, Appendix B.
- 7. Review a list of students who you intend to use this book with. Consider which students might struggle to connect to the book.
- 8. On the "Making It Stick" chart, Appendix A, complete Section C.



Pre-Activity

- 1. Show students the cover of *Transformed*.
- 2. Slowly leaf through the pages so that students can see the pictures.
- 3. Post the following connection prompts on chart paper:
 - This reminds me of ... The title makes me think of ...
 - The picture looks like ... Other
- 4. Depending on the grade, ask students to articulate orally, through writing or through visual art how they connect with the front cover or the pictures in the book.
- 5. Make an intentional effort to check in with the students recorded in Section C of the "Making It Stick" chart who may struggle to connect with the book.
- 6. Identify, post and review key or unfamiliar words from Transformed.

EXTENSION ACTIVITY

A great learning opportunity for everyone might be to explore what the front cover would look like if each child were to design it. Using an age-appropriate art medium (paint, clay, plasticine, etc.), have students redesign the cover to create something that they feel includes them.

Activity 1: Invent and Inquire

OVERVIEW

Transformed is an intriguing book about ingenuity and creativity. It highlights how the things we think are mistakes can lead to brilliant inventions (such as chewing gum)! It also reminds us that the things we think make perfect sense can evolve and get better over time (like the soccer ball)! In the following two activities, students will explore two different ways to investigate, think, explore and awaken the critical mind. First, students will consider a problem of interest to them and brainstorm an invention that can solve it. Second, students will make an inquiry about a question that can solve a problem, save time or make society a better place!

LEARNING GOAL

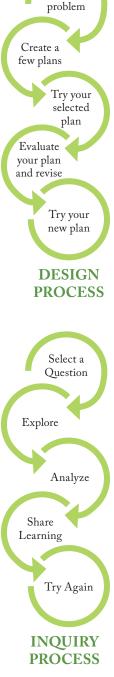
Using creativity, students will engage in two different processes to invent and inquire.

ACTIVITY

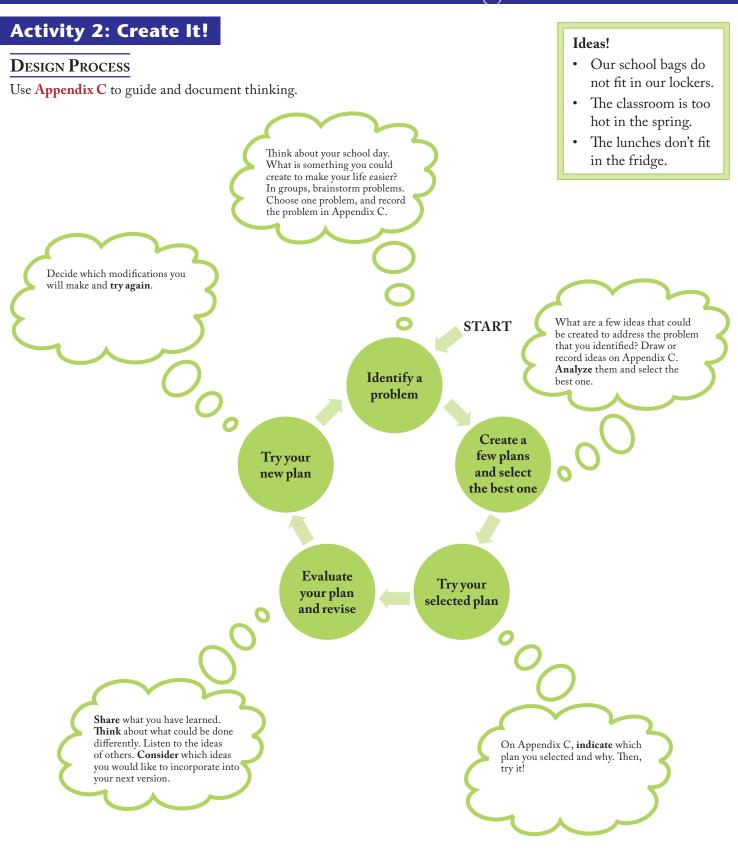
- 1. Complete the student pre-activity, "Making It Stick." **Note to Educator:** If it is not possible to complete the pre-activity, review Appendix B and proceed to step 2. If you have engaged in the pre-activity, skip to step 3.
- 2. If you have not completed the pre-activity, show the cover of *Transformed*. Ask students what they think the book will be about. This will allow students to share thoughts, make connections and activate prior knowledge.
- 3. Based on your students, choose two inventions to read about from two different sections in Transformed.
- 4. Before reading the two sections, provoke thinking with the following questions: "Who has made a mistake?" and "Who has changed something to make it better?" **Note to Educator:** The point of the questions is to validate that learning comes from mistakes. It is also a reminder that improving something means thinking and refining.
- 5. Read the selected sections from *Transformed*.
- 6. Identify, post and review key or unfamiliar words from the two inventions that you are reading to the students from *Transformed*.
- 7. Have students list the top five inventions in their house, school and one other place that is important to them.

CONSOLIDATION

Have students present the inventions or the inquiries to the class or other classes.



Identify a





Appendix A: Making It Stick

Section A						
PROMPT	Consider vour favorite pictu	re book or novel — s	omething that you really enjoyed reading.			
	of your favorite picture books of					
	e connections you were able to					
	·					
Section B						
PROMPT	How do you feel personally	connected to Transfor	<i>rmed</i> through			
	the text, pictures, messages or characters?					
Consider some the	following social identities:					
Race	Sexual orientation	Social class	Indigeneity			
Gender identity	Language	Religion	Others			
Ethnicity	Culture	Abilities				
How many of these	e identities created a sense of in	clusion for you?				
-		-				
Section C						
PROMPT	Are there students who mig	ht struggle to connec	to the book?			
	of students who will be include	00				
Description and the second	C. (] (1 1] .					
Record the names of	or students who will be exclude	ed because they are co	onnected to less than four social identities.			
Consider how you	might include them.					
			Adapted from © A. Gaymes-San Vicente & A. Te, 202			

Appendix B: Guiding Questions for Critical Literacy and Culturally Responsive Teaching

	Questions to consider PRIOR to using the book	Questions to consider PRIOR to leading an activity
What is being reinforced? Thinking about bias and stereotypes	 What are your biases? (We all have biases about race, class, gender identity, ability, sexual orientation, etc.) How might your personal beliefs and bias influence your understanding of this text? What stereotypes, as well as conscious and unconscious biases, are present in the book? What other resources can you integrate? 	 How can you challenge conscious and unconscious biases in the book? How can you challenge stereotypes in the book? What other resources can you integrate? What stereotypes might students have in relation to this text?
What is the connection? Thinking about inclusion	 Who will connect most with the main characters in this book? Who will connect most with the social identities of the main characters in the book? Who will connect most with the story and main ideas in the book? 	• How can you support all students to make a personal and meaningful connection to the book?
Who benefits most? Thinking about power and privilege	 Are male, female or transgender voices most present? What race or culture is most present? Are different abilities valued? Whose voices are missing? Who has the power and privilege? What is the historical context of the book? 	 How can you include the missing voices? How can you address issues of power and privilege in the book? How can you contextualize the book to engage more diverse lived experiences and values? How might you address conflicting viewpoints and values? How might you validate underrepresented voices?
How do we make a difference? Thinking about personal impact	 What stereotypes or biases does this book challenge? For what issues of social justice can this book serve as a springboard? 	• How might you raise awareness of social justice issues that students are unfamiliar with or invested in?

Adapted from © A. Gaymes-San Vicente & A. Te, 2017

Appendix C: Design Process

Stage 1: Identify the problem.

Brainstorm common problems. Select one to solve. What is the problem you are trying to solve?

Stage 2: Create a few plans and select the best one. Based on collective thinking and information, create and analyze at least 3 plans.



Stage 3: Try your selected plan. Indicate which plan you selected and why. Then try it!

Stage 4: Evaluate your plan and revise.

Record key ideas that would improve your plan. Evaluate your plan and model by presenting to others and listening to feedback.



Stage 5: Try your new plan!

Explain what is different about this plan. Improve your design.



Appendix D: Inquiry Process

Stage 1: Selection of inquiry question.

Create an authentic question. What do I want to know? The question should not have a yes or no answer, but more than one possible answer.



Stage 2: Explore

Find resources and information to help answer the question.



Stage 3: Analyze What information is relevant? What helps me answer my question?



Stage 4: Share Learning Share what you have learned.



Stage 5: Try Again How would you improve your inquiry process next time?



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NOTES: