

PICTURING PERCEPTION: HOW THE ENVIRONMENT IS
PORTRAYED IN POPULAR CHILDREN'S LITERATURE

by
OLIVIA BLACK

A THESIS

Presented to the Department of Environmental Studies
and the Robert D. Clark Honors College
in partial fulfillment of the requirements for the degree of
Bachelor of Arts

Winter 2025

An Abstract of the Thesis of

Olivia Black for the degree of Bachelor of Arts
in the Department of Environmental Studies to be taken Winter 2025

Title: Picturing Perception: How the Environment is Portrayed in Popular Children's Literature

Approved: Katie Lynch, Ph.D.
Primary Thesis Advisor

As climate change threatens our planet, it is important children understand the world they are inheriting. Research has shown that books have an immense influence on young and emerging readers. Through a philosophy grounded in environmental criticism—a framework that explores how humans imagine our environment through literature—this thesis analyzes 40 popular children's picture books for their portrayal of the environment in support of environmental literacy—the outcome of someone who makes informed decisions on environmental issues—using the North American Association for Environmental Education's (NAAEE) guidelines for environmental education. This thesis investigates a collection of popular literature and provides recommendations to supporters of young readers in curating books that support environmental literacy. Results found that 80% of the literature does not support environmental literacy through questions guided by the NAAEE. However, additional analysis found that some literature may still promote environmental literacy through extended themes or when developmentally appropriate conversations are supplemented. This thesis concludes that while some of the analyzed literature does not support environmental literacy, many can still contribute to the development of environmental literacy in young readers.

Acknowledgements

“Once There Was a Tree...”

I would first like to thank my primary thesis advisor, Professor Katie Lynch, for her mentorship throughout this process and within the classroom. I want to thank my honors college representative, Professor Casey Shoop, too, for his support. I’m grateful to the Department of Environmental Studies and Robert D. Clark Honors College for challenging me to pursue interdisciplinary answers, problems, and perspectives of our planet. I also want to extend my thanks to the University of Oregon Glacier Lab and Professor Mark Carey for investing their time in my success over the last four years. I especially want to thank my family—Mom, Dad, siblings, grandparents—for their support and encouragement. Thank you for the many, many, hours you all listened to me read a myriad of drafts. Without your support, my thesis would not be where it is at. Finally, I want to thank Shel Silverstein and his book, *The Giving Tree*, for inspiring my thesis and making me question the deeper impacts of stories on our planet.

Table of Contents

Introduction	9
Literature Review	11
What is the environment and how do we teach about it?	11
The North American Association for Environmental Education and eco-literacy	12
The field of eco-criticism and how it connects to children’s literature	15
The emergent reader and what books they are reading	17
Methods	20
Sample collection	20
Mixed-method analysis	22
Questions of analysis	24
Results	30
Quantitative descriptive statistics	33
Qualitative thematic analysis through NAAEE-inspired questions	34
Thematic analysis of the physical environment	40
Discussion	55
NAAEE-inspired analysis: a failure in transferable questions?	55
Supporting eco-literacy beyond direct environmental messaging	57
How the environment was portrayed and the implications of no messaging	62
Framing	67
Appropriateness	71
Implications	72
Limitations and future potential research	71
Recommendations for Reading Supporters	73
Conclusion	74
References	75
Supporting Materials	
Google Sheets: Appendix_A_AnalysisQuestions	
Google Document: Appendix_B_Results	
Google Sheets: Appendix_C_RecommendedBooks	
Google Sheets: Appendix_D_Analysis	
Google Sheets: Appendix_E_BookList	
Google Sheets: Appendix_F_SecondReviewer	

List of Figures

Figure 1. NAAEE-inspired question results for eco-literacy support.....	31
Figure 2. Further analysis results for eco-literacy support	32
Figure 5. The Snowy Day	58
Figure 3. A Sick Day for Amos McGee	59
Figure 4. Giraffes Can't Dance	60
Figure 6. Mike Mulligan and His Steam Shovel.....	61
Figure 7. The Napping House	64
Figure 8. The City Tree.....	65
Figure 9. <i>Alexander and The Terrible, Horrible, No Good, Very Bad Day</i>	66
Figure 11. Owl Moon.....	68
Figure 12. We're Goin on A Bear Hunt!	70

List of Tables

Table 1. Recommended Book Lists	20
Table 2. List of books analyzed	22
Table 3. Evaluator Notes	24
Table 4. Content Questions	25
Table 5. Strand 1: Questioning, Analysis, and Interpretive Skills Questions	26
Table 6. Strand 2: Environmental Processes and Systems Questions	27
Table 7. Strand 3: Skills for Understanding and Addressing Environmental Issues Questions	28
Table 8. Strand 4: Personal and Civic Responsibility Questions	28
Table 9. Characterizations of the physical environment	29
Table 10. Common animals repeated through the sample	33
Table 11. Strand 1 Results for NAAEE-inspired questions	35
Table 12. Strand 3 Results for NAAEE-inspired questions	36
Table 13. Strand 3 Results for NAAEE-inspired questions continued	37
Table 14. Books in support of eco-literacy through NAAEE-inspired analysis	39
Table 15. Themes of the physical environment	40
Table 16. Themes of the physical environment continued	41
Table 16. Themes of Home in text	42
Table 17. Themes of Home in Illustrations	42
Table 18. Themes of Play in text	44
Table 18. Themes of Play in Illustrations	44
Table 19. Themes of Adventure in Text	46
Table 20. Themes of Adventure in Illustrations	46
Table 21. Themes of Danger in Text	47
Table 22. Themes of Danger in Illustrations	48
Table 23. Themes of Rest in Text	49
Table 24. Themes of Rest in Illustrations	49
Table 25. Themes of Resource in Text	50
Table 26. Themes of Resource in Illustrations	50
Table 27. Spending time in nature theme	51
Table 28. Care and empathy theme	52
Table 29. Learning a Lesson theme	53

Table 30: Human Exceptionalism Theme	53
Table 31: Environmental Characterization for Environmental Marketed Stories	54

List of Abbreviations

Eco-literacy	Environmental Literacy
EE	Environmental Education
Eco-criticism	Environmental Criticism
NAAEE	North American Association for Environmental Education
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNEP	United Nations Environment Program
LIP	Learning in Places
CPB	Children's picture book

Introduction

“When we read, study, and teach children’s literature, what effect do we want it to have on our children?” (Gaard, 2008, p. 20)

This thesis explores the relationship between environmental representation, environmental literacy (eco-literacy), and emergent readers. Reading to children is critical to early development. Ece Demir-Lira et al. (2019) and Sheldon-Dean (2023) conclude that parents reading to their children can advance literacy and later language development. Frequently reading to children has been shown to build cognitive skills (Kalb & van Ours, 2013). Books also nourish imaginations, especially when the reader identifies with the characters (National Children’s Books, 2015; Niland, 2023). Importantly, books have an influence on readers’ ideas and worldviews. Books contribute to stereotypes, cultural values, and perceptions on society and norms (Adukia et al., 2023, Abstract; Boutte et al., 2008, p. 958; Rifaat Salman Salih, 2023, p. 270). Ultimately, the books we choose to read to young children have a message.

As the risks of anthropogenic climate change continue to worsen, it is essential to provide accurate and age-appropriate education for children about our changing planet. This includes supporting environmental framing in their stories. Framing grapples with the way a story is presented to its audience and is essential in how we understand and consider potential solutions and futures to climate change (Mass Communication Theory, 2014, para 2). Framing is especially important for social movements like environmentalism which are built on idealism, whereas “Idealism mobilizes. And it throws a light on, and presents a counterweight to, moral compromise,” (Lakoff, 2010, p. 80). Framing is an important part of understanding literature and its effects.

Picture books create an interesting relationship between education, as framing influences children’s understanding of place and their part in it. As Boutte et al. (2008) explains, children’s

literature explores “society’s overt and covert values and often explains and justifies “appropriate” patterns of behavior and beliefs,” (p. 943). When considering environmental representation, this may mean encouraging themes of sustainability, action, and compassion toward the natural world. Yet, making lasting changes on our planet is more than teaching children to recycle. The environment encompasses more than ecosystems and habitats, but also the systems which interact with it culturally, socially, politically, etc. It is not a question of whether a book can teach about electric cars versus gasoline, but whether it can support the readers’ development of values that will drive them toward action to solve environmental problems. Today, picture books marketed toward children as “environmental” “earthy-friendly” or “nature-focused” are promoted as teaching these values. Within them, authors have the explicit intent of teaching environmental ideas to their readers. Yet, these stories may not reach the broad audience that classic, popular, or mainstream literature has had for decades. The question remains, does popular literature show similar ideas that support eco-literacy?

This thesis examines a collection of popular children’s picture books for environmental themes in support of eco-literacy through a mixed-methods analysis investigating both the provided text and imagery. It uses a framework of environmental criticism (eco-criticism) which critiques the way the natural world is portrayed in literature. The analytical framework characterizes the themes of the environment in support of eco-literacy based on the North American Association for Environmental Education (NAAEE) Guidelines for Excellence: Environmental Education. By identifying these themes, this thesis recommends how supporters to young readers can curate literature that enhances eco-literacy values.

Literature Review

Introduction

This section explores the current scholarship surrounding the definition of the environment, environmental education, and advancement of eco-literacy through literature. It encompasses the history and theories behind environmental education, eco-literacy, and eco-criticism. Further, this section will identify the relationship between these concepts and what this thesis offers to the field of eco-criticism.

What is the environment and how do we teach about it?

There are many working definitions of the environment, including defining the environment as the place “Where we live, work, play, learn and pray,” (Greenaction, 2024, para 1). While current approaches to the environment encourage more complementary models that position humans as a part of the natural world, for some, the environment is still a place that is separate from and must be protected from humans (Nature-Culture Relations, 2021). These common interpretations may view the environment as equivalent to the biotic and abiotic components of the natural world, a separate system from the built environment of humans. However, teaching about the environment is critical to understanding these nuanced differences that help people interact with our planet on a day-to-day basis. Further, educating about the environment leads to many positive benefits, including to academic performance, personal growth, civic engagement, and positive environmental behaviors (Ardoin, n.d., key findings).

Environmental education (EE) as an established field is quite contemporary but comprises the ways in which people around the world teach about our planet. Today, the United States Environmental Protection Agency defines EE as a:

Process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions (Environmental Protection Agency, 2018, para 1).

Outdoor education programs have been present well before the 1970s, and teachings about our planet have contributed to science classrooms for decades through earth science, physics, biology, and more. However, it was not until Stapp (1969) that the concept of EE was introduced. Influenced by this research came a report from the 1977 Tbilisi United Nations Educational, Scientific and Cultural Organization (UNESCO) and United Nations Environment Program (UNEP) that further defined the work of EE. Researchers like Gough (2016) have argued that the formalization of EE came from the UNESCO-UNEP Tbilisi Declaration and because of the “growing awareness of the threat of environmental degradation in the 1960s” (p. 2). The Tbilisi Declaration established the core values of EE.

The North American Association for Environmental Education and eco-literacy

The North American Association for Environmental Education (NAAEE), a US-based nonprofit established by college educators in 1971, later developed the modern-day framework for EE (North American Association for Environmental Education (NAAEE), 2021). Building upon Stapp (1969) and the Tbilisi declaration, the NAAEE provides a holistic view whereas EE “advances key societal issues—from the Next Generation Science Standards to STEM to climate change education,” (“About EE”, n.d., para 5). The NAAEE supports EE at all levels, implementing educational programs across local communities and even global networks. They hope to create guidelines for the field of EE, champion access to EE through equity and inclusion, and provide recognition to invest and advance eco-literacy (NAAEE Strategy Framework, 2025).

The efficacy of EE in producing environmentally sustainable citizens has been investigated by the NAAEE. Over the last decades, the NAAEE have published many reports, guidelines, and recommendations to support environmental educators in various contexts. In 2011, the NAAEE published a report titled *Developing a Framework for Assessing Environmental Literacy: Executive Summary*, where they explored the theory behind increasing eco-literacy in the classroom. The NAAEE defined eco-literacy as:

Someone who, both individually and together with others, makes informed decisions concerning the environment, is willing to act on these decisions to improve the well-being of other individuals, societies, and the global environment; and participate in civic life. Those who are environmentally literate possess, to varying degrees:

- The knowledge and understanding of a wide range of environmental concepts, problems, and issues;
 - A set of cognitive and affective dispositions
 - A set of cognitive skills and abilities; and
 - The appropriate behavioral strategies to apply such knowledge and understanding in order to make sound and effective decisions in a range of environmental contexts.
- (North American Association for Environmental Education, 2011, para 6-8)

Eco-literacy is more than just a factual understanding of climate change or environmental processes. Eco-literacy stems from a need to assess the wholistic competencies, knowledge, behaviors, and dispositions required to make decisions and actions on environmental issues (Environmental Literacy Framework, n.d., para 2). Eco-literacy encourages people to care about our planet, to have a sense of personal responsibility, and an understanding of the different worldviews and beliefs people hold regarding the environment. While eco-literacy addresses the environment from an individual perspective, it works to support broader society in finding real, systemic solutions. As some scholars have suggested, eco-literacy can turn the external awareness of problems into an internalized value to protect the environment (Ramos & Ramos,

2011, p. 3). Through the awareness to action framework of eco-literacy we can turn awareness, knowledge, attitude, and skills regarding the environment into agency that will solve environmental issues (*Tbilisi Declaration, 1977, n.d.*). While EE teaches students about our world, eco-literacy is the goal; a way to turn informed people into people with agency toward environmental action.

Other documents created by the NAAEE have included a *K-12 Environmental Education: Guidelines for Excellence Executive Summary*. This document is essentially a roadmap to achieving eco-literacy, and offers a set of expectations by fourth, eighth, and twelfth grade students. The framework is organized into four strands, “each of which is further delineated by a set of guidelines that describe a level of skill or knowledge appropriate for each of the three grade levels,” (K-12 Environmental Education: Guidelines for Excellence, 2019). While this document is not a standard for curriculums, it rather supports educators and families in evaluating the eco-literacy of a child by using an outline of the “core ingredient” of EE.

Learning in Places frameworks

While the NAAEE has been established as a primary resource for environmental educators, other organizations including the Learning in Places (LIP) collaborative have worked to support the socio-ecological relationships between children, their families, and the environment. First funded by a grant from the National Science Foundation (NSF), LIP works to support science learning outside the classroom, and in the natural world. It incorporates topics covered by the Next Generation Science Standards as well as civic and literacy-based curriculums. LIP is comprised of educators, families, and community partners working together to create equitable, cultural, and field-based learning opportunities. Their range of curricula, pedagogical practices and frameworks work to highlight ethical and interconnected relationships

between humans and the environment (About the Project, 2021). Their frameworks range from field-based science learning; culture, family, and communities; and the complex socio-ecological systems used to provide in-depth and reflective EE to children (Storyline Frameworks for Educators, 2021).

The field of eco-criticism and how it connects to children's literature

Eco-criticism as a field explores the relationship between written works and the planet by asking how humans envision our world within literature (Asenath & Santhanalakshmi, 2021, p. 1287; Fromm & Glotfelty, 1996, p. xviii). Eco-criticism is a varied field analyzing different genres, stories, and literary works. It may analyze the physical environment or even the comprehensive systems of justice which are a part of it, as the environment encompasses many processes beyond being a static backdrop or setting (Asenath & Santhanalakshmi, 2021). As an investigation into representations and framing, eco-criticism too comprises the assumptions and ideas that authors themselves carry. As eco-critical scholar Wald (2013) explained, authors do not simply create these representations out of thin air, but rather “intervene and reconfigure representations of the environment,” (p. 139) from the world around them. These imaginings are then influenced and culturally reinforced by beliefs and worldviews. Fromm & Glotfelty (1996) argued for this earth-centered approach to literary studies their book, stating:

An ecologically focused criticism is a worthy enterprise primarily because it directs our attention to matters about which we need to be thinking. Consciousness raising is its most important task. For how can we solve environmental problems unless we start thinking about them? (1996, p. xxiv)

Eco-criticism both informs and questions how the world influences our written works and how our written works thus influence readers. To emphasize Fromm & Glotfelty, how may we address environmental problems without first understanding the problems and their imagined solutions?

One niche of eco-criticism investigates the relationships between the environment in children's literature. Multiple scholars have used eco-critical theories and frameworks to analyze children's literature for environmental, ecological, or sustainable representations for decades (Boudreaux, 2006; Echterling, 2016; Febriana Tamrin, 2018; Gonen & Guler, 2011; Hooykaas et. al., 2022; Kirk & Karbon, 1986; Martin et. al., 2019; Muthukrishnan & Kelly, 2016; Ramos & Ramos, 2011; Rule & Atkinson, 1994; van der Beek & Lehmann, 2022; Williams et al., 2011). The studies have researched books across the globe, from different genres, and for different ages groups. Some interpreted country-based samples, such as Turkish based or Dutch based literature (Gonen & Guler, 2011; van der Beek & Lehmann, 2022). Yet, because of this variety in sampled and analyzed books, the results have been just as varying depending on their criterial categories.

Some research results concluded more positively. Gonen & Guler (2011) analyzed Turkish picture books for 2–12-year-old children and found that 80% of their sample demonstrated the environment as a main theme through representations as the importance of water, learning seasons, protecting living things, amongst other findings (p. 3638). Rule & Atkinson (1994) explored 30 children's picture books through scaling categories and criteria such as nature appreciation, positive tone, and hope for a solution. While their results were varied, they concluded that books that did not rank positively in their evaluation were still valued, for as a whole the group provided "balance in both concept and design," providing further discussion regarding environmental representation in children's literature (p. 591).

In contrast, other studies have documented negative connotations in children's stories. Boudreaux (2006) examined bestselling American children's books from 2003 and discovered thematic evidence of human domination within their collected stories (p. 118). Similarly, Echterling (2016), whose research investigated children's environmental literature found

overwhelming focuses on individualistic environmentalist behavior (abstract). Each set of investigations reflects many ways stories are told across the world, and how that consequently creates just as diversified results.

The emergent reader and what books they are reading

Books are important to education. Whether through textbooks, novels, or children's stories, books are an important tool across educational fields, including in EE. Some scholars have argued that "...as one of the ways to raise the environmental consciousness, children's literature could be very effective," especially when the books share ecological or "green literature" themes (Febriana Tamrin, 2018, p. 16). Contrary to textbooks, however, narrative and fiction stories can offer more engaging content, allowing the means to encounter representations of nature regardless of circumstance (Lindgren Leavenworth & Manni, 2020, p. 730; O'Brien & Stoner, 1987, p. 15). However, researchers have emphasized the need for developmentally appropriate (Martin et. al., 2019, p. 119; Zynda, 2007, p. 2); well-chosen, and "sensitively delivered" books (Wells & Zeece, 2007, p. 286); and the challenge to not overwhelm readers with doom and gloom messaging (Rule & Atkinson, 1994, p. 586). Children's books can become powerful tools for EE, if done correctly.

One way children's literature has incorporated EE has been through assessments of books for their impact on children's eco-literacy. Muthukrishnan (2019) investigated the efficacy of using picture books to convey complex ecosystem concepts and for the introduction of eco-literacy to first graders. The study found that students' responses demonstrated an extended willingness to play with new concepts. Similarly, Ramos & Ramos (2011) conducted a close reading of wordless picture books and found their narratives through images supported not just

habits of “proto-literacy, but also of eco-literacy.” (p. 13). Both studies demonstrated the ways in which eco-literacy may be supported through literature.

While previous studies have investigated eco-literacy efforts in the classroom, a children’s learning environment is not entirely situated in formal contexts. Rather, a child’s learning environment is made up of support systems across various informal settings too. People reading to young children include parents, guardians, older siblings or grandparents, and even babysitters and librarians. These young readers, also known as emergent readers, are children who have yet to learn to read or write independently and depend on continued support to “make meaning from print,” (Learning for All, 2016, para 5). Emergent readers rely on their reading supporters to not only read books but choose books too. Choosing books for a young reader depends on many factors. Reading supporters want books that will help encourage literacy, are interesting, and have positive morals to demonstrate to a child. Another forgotten factor, however, is the reliance of reading supporters on the classic literature they may have read as a child themselves.

The final factor is the importance of picture books themselves. Picture books are more accessible and engaging to young children, leaving lasting impressions far better than text (Muthurishnan & Kelly, 2016). As Bradbery (2013) explained,

Children’s literature — picture and story books in particular — can be used as a powerful tool to help even the youngest citizens become aware of the need to assume responsibility for creating and enjoying a sustainable future through global citizenship (p. 11).

Similarly, understanding the wholistic components of the environment can be complex. Images and illustrations can provide additional context for a young reader. Simple illustrations of people and the planet can be used to present recognizable realistic and action-based activities.

Research goal

It is essential we teach our younger generations about our changing planet. This thesis aims to investigate, how do popular children's picture books portray the environment to support eco-literacy as outlined by the NAAEE *K-12 Environmental Education: Guidelines for Excellence*? And how can environmentally minded reading supporters to emergent readers curate collections of literature that enhance the readers' eco-literacy?

Methods

Sample collection

The first step for my analysis was to establish a set of criteria. I decided to focus on children's books that were narratively focused for ages 0-8 years old, as the NAAEE formatted their recommendations for eco-literacy based on the grades K-4. I also wanted books that had a narrative focus, not just a concept, e.g., not a counting book. I chose to focus on the popularity of literature over other groupings such as country, publication year, or marketed environmental focus. I used this criterion because I wanted books that were consistently recommended by reading supporters to emergent readers; creating a wholistic view of literature on what children may be reading. To do this, I found 15 different "most popular," "best-selling," "recommended," and "classic" lists of recommended books through Google. See full list on Appendix C.

Table 1. Recommended Book Lists

Recommended Book Lists
Amazon Best-Sellers, <i>Best Children's Picture Books</i>
Association for Library Service to Children Children's Books Council (ALA-CBC), <i>Home Library Booklists 2018</i>
Barnes & Noble, <i>Best-Selling Picture Books</i>
Bookroo, <i>Bestselling Picture Books</i>
Good Reads, <i>Best Picture Books</i>
Google Top Results, <i>"Popular Children's Picture Books"</i>
Happy You Happy Family, <i>The Ultimate List of the Best Picture Books, Endorsed by Kids and Parents, The Best Classic Picture Books</i>
National Education Association, <i>Books Kids Love; Picture Books and Chapter Books</i>
National Public Radio, <i>Welcome To Story Hour: 100 Favorite Books for Young Readers</i>
New York Public Library, <i>125 Kids Books We Love</i>
Publishers Weekly, <i>Children's Picture Books</i>
Scholastic, <i>Teacher Picks: Top 25 Picture Books</i>
Scottsdale Public Library, <i>Top 100 Children's Picture Books of All-Time</i>
TeachersFirst, <i>100 Best Books for All Ages, Preschoolers, Ages 4-8</i>
Time Magazine, <i>The 100 Best Children's Books of All Time</i>

Table provides both the organization that created the list and the title or descriptor of the list.

My next step was to remove any books that did not meet the criteria. For example, the TeachersFirst website offered multiple book lists on their page, but I only included books that were for all ages, preschoolers, and children 4-8; and not books from their 9-12 section. Similarly, best-selling lists vary depending on the time of year. For the sake of this selection, books were collected from best-selling lists during June 2024 to avoid major holidays as best as possible. Moreover, books taken from the Google top results search came from a generic search of “popular children’s picture books” from an incognito browser, as to not infer recommendations based on my search history. Additionally, all the best-selling book lists offered endless pages of results, and to keep the lists to what is most likely viewed, I selected books only on the first page.

The final step was to list all the books in total from each list and count which appeared the most frequently. 41 books occurred on at least a third of the lists. Each book was then compared again against the original criteria. The only book that did not qualify was *Chicka Chicka Boom Boom*, which had no narrative and was only a concept ABC book. Table 3 below lists the 40 books and how many times they were repeated.

Table 2. List of books analyzed

Times Repeated	Author	Book Title
5	Allard, Harry	<i>Miss Nelson is Missing</i>
	Andreae, Giles	<i>Giraffes Can't Dance</i>
	Bemelmans, Ludwig	<i>Madeline</i>
	Brown, Margaret W.	<i>The Runaway Bunny</i>
	Cooney, Barbara	<i>Miss Rumphius</i>
	de la Peña, Matt	<i>Last Stop on Market Street</i>
	dePaola, Tomie	<i>Strega Nona</i>
	Dr. Seuss	<i>The Lorax</i>
	Eastman, P. D.	<i>Go, Dog, Go!</i>
	Johnson, Crockett	<i>Harold and the Purple Crayon</i>
	Klassen, Jon	<i>I Want My Hat Back</i>
	McBratney, Sam	<i>Guess How Much I Love You</i>
	Reynolds, Peter H.	<i>The Dot</i>
	Slobodkina, Esphyr	<i>Caps for Sale: A Tale of a Peddler, Some Monkeys, and Their Monkey Business</i>
	Stead, Phillip C.	<i>A Sick Day for Amos McGee</i>
	Willems, Mo	<i>Knuffle Bunny: A Cationary Tale</i>
	Wood, Audrey	<i>The Napping House</i>
	Yolen, Jane	<i>Owl Moon</i>
6	Cannon, Janell	<i>Stellaluna</i>
	Cronin, Doreen	<i>Click, Clack, Moo Cows That Type</i>
	Dr. Seuss	<i>Green Eggs and Ham</i>
	McCloskey, Robert	<i>Blueberries for Sal</i>
	Munsch, Robert	<i>Love You Forever</i>
	Pfister, Marcus	<i>The Rainbow Fish</i>
	Piper, Watty	<i>The Little Engine That Could</i>
	Potter, Beatrix	<i>The Tale of Peter Rabbit</i>
	Rosen, Michael W.	<i>We're Going on a Bear Hunt!</i>
7	Willems, Mo	<i>Don't Let the Pigeon Drive the Bus</i>
	Carle, Eric	<i>Brown Bear, Brown Bear, What Do You See?</i>
	Dr. Seuss	<i>Oh, The Places You'll Go!</i>
	Numeroff, Laura	<i>If You Give a Mouse a Cookie</i>
8	Silverstein, Shel	<i>The Giving Tree</i>
	Freeman, Don	<i>Corduroy</i>
	Leaf, Munro	<i>The Story of Ferdinand</i>
9	Viorst, Judith	<i>Alexander and the Terrible, Horrible, No Good, Very Bad Day</i>
	Keats, Ezra J.	<i>The Snowy Day</i>
10	Brown, Margaret W.	<i>Goodnight Moon</i>
	Sendak, Maurice	<i>Where the Wild Things Are</i>
13	Carle, Eric	<i>The Very Hungry Caterpillar</i>

Books are organized by the author's last name in each category of times they were repeated.

Mixed-method analysis

Quantitative descriptive statistics

I developed a set of questions to discern the general content of the books. I pulled from past literature, particularly Boudreaux (2006) which inspired the questions around the

anthropomorphism of animals and whether they were depicted in their natural habitat or not. Most of these questions involved yes or no answers.

Qualitative thematic analysis and the NAAEE guidelines

Thematic analysis was the basis of my investigation. I started by creating 22 questions. I then familiarized myself with the books by reading each several times. After reading the books, I identified and labeled any recurrent ideas I noticed. From these I gathered potential themes and refined them to examine how the books support eco-literacy.

As a part of this thesis' contribution to the field of eco-criticism, the 22 questions for the thematic analysis were based on the NAAEE's *Guidelines for Excellence: K-12 Environmental Education Executive Summary*. This guideline's intent is to review the eco-literacy of a child. It is not meant to analyze literature. However, the document breaks down key insights into the age-appropriate traits of an eco-literate child; a segway which this thesis hopes to use to discern the support of these eco-literacy values in children's literature.

The NAAEE's evaluation separates its guidelines by grade, and I used their insights for grades K-4. Further, the document organizes its' assessment into four strands that represent different aspects of eco-literacy. These categories are: Strand 1, Questioning, Analysis, and Interpretation Skills; Strand 2, Environmental Processes and Systems; Strand 3, Skills for Understanding and Addressing Environmental Issues; and Strand 4, Personal and Civic Responsibility. Applying this guideline for analysis provides novel insight into whether popular children's picture books support the development of eco-literacy through environmental education in literature.

Questions of analysis

Following the NAAEE's K-12 document, I organized my qualitative questions into their subsequent strands. In addition to these qualitative questions, I created a separate section for the quantitative questions along with the reviewer comments and a space for additional observations. To support objectivity to my interpretations, I created a set of criteria and examples for each question so it may be further replicated. All questions listed under the strand's sections are inspired or pulled directly from the NAAEE's K-12 Environmental Education Guidelines for Excellence (K-12 Environmental Education: Guidelines for Excellence, 2019). In each section I will explain further what components of each question from the document I used to create the questions for this analysis. See Appendix A for the list of all questions. See also Tables 3-10.

Reviewer Notes

These questions do not analyze the books. Rather, they are notes or comments I had noted as I read through the stories, to familiarize myself with them more.

Table 3. Evaluator Notes

Evaluator Notes		
Question	Criteria	Example Answers
Describe the general plot of the picture book	Explain briefly what the plot of the story is	About a bunny and his mother playing together in the forest
Describe any greater themes you noticed about the book	What are some greater messages of the story? (environmental or otherwise)	About family, friendship, and love
Additional general thoughts or details to remember	Anything you feel you need to share about the story to review later	The book is super sweet and has good general messaging about family, but not obvious environmental messaging. Good book but nothing is popping out so far

Content Questions

Questions within this section are a part of the quantitative descriptive statistics. They asked what the books contain, e.g., do they have backgrounds or animals to analyze?

Table 4. Content Questions

Content		
Question	Criteria	Example Answers
Depiction of a background (versus being blank): yes or no	There is art showing a background in some presence beyond the cast of characters, bringing context to the story somehow	Yes No Yes (partially blank)
Depiction of place in background: indoor, outdoor, or both	Indoor shows inside a house/building/structure only. Outdoor shows natural environments outside only. Both shares both settings, whether characters are physically outside or looking out a window	Both Indoor Outdoor
Are there depictions of animals, and what type: also, foreground or background	List what types of animals are depicted and discussed in the images and text. Forefront animals are central to the main story, and background animals appear in the setting but make no impact on the story itself	Bunnies (foreground), birds, cat, dog (background) N/A (no animals)
If so, are the animals depicted correctly? yes, no, fantastical	Yes, assume the animals are in the correct environment. No means the animals are in the wrong environment. Fantastical means that it is a magical landscape or animal, and question is inapplicable	No (polar bear in a desert) Fantastical (made-up creatures in a made-up setting) Yes (everything seemingly correct)
Are animals anthropomorphized? yes or no	Do the animals speak, wear clothes, or share thoughts/ideas?	Yes (animal wears clothes) No (animal is purely an animal)

Strand 1: Questioning, Analysis, and Interpretive Skills

These questions aimed to determine how the books support readers in questioning, analyzing, or interpreting environmental issues. They review the moments or opportunities in books where characters and/or audience think about changes, impacts, or consequences in relation to the environment or animals. Further, if a problem was identified, it analyzed whether the book encouraged the character and/or audience to conclude on the problem. This aims to support questioning, drawing conclusions, and collecting information sections of Strand 1 (K-12 Environmental Education: Guidelines for Excellence, 2019., p. 22).

Table 5. Strand 1: Questioning, Analysis, and Interpretive Skills Questions

Strand 1: Questioning, Analysis, and Interpretive Skills		
Question	Criteria	Example Answers
Does the book identify and/or solve an environmental issue: yes or no	The book illustrates or explains topics surrounding an environmental issue for the reader or the characters. Explain how, e.g., are they identifying an issue, asking questions about an issue?	Yes (a company is poisoning the lake, and the lake animals investigate, ultimately coming together to save it)
Does the book identify and/or solve an animal/ecological issue: yes or no	The book illustrates or explains topics surrounding an animal/ecological issue for the reader or the characters. Explain how. E.g., are they identifying an issue, asking questions about an issue?	Yes (a class learns how rhinos are almost extinct)
If yes, does the book encourage a character or the reader to question the issue, and come to their own conclusion?	Explain how the book encourages the reader or character to learn about the issue, question it, investigates it, and how they explored their own explanations to address their question.	Yes (the main character learns about saving the trees through a YouTube video and does her own research in the library. She decides she will also save the trees by starting a group to plant more in her hometown)
Does the book describe an environmental or scientific process? (e.g., an earthquake, photosynthesis)	Describe if any processes are explained or shown to the reader.	Yes (shows how plants photosynthesize)

Strand 2: Environmental Processes and Systems

The six Strand 2 questions explore how the books cover environmental processes, systems, and human activities in relation to the environment. These questions look at how humans interact with the environment or animals physically, and through moments or conversations about the socio-economic, political, and cultural ways humans interact with the environment. The final question helps identify the conceptual aspects of processes too by asking if the books explore any processes or systems such as photosynthesis, phenology, life cycles, etc. These questions aim to help support the points listed through Strand 2's sections titled: the earth's physical systems and earth's living systems and environment and society through human-environment interactions (K-12 Environmental Education: Guidelines for Excellence, 2019., p. 25).

Table 6. Strand 2: Environmental Processes and Systems Questions

Strand 2: Environmental Processes and Systems		
Question	Criteria	Example Answers
Does the book depict/discuss the living environment/animals interacting with humans? yes or no	Explain how the book illustrates or discusses animals interacting with people.	No (animals aren't in the story) Yes (human takes care of a sick animal)
If yes, how was it presented? positive, negative, need more info (NMI)	Explain if there was any messaging on how these relationships were shown or discussed.	Positive (the human taking care of his friend, an elephant)
Does the book depict/acknowledge human interaction with the environment? yes or no	Explain how the book illustrates or discusses humans interacting with the environment. Yes, could mean a direct interaction with nature (picking flowers/fruit, logging the forest). No, humans do not interact with nature. N/A means humans or nature are not included in the story.	Yes (the child went picking apples with her family at a farm) No (nature is not depicted)
If yes, what were these interactions like? positive, negative, need more info (NMI)	Explain if there was any messaging on how these relationships were shown or discussed.	Positive (spending time with family, eating and picking apples)
Does the book depict/discuss the complexities of environmental issues, solutions, and participation through ideas of cultural, political, and economic systems?	The book illustrates or discusses complexities such as legal systems, different cultures, political systems, etc.	Yes (character collects sand dollars to sell them, but discovered it might harm the local beach ecosystem)
Does the book depict/discuss the ways humans depend on, change, and are affected by the environment?	Describe how the book illustrates or discusses how humans can impact the planet, and how the planet impacts us.	Yes (the boy finds out that him throwing his trash out the window could hurt the planet)

Strand 3: Skills for Understanding and Addressing Environmental Issues

These questions identify and investigate the consequences, decision making, and evaluative needs and processes surrounding action of characters and/or audience. They help support eco-literacy by introducing different world views and backgrounds that encompass different communities. These questions aim to support the Strand 3's sections of sorting out the consequences of issues, observing how different effects environmental ideas shape different people, and working with flexibility, creativity, and openness through call to action to further investigate ideas (K-12 Environmental Education: Guidelines for Excellence, 2019, p. 34).

Table 7. Strand 3: Skills for Understanding and Addressing Environmental Issues Questions

Strand 3: Skills for Understanding and Addressing Environmental Issues		
Question	Criteria	Example Answers
Do the book encourage characters or reader to make a personal judgment about an environmental issue? yes or no	Character(s) formulate their own opinion and views about the environment. Such as voicing their thoughts on an issue, defending the rights of nature, protesting, arguing, etc.	Yes (a kid gets their friends together after class to teach them about recycling)
If yes, how do they take action? What was their reasoning?	If a character(s) showed personal judgment, how did they show it? Action means they did something for change, discussion means they talked about it/voiced opinions/changed people's ideas	Yes (kid convinced friends to all go to a beach cleanup) Yes (talked to friends, and they all agreed recycling is good, but nothing happens after)
Does the character(s) acknowledge a person's worldview and differing perspectives or cultures?	Illustrate or explain different feelings/actions someone can have toward the environment, and/or character(s) display an openness to different perspectives.	Yes (the character and her friend learn after talking that their family each have different opinions on logging forests)
Do the character(s) evaluate their actions at the end of the story?	Character(s) think or discuss what they did and how it impacted other people, animals, or the environment.	Yes (characters got together at the end to think about their recycling program and the impact they made on their community)
Does the book acknowledge the reader/or character's personal responsibility toward the environment? Such as having a call to action or encouraging the reader to learn more.	The book encourages readers to be retrospective. Could include a call to action (this is what you could/should do), learning more (resources at the end of the book), or character reflection. Explain	Yes (the book includes a resource to learn more about the animal the story is about, in the ending pages)

Strand 4: Personal and Civic Responsibility

These questions explore the rights and responsibilities of characters and the audience. Ultimately, these questions are aimed at instilling an agency within readers through recognizing, developing, and accepting responsibility toward the environment by asking questions that look at morals, feelings, and responsibility. These are defined as the moments where the books help a character or the audience feel empathy toward the animals and the environment (K-12 Environmental Education: Guidelines for Excellence, 2019, p. 39).

Table 8. Strand 4: Personal and Civic Responsibility Questions

Strand 4: Personal and Civic Responsibility		
Question	Criteria	Example Answers
Does the book depict environmental morals/values/behaviors? yes, no, possibly, n/a, anti-environmental	Do the characters within the illustrations or text show morals/values/behaviors regarding the environment? Including feelings (expressing love/care/appreciation for nature), and actions (treating an injured animal, protecting a tree from rain). If yes, they do. If not, they don't. If possible, it means the ideas may be extrapolated, and you must explain. Anti-environmental means they show ideas that are not necessarily positive framing of the environment, explain in answer	Possibly (book spends a lot of time in nature and having fun in nature. While there isn't anything necessarily pro-environmental directly written, it can be extrapolated that it showcases care for the environment) Anti-environmental (book shows the environment as a resource, strictly, and has ideas of human exceptionalism as the humans bare no responsibility)
If yes, does it display positive and caring feelings? yes or no	Specifically, how these morals/values/behaviors are shown positively in caring for the planet	Yes (he plays with the animals when he's sick)
If yes, does it display rights and responsibility? yes or no	Specifically, how these morals/values/behaviors are shown about how each person has a responsibility to the planet	Yes (encourages reader to fight and protect the planet himself)

Observations of themes

The question within this section is not within the NAAEE analysis. Rather, they were themes I noticed myself as I familiarized myself with the books. These questions ended up analyzing the characterizations of the physical environment in text and art.

Table 9. Characterizations of the physical environment

Observations of themes		
Question	Criteria	Example Answers
Explain how characters interact with nature	Describe the general ways characters interact with or use the natural world	Play (fishing outside, running in the woods, happy faces) Danger (forest is dark, characters seem to show fear)

Methodological limitations

Thematic analysis is inherently a more subjective based approach. While this study aimed to create a replicable analytical system, this thesis must consider that people may perceive my interpretations differently. As research has demonstrated in the last several years, there are multiple ways of knowing; and different relationships, histories, values, and identities shape a person's ideas and practices (Culture, Learning and Identity, 2000). As a white, female, and academic student, what I find in these stories may not be the same as others. I've appointed a second person to code several of the sampled books using my questions and criteria to test the validity and reliability of my method. This additional set of eyes analyzed, with the same set of questions, 5 books from the collection. This second person found similar results to my own, exploring several common ideas among the 5 books thus encouraging the most objective view possible in my own analysis. See the Appendix F for their analysis.

Results

Introduction

The results of my analysis offer two different findings. The NAAEE-inspired analysis found that 80%, or 32 of the 40 children's picture books (CPBs) do not support eco-literacy. This analysis found that the CPBs are lacking in representations of environmental understanding, attitudes, skills, and action toward the environment. Additional investigations into the literature found that even though most CPBs portray characters interacting with the environment through themes of Home, Play, Adventure, Danger, Rest, and Resource, many characterizations still do not support eco-literacy as outlined by the NAAEE-inspired questions.

However, several themes outside of the NAAEE-inspired questions became apparent as I analyzed the CPBs. My analysis found themes of Spending Time in Nature, Learning a Lesson, Care and Empathy, and Human Exceptionalism. From this, I discovered that many of the CPBs that the NAAEE-inspired analysis defined as not supporting eco-literacy can in fact support eco-literacy through these additional ideas. Thus, my further analysis instead finds that only 42% of literature does not support eco-literacy, and the remaining 58% do support eco-literacy. See Figures 1 and 2 for the breakdown of each analysis results.

Figure 1. NAAEE-inspired question results for eco-literacy support

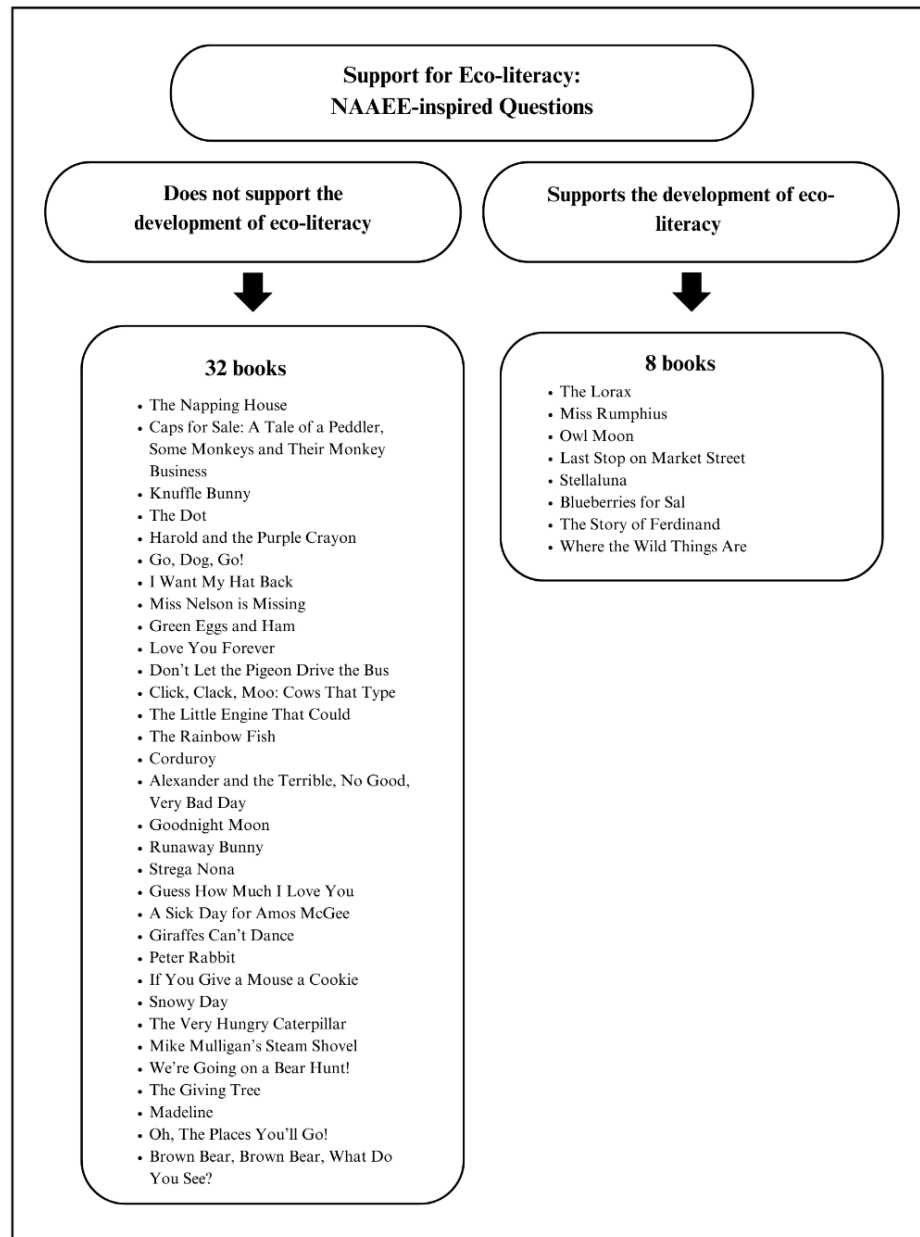


Figure 1 shows the results as found by the NAAEE-inspired questions. Because most of the literature was unable to answer the questions, they were categorized as not supporting eco-literacy.

Figure 2. Further analysis results for eco-literacy support

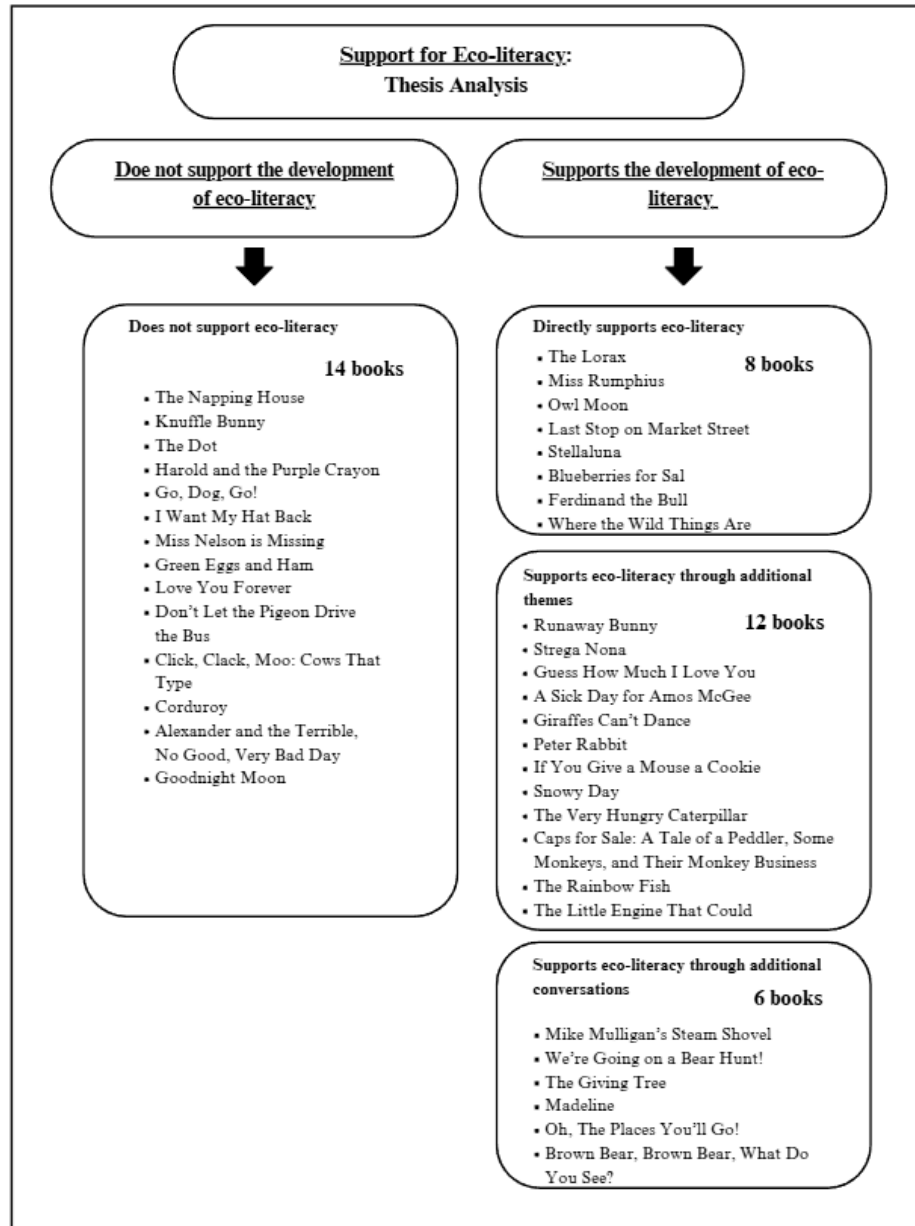


Figure 2 shows the results found through further analysis. Figure 2 highlights how some books may support eco-literacy in ways that were not uncovered by the NAAEE-inspired question analysis. While 14 books continue to not support eco-literacy, 8 books support eco-literacy directly and 18 support eco-literacy through further themes and conversations.

Quantitative descriptive statistics

Of the 40 CPBs, 34 had an illustrated background and an additional 4 which didn't provide sparse art to indicate a setting. The remaining 2 CPBs, *Brown Bear, Brown Bear, What Do You See?* and *Don't Let the Pigeon Drive the Bus* were completely void of any contextual setting through art. Of the 38 CPBs with indication of a setting, 23 provided both indoor and outdoor backgrounds, 13 provided only outdoor, and 2 provided indoor settings.

Table 10 shows what animals were repeated throughout the most CPBs. As listed, mammals tended to dominate throughout the illustrations, with only miscellaneous birds and butterflies deviating from this theme.

Table 10. Common animals repeated through the sample

Animal	Number of times repeated
Birds misc.	19
Dog	12
Cat	10
Rabbit	8
Bear	6
Butterfly	6
Mice	6
Monkey	5
Elephant	4
Horse	4

In some CPBs, the animals were central characters at the forefront of the story, while others were in the background. Animals in the foreground were varied, but their importance to the story was showed through their continued illustration on the page or interaction with the plot. Animals in the background, however, were commonly birds, butterflies, cats, and dogs; and had no place in the story beyond showing the setting.

Further analysis analyzed character representation. Accuracy of the animal's habitat was first investigated by defining accurate environments as realistic settings in which you may find the animals. 25 of the CPBs portrayed animals in accurate habitat, given the context offered in the setting. Of these, *Madeline* and *A Sick Day for Amos McGee* portrayed animals in a zoo. In contrast, 9 CPBs showed animals in fantasy-settings and were unable to be categorized into accurate environments, and a further 5 did not provide enough detail to the animal's environment to be analyzed. Only 1 CPB, *Caps for Sale*, depicted monkeys in a seemingly European-style urban forest. Further, this section analyzed whether the CPBs portrayed animals that were anthropomorphized. A total of 22 CPBs were found to anthropomorphize their animals, while 15 did not, and 3 had no animals pictured.

Qualitative thematic analysis through NAAEE-inspired questions

Below are the results for the qualitative thematic analysis. Each question is organized into the NAAEE Strand it was based off.

Strand 1: Questioning, Analysis, and Interpretive Skills

Analysis found that majority of the books did not identify or solve an issue relating to the environment or animals. The CPBs that solved an issue relating to the environment were *The Lorax*, *Miss Rumphius*, and *The Giving Tree*. The CPBs that solved an issue relating to animals were *Stellaluna* and *The Lorax*. Further, *The Lorax* was the only CPB that had a character question the issue and come to their own conclusion.

Table 11. Strand 1 Results for NAAEE-inspired questions

Strand 1		
Question and response	Does the book identify or solve an environmental issue?	Does the book identify or solve an issue relating to animals?
# of CPBs that did	3	2
# of CPBs that did not	37	38
Total % of CPBs that did not	92.50%	95%

Strand 2: Questioning, Analysis, and Interpretive Skills

The first questions in this section investigated how the CPBs portrayed interactions between humans and animals. Results found that 28 CPBs have animals and people interacting with each other, while the remaining 12 either had no humans or animals to interact. Of the 28 with interactions, 9 were positive, 10 were negative, and 9 did not have enough information for interactions to characterize. This was determined through textual and illustrated context such as language and facial expressions. For example, in *Caps for Sale*, the man selling his hats throws his arms into the air to show he is upset when the monkeys steal his hats.

The second set of questions analyzed how humans interacted with the environment. 18 CPBs portrayed interactions between humans and the environment, and 9 had both the environment and people illustrated, but offered no direct interaction beyond the environment being the setting. A further 13 CPBs had neither humans nor the environment to interact with. Of the 18 that did offer some interaction, 12 were positive, 3 were negative, and 3 did not have enough information to be analyzed.

The final set of questions in this section aimed to showcase the deeper relationships between human and environmental interactions. The first explored the complexities of environmental issues, solutions, and participation by highlighting the cultural, political, and

economic systems that influence it. Only *The Lorax* and *Mike Mulligan and His Steam Shovel* answered this question by using economic systems to explore their problems. The next question investigated how humans depend on, change, and are affected by the environment. Analysis found only 4 CPBs that did so: *The Lorax*, *Mike Mulligan and His Steam Shovel*, *Miss Rumphius*, and *The Giving Tree*. The final question in this section asked if the CPB portrayed an environmental or scientific process; including deforestation, phenology or seasons, life cycles, seed germination, etc. The 5 CPBs that answered this question were *The Lorax*, *Miss Rumphius*, *Stellaluna*, *The Snowy Day*, and *The Very Hungry Caterpillar*.

Strand 3: Skills for Understanding and Addressing Environmental Issues

The questions in this section were based off the NAAEE strand 3. The vast majority of popular CPBs did not support the development of eco-literacy as outlined by the NAAEE-inspired criteria. See Table 12 and 13 for the results.

Table 12. Strand 3 Results for NAAEE-inspired questions

Strand 3		
Question and response	Do the characters make a personal judgement about an environmental issue?	Do the characters acknowledge a person's worldview and different cultures or perspectives?
# of CPBs that did	2	5
# of CPBs that did not	38	35
Total % of CPBs that did not	95%	88%

Only 2 CPBs had the audience make a personal judgement about an environmental issue, and these were *The Lorax* and *Miss Rumphius*. In *The Lorax*, the Onceler cuts down trees and destroys the local habitat to turn a profit, and he ignores the pleas of the Lorax trying to stop him. In *Miss Rumphius*, Miss Rumphius is taught by her grandfather to make the world more beautiful. To do so, she decides to plant flowers across her hometown, and instills the same

message to the local kids. Similarly, only 5 CPBs had the audience acknowledge the different world views and cultures of each other. These 5 included *The Lorax*, *Miss Rumphius*, *Giraffe's Can't Dance*, *Stellaluna*, and *Last Stop on Market Street*.

Table 13. Strand 3 Results for NAAEE-inspired questions continued

Strand 3		
Question and response	Do the characters evaluate their actions at the end of the story?	Does the book acknowledge the readers' personal responsibility, such as having a call to action?
# of CPBs that did	8	3
# of CPBs that did not	32	37
Total % of CPBs that did not	80%	92.50%

Further, only 8 CPBs had the audience evaluate their actions at the end of the story. These included *Strega Nona*, *Giraffes Can't Dance*, *The Lorax*, *Miss Nelson is Missing*, *Love You Forever*, *The Rainbow Fish*, *The Giving Tree*, and *The Story of Ferdinand*. Finally, only 3 CPBs called for a readers responsibility and action toward an issue: *The Lorax*, *Miss Runphius*, and *Stellaluna*.

Strand 4: Personal and Civic Responsibility

The questions in this section were based off the NAAEE Strand 4. The vast majority of popular CPBs did not support the development of eco-literacy as outlined by the NAAEE-inspired criteria. Questions in this section aimed to see if the CPBs demonstrated characters that expressed care, love, appreciation, or a personal right for protecting nature. Only 4 CPBs demonstrated a character doing this. These were *The Lorax*, *Miss Rumphius*, *The Story of Ferdinand* and *Owl Moon*. The next question aimed to see if the book displayed general feeling of care and empathy for each other. 6 CPBs did: *A Sick Day for Amos McGee*, *Miss Rumphius*,

Owl Moon, *If You Give a Mouse a Cookie*, and *The Story of Ferdinand*. The final question investigated whether the books displayed rights and responsibility. The 2 that did were *The Lorax* and *Owl Moon*.

NAAEE-inspired analysis overarching results

To measure if the CPBs support eco-literacy, each of the NAAEE-inspired qualitative questions were equated to one point. If the CPB demonstrated that it satisfied the criteria of the question, it was given a point towards eco-literacy. Similarly, questions from the content quantitative analysis were also awarded one point. If the CPB demonstrated it contained the questions content, e.g., the book illustrated a background showing the environment, the CPB was awarded a point. There were 23 points possible per book. My results show that when the books are analyzed by the NAAEE-inspired questions, most CPBs are unable to answer them. Only 8 CPBs were able to answer 9 or more questions to support eco-literacy. See Table 14 below for the results of each CPB.

Table 14. Books in support of eco-literacy through NAAEE-inspired analysis

Book	Score
<i>The Dot</i>	1
<i>Don't Let the Pigeon Drive the Bus!</i>	2
<i>I Want My Hat Back</i>	4
<i>Brown Bear, Brown Bear, What Do You See?</i>	4
<i>Guess How Much I Love You</i>	5
<i>Knuffle Bunny: A Cautionary Tale</i>	5
<i>Go, Dog, Go!</i>	5
<i>The Little Engine That Could</i>	5
<i>The Giving Tree</i>	5
<i>Alexander and the Terrible, Horrible, No Good, Very Bad Day</i>	5
<i>The Snowy Day</i>	5
<i>Goodnight Moon</i>	5
<i>The Very Hungry Caterpillar</i>	5
<i>The Runaway Bunny</i>	6
<i>Harold and the Purple Crayon</i>	6
<i>Miss Nelson Is Missing</i>	6
<i>Green Eggs and Ham</i>	6
<i>Love You Forever</i>	6
<i>Click, Clack, Moo: Cows That Type</i>	6
<i>The Rainbow Fish</i>	6
<i>Corduroy</i>	6
<i>Caps for Sale: A Tale of a Peddler, Some Monkeys and Their Monkey Business</i>	7
<i>Giraffes Can't Dance</i>	7
<i>Madeline</i>	7
<i>We're Going on a Bear Hunt!</i>	7
<i>The Tale of Peter Rabbit</i>	7
<i>Strega Nona</i>	8
<i>A Sick Day for Amos McGee</i>	8
<i>The Napping House</i>	8
<i>Mike Mulligan and His Steam Shovel</i>	8
<i>If You Give a Mouse a Cookie</i>	8
<i>Oh, The Places You'll Go</i>	8
<i>Stellaluna</i>	9
<i>Last Stop on Market Street</i>	9
<i>Blueberries for Sal</i>	9
<i>Where the Wild Things Are</i>	9
<i>The Story of Ferdinand</i>	10
<i>Owl Moon</i>	11
<i>Miss Rumphius</i>	16
<i>The Lorax</i>	21

Table is organized from lowest score to highest score.

Thematic analysis of the physical environment

As mentioned previously, I conducted further analysis of the literature and found themes and ideas beyond the NAAEE-inspired questions. First, I did a thematic analysis of the physical environment. These questions aimed to find how the environment, e.g., the biotic and abiotic features of the natural world, was depicted and discussed. 7 prominent themes were found: Home, Play, Setting, Adventure, Danger, Rest, and Resource. View Table 14 for results.

Table 15. Themes of the physical environment

Theme	Codes	# of Book	List of Books Theme is In
Home	Landing Place, Home Direct Mention, Presence	12	<i>Blueberries for Sal</i> <i>Click, Clack, Moo: Cows that Type</i> <i>Giraffes Can't Dance</i> <i>Guess How Much I Love You</i> <i>Owl Moon</i> <i>Stellahuna</i> <i>The Lorax</i> <i>The Runaway Bunny</i> <i>The Story of Ferdinand</i> <i>The Tale of Peter Rabbit</i> <i>The Very Hungry Caterpillar</i> <i>We're Going on a Bear Hunt!</i>
Play	Playful Activity, Mischievous, Imagination	11	<i>Blueberries for Sal</i> <i>Caps for Sale</i> <i>Giraffes Can't Dance</i> <i>Guess How Much I Love You</i> <i>Last Stop on Market Street</i> <i>The Giving Tree</i> <i>The Lorax</i> <i>The Napping House</i> <i>The Snowy Day</i> <i>The Tale of Peter Rabbit</i> <i>Where the Wild Things Are</i>
Setting	n/a	10	<i>A Sick Day for Amos McGee</i> <i>Alexander and the Terrible, Horrible, No Good, Very Bad Day</i> <i>Corduroy</i> <i>Goodnight moon</i> <i>I Want My Hat Back</i> <i>If You Give a Mouse a Cookie</i> <i>Knuffle Bunny</i> <i>Love You Forever</i> <i>The Little Engine That Could</i> <i>The Rainbow Fish</i>

Table 16. Themes of the physical environment continued

Adventure	Journey	10	<i>Go, Dog, Go!</i> <i>Green Eggs and Ham</i> <i>Harold and the Purple Crayon</i> <i>Miss Rumphius</i> <i>Oh, The Places You'll Go!</i> <i>Owl Moon</i> <i>Strega Nona</i> <i>The Runaway Bunny</i> <i>We're Going on a Bear Hunt!</i> <i>Where the Wild Things Are</i>
Danger	Fear, Stand Up	8	<i>Harold and the Purple Crayon</i> <i>Madeline</i> <i>Miss Nelson is Missing</i> <i>Oh, The Places You'll Go!</i> <i>Owl Moon</i> <i>Stellaluna</i> <i>We're Going on a Bear Hunt!</i> <i>Where the Wild Things Are</i>
Rest	Peace	4	<i>Caps for Sale</i> <i>Miss Rumphius</i> <i>The Giving Tree</i> <i>The Story of Ferdinand</i>
Resource	Profit, Use	3	<i>Mike Mulligan and His Steam Shovel</i> <i>The Giving Tree</i> <i>The Lorax</i>

Theme of Home

Home occurred in 12 CPBs. I disaggregated this theme into three main categories: did the book show home as a ‘landing place’ to return, did they mention home directly, or did they just show the environment as a home? These categories were *Landing Place*, *Home Direct Mention*, and *Presence*. See Table 16 and 17 below for the breakdown of the categories in the art and text.

Table 16. Themes of Home in text

Theme: Home	
Example in Text (Home)	Code
“So he crept off from the dance floor, and he started walking home.” (Giraffes Can’t Dance)	Direct Mention
“They loved living here, but I can’t let them stay” (The Lorax)	Direct Mention
“I will not let you back into this next unless you promise to obey all the rules of this house.” (Stellaluna)	Direct Mention
“Little Bear and his mother went home down one side of Blueberry Hill, eating blueberries all the way, and full of food stored up for next winter.” (Blueberries for Sal)	Direct Mention
“Till he got home to the big fir tree.” (The Tale of Peter Rabbit)	Direct Mention
“All the other bulls who had grown up with him in the same pasture would fight each other all day” (The Story of Ferdinand)	Direct Mention
“Big Nutbrown hare settled Little Nutbrown hare into his bed of leaves” (Guess How Much I Love You)	Landing Place
“It flew back into the forest” (Owl Moon)	Landing Place
“The barn is very cold at night. We’d like some electric blankets.” (Click, Clack, Moo; Cows that Type)	Landing Place

Table 17. Themes of Home in Illustrations

Theme: Home	
Example in Illustrations (Home)	Code
A bear is found in a cave after the family goes searching for it (We’re Going On A Bear Hunt!)	Presence
Animals are taken care of on a farm (Click, Clack, Moo: Cows That Type)	Presence
Different creatures are shown presiding in different parts of the Truffula Tree forest (The Lorax)	Presence
Ferdinand is shown in his pasture growing up (The Story of Ferdinand)	Presence
Birds return to nest, Stellaluna returns to branch with her mother at the end of the book (Stellaluna)	Landing Place
Bears return into the forest at the end of the book (Blueberries for Sal)	Landing Place
Bunny returns to burrow at the end of the book (The Runaway Bunny)	Landing Place
Hare’s return to a burrow at the end of the book (Guess How Much I Love You)	Landing Place
Peter returns home after escaping from McGregor at the end of the book (The Tale of Peter Rabbit)	Landing Place

Direct Mention only showed within the text, as was demonstrated when the CPB directly referenced the environmental setting as the home of a creature. In *The Lorax*, the Lorax

complains to the Oncer-Ler about having to make the animals leave the Truffula forest by saying “They loved living here, but I can’t let them stay.”

The next code was Landing Place. This idea was demonstrated through either or both illustrations and text. It was portrayed through animals returning “home” at the end of the CPB. In images, it showed animals returning to a particular place, often at the end of the story to mark its close. In *Guess How Much I Love You*, the hares return to a bed of leaves to sleep after the end of their game. Returning back somewhere offers context to that area being the home of the creatures. When shown in the text, it was marked with phrases explaining their return home. For example, in *Owl Moon*, “It flew back into the forest.” This indicates the animal is returning to where their home.

Presence was the final code, and it only showed in illustrations as it was demonstrated when an animal’s presence in a place insinuated the place as their home through outside context. Such examples include animals living on a farm in *Click, Clack, Moo: Cows That Type*, or the bear residing in a cave in *We’re Going On A Bear Hunt!* Through both images, a reader may take the animal’s presence on the farm or in the cave has indicators that they live there.

Theme of Play

Play occurred in 11 of the books. Play was demonstrated through creatures and people interacting joyfully with nature. Whether through swinging on trees or picking berries, it involved a bonding moment with the environment and each of the characters. Play was represented by 3 themes: Playful Activities, Mischief, and Imagination.

Table 18. Themes of Play in text

Theme: Play	
Example in Text (Play)	Code
"He tumbled upside down and reached up the tree trunk with his feet" (Guess How Much I Love You)	Playful Activity
"Now every year in Africa they hold the Jungle Dance, where every single animal turns up to skip and prance." (Giraffes Can't Dance)	Playful Activity
"Little Sal picked three berries and dropped them in her little tin pail...Kerplunk, kerplank, kerplunk." (Blueberries for Sal)	Playful Activity
"He would climb her trunk and swing from her branches." (The Giving Tree)	Playful Activity
"I saw brown Bar-Ba-Loots frisking about in their Bar-Ba-Loot suites as they played in the shade and ate Truffula fruits." (The Lorax)	Playful Activity
"You monkeys, you," he said, shaking a finger at them. "You give me back my caps!" (Caps for Sale)	Mischief
"Now run along and don't get into mischief!" (The Tale of Peter Rabbit)	Mischief
"It was a stick. A stick that was just right for smacking a snow-covered tree." (The Snowy Day)	Imagination
"Don't you see this big one drinking through the straw?" (Last Stop on Market Street)	Imagination
"And tamed them with his magic trick" (Where The Wild Things Are)	Imagination

Table 18. Themes of Play in Illustrations

Theme: Play	
Example in Illustrations (Play)	Code
Monkey steals the hat man's hat from a tree (Caps for Sale)	Mischief
Peter returns from McGregor after eating in his garden (The Tales of Peter Rabbit)	Mischief
Family running around in the yard throwing their hands in the air (The Napping House)	Playful Activity
Creatures are throwing berries around and jumping in a pond (The Lorax)	Playful Activity
Little Hare swinging and hopping around with Big Hare (Guess How Much I Love You)	Playful Activity
Animals dance together in the jungle (Giraffes Can't Dance)	Playful Activity
Sal picks blueberries with her mother, eating some of them as they go along (Blueberries for Sal)	Playful Activity
Boy swings on the branches of the tree and picks her fruit (The Giving Tree)	Playful Activity
Boys playing snowfall fights, and he makes a snowman and snow angels (The Snowy Day)	Playful Activity
Max dances with the wild things happily (Where The Wild Things Are)	Playful Activity

Playful Activities were found in both art and text. In art, characters were drawn in complex interactions with the environment, such as dancing in *Giraffes Can't Dance* and *Where the Wild Things Are*, or picking berries like in *Blueberries for Sal* or *The Lorax*. In text, it was

shown through direct interaction with the environment in playful manners. In *Guess How Much I Love You*, it showed as: “He tumbled upside down and reached up the tree trunk with his feet.”

Mischief showed through actions considered “naughty.” In the art, for example, we can see this clearly in *Caps for Sale* when the monkeys climb a tree to steal the hat man’s hats, or in *The Tale of Peter Rabbit* when Peter crashes through a garden to escape McGregor. Similarly, within the text, it was characterized by chastising characters. For example, in *Caps for Sale*, “You monkeys, you, he said, shaking a finger at them. You give me back my caps!”

Imagination showed when characters incorporated fantasy or make-believe to interact with the environment. Imagination showed through the text when characters invented resourceful stories or ideas using the environment. In *Last Stop on Market Street*, the boy’s grandmother uses her stories to entertain her grandson. “Don’t you see the big one drinking through the straw?” she asked him, in reference to a tree in the rainstorm.

Setting

Setting occurred in 10 CPBs. A CPB was categorized when the environment was not framed beyond being the literal setting of the story. In *Alexander and the Terrible, Horrible, No Good, Very Bad Day*, Alexander sits outside on the sidewalk for a page but does not interact with the environment beyond that. The environment is purely depicted to indicate where he is. Similarly, in *Corduroy*, the environment was only shown through a snowstorm in a window. The rest of the story was inside, so the window only added context to the setting. As essentially a non-theme, it meant nothing was depicted or discussed that influenced the use or interaction of the environment.

Adventure

The theme Adventure appeared in 10 CPBs. In these books, the environment was characterized and used in the background to indicate travel and exploration. Whether to escape from something or to represent an escapade, the environment was the piece indicating the process. One main code made up this theme: Journey.

Table 19. Themes of Adventure in Text

Theme: Adventure	
Example in Text (Adventure)	Code
"Go by skis- bundle up so you don't freeze!" (Go, Dogs, Go!)	Journey
"I will become a little sailboat, and I will sail away from you." (The Runaway Bunny)	Journey
"We're going on a bear hunt!" (We're Going On A Bear Hunt!)	Journey
"I have been waiting to go owling with Pa for a long, long time." (Owl Moon)	Journey
"And off he went, looking for a hill to climb to see where he was." (Harold and the Purple Crayon)	Journey
"Anthony, I must go over the mountain to the next town." (Strega Nona)	Journey
"So Miss Rumphius went to a real tropical island." (Miss Rumphius)	Journey
"I do not like them here or there, I do not like them anywhere" (Green Eggs and Ham)	Journey
"Oh, the places you'll go!" (Oh, the Places You'll Go!)	Journey
"And in and out of weeks, and almost over a year, to where the wild things are." (Where the Wild Things Are)	Journey

Table 20. Themes of Adventure in Illustrations

Theme: Adventure	
Example in Illustrations (Adventure)	Code
Bunny running away (The Runaway Bunny)	Journey
Dogs use different forms of transportation to get to the dog party (Go Dogs go!)	Journey
Harold draws the ground and moon to go on a walk (Harold and the Purple Crayon)	Journey
Miss Rumphius travels to different parts of the world, like a desert and a mountain (Miss Rumphius)	Journey
The parent and child go into the woods to go owling (Owl Moon)	Journey
Sam I am chasing to try Green Eggs and Ham (Green Eggs and Ham)	Journey
Family crosses through forests, fields, and rivers searching for a bear (We're Going on a Bear Hunt!)	Journey
Character travels across different settings (Oh, The Places You'll Go!)	Journey
Max travels across the water through a boat to find the Wild Things (Where the Wild Things Are)	Journey
Strega Nona returns and saves the town from the spaghetti (Strega Nona)	Journey

Journey was a code that entailed characters travelling and arriving to new destinations. In the art, scenes often depicted characters travelling across different environments and new destinations. In *Miss Rumphius*, Miss Rumphius travels around the world exploring mountains and deserts, learning about the different cultures along the way. In the text, it was made-up phrases that explored “going away.” In *Where the Wild Things Are*, it was shown through this quote: “And in and out of weeks, and almost over a year, to where the wild things are.” See Table 15 and 16 for the codes.

Danger

Danger was a theme in 8 CPBs. This was demonstrated when a character was in harm’s way or was frightened over something related to the environment. Danger is represented through two codes: Courage and Fear.

Table 21. Themes of Danger in Text

Theme: Danger	
Example in Text (Danger)	Code
“The wild things roared their terrible roars and gnashed their terrible teeth and rolled their terrible eyes and showed their terrible claws but Max stepped into his private boat and waved good-bye” (Where The Wild Things Are)	Courage
“On you will go through the Hacken-Krax howl. Onward up many a frightening creek, though your arms may get sore and your sneakers may leak” (Oh, The Places You’ll Go)	Courage
“I didn’t ask what kind of things hide behind black trees in the middle of the night. When you go owling you have to be brave.” (Owl Moon)	Courage
“To the tiger in the zoo, Madaline just said pooh pooh.” (Madeline)	Courage
“It’s a bear!” “Into bed under the covers. We’re not going on a bear hunt again.” (We’re Going On A Bear Hunt!)	Fear
“Dodging and shrieking, Mother Bat tried to escape, but the owl struck again and again, kicking Stellaluna into the air.”	Fear
“Maybe she was gobbled up by a shark!” (Miss Nelson is Missing)	Fear
“It was a terribly frightening dragon.” (Harold and the Purple Crayon)	Fear

Table 22. Themes of Danger in Illustrations

Theme: Danger	
Example in Illustrations (All Themes)	Code
Madeline stands up confidently in front of a tiger and catches a mouse as her friends cower in each (Madeline)	Courage
Max stands before the scary Wild Things and leaves (Where The Wild Things Are)	Courage
Character stands up against many creatures to continue his path (Oh, the Places You'll Go!)	Courage
Family runs from a bear (We're Going on a Bear Hunt!)	Fear
Bat is attacked by an owl (Stellaluna)	Fear
Miss Nelson getting eaten by a shark with classmates' faces in shock (Miss Nelson is Missing)	Fear
Harold runs from the dragon guardian in his tree, and is so scared he draws a river to run from it by accident (Harold and his Purple Crayon)	Fear

Courage as a code showed characters standing up for themselves or others, displaying confidence despite supposed danger or fear related to the environment. In the art, it was shown through characters fighting or displaying strength before creatures. In *Madeline*, Madeline stands up against a tiger and catches a mouse in front of her scared friends, helping display Madeline's sense of fearlessness. In the text, it showed up through scary words that didn't impact the character. For example, in *Where The Wild Things Are*, "The wild things roared their terrible roars and gnashed their terrible teeth and rolled their terrible eyes and showed their terrible claws, but Max stepped into his private boat and waved good-bye."

Rest

Rest appeared in 4 CPBs. Rest showed nature as a place to relax, take in, and appreciate. One code with the same name dictated it through both images and word: Rest.

Table 23. Themes of Rest in Text

Theme: Rest	
Example in Text (Rest)	Code
“This is a nice place to rest, thought he” (Caps for Sale)	Rest
“He would sit in its shade all day and smell the flowers” (The Story of Ferdinand)	Rest
“From the porch of her new house Miss Rumphius watched the sun come up; she watched it cross the heavens and sparkle in the water.” (Miss Rumphius)	Rest
“And when he was tired, he would sleep in her shade” (The Story of Ferdinand)	Rest

Table 24. Themes of Rest in Illustrations

Theme: Rest	
Example in Illustrations (Rest)	Code
A man sleeps underneath a tree (Caps for Sale)	Rest
Miss Rumphius rests in bed, stands looking over her deck at the water (Miss Rumphius)	Rest
The boy sits under the tree (The Giving Tree, p. 13)	Rest
Ferdinand rests under a tree and sniffs flowers (The Story of Ferdinand)	Rest

Rest appeared as a sense of expressing how calm or appreciative characters were within nature. In the text, this code was shown through descriptive language to emphasize the character’s love and interaction with the environment which creates a peaceful moment. In *The Story of Ferdinand*, we see this through this quote: “He would sit in its shade all day and smell the flowers.” Similarly, these ideas are portrayed in the art. Through the images, it appeared as characters sleeping, gazing, or laying down within nature. In *The Giving Tree*, the boy rests under the tree’s branches to emphasize his relationship with the tree.

Resource

Resource appeared in 3 CPBs. Resources were depicted through the characters taking from or destroying nature. This theme has one main code, titled Profit.

Table 25. Themes of Resource in Text

Theme: Resource	
Example in Text (Resource)	Code
“How my business did grow! Now, chopping one tree at a time was too slow” (The Lorax)	Profit
“And so the boy cut off her branches and carried them away to build their house” (The Giving Tree)	Profit
“It was Mike Mulligan and Mary Anne and some others who smoothed out the ground and filled in the holes to make the landing fields to the airplanes” (Mike Mulligan and His Steam Shovel)	Profit

Table 26. Themes of Resource in Illustrations

Theme: Resource	
Example in Illustrations (All Themes)	Code
Steam shovels dig a big canal (Mike Mulligan and His Steam Shovel)	Profit
The Once-Ler uses the resources of the environment with his big machines (The Lorax)	Profit
The boy chops down the tree to make a boat (The Giving Tree)	Profit

Profit as a code demonstrated the reliance of humans on the natural world and the complex economic or beneficiary aspects that come of it. In the images, it was shown through humans and machines altering and reshaping the environment for their benefit. In *The Giving Tree*, we see this as the tree giving up her apples to the boy. This was shown when the altering of land was for the purpose of money. In *The Lorax*, it was shown through the Once-Ler cutting down trees for his business. Similarly, this was shown in the text. In *The Lorax*, it showed through this quote: “How my business did grow! Now, chopping one tree at a time was too slow.”

Further themes for eco-literacy

My analysis discovered themes that show that more CPBs support eco-literacy than found previously by the NAAEE-inspired questions. I found that 26 CPBs showed positive or negative environmental values. 20 demonstrated positive values and 6 showed negative values. Of these

26 CPBs with an environmental value, 4 prominent values were identified: Spending Time in Nature, Learning a Lesson, Care and Empathy, and Human Exceptionalism.

Spending Time in Nature

Of the books I reviewed, 17 portrayed prominent outdoor settings or had plots that were influenced by the natural world. These CPBs were backed through long, beautiful and intense illustrations of the environment, nature, and creatures for at least half the pages. Characters typically interacted with nature greatly to proceed with the plot. See Table 14 below for the results.

Table 27. Spending time in nature theme

Book	Pages	Plot Presentation
Last Stop on Market Street	56%	Grandma uses nature and imagination of our environment to show the beauty in everything
The Snowy Day	63%	The boy goes on an adventure into the snow
The Runaway Bunny	66%	The environment is used to show the bunny's escape from its mother
The Lorax	76%	The environment is their home, and is being threatened by the Onceler
We're Going on a Bear Hunt!	82%	The family travels across different landscapes to find a bear, it represents their adventure
Miss Rumphius	84%	She is taught to make the world more beautiful, so she decides to plant flowers across town
The Story of Ferdinand	97%	Ferdinand's relationship with the flowers and his tree displays how calm he is compared to the other bulls
Guess How Much I Love You	100%	The environment is used to explore their game in how much they love each other
Giraffes Can't Dance	100%	Gerald finds his own song after listening to the grass and branches in the breeze
Owl Moon	100%	They go deep into the scary forest to find an owl, the purpose of their adventure
Blueberries for Sal	100%	The family goes out berry picking, and is where they run into a bear
The Giving Tree	100%	The Book follows the tree and her relationship with a boy
Stellaluna	100%	The trees and nature are home to Stellaluna, and it represents the differences her and the birds have
Caps for Sale	100%	The Cap sales men tries to rest on his tree, but the monkeys on the tree keep stealing his hats
The Rainbow Fish	100%	The Rainbow Fish swims around showing off his scale
The Little Engine that Could	100%	With the help of her friends the Little Engine makes it over the mountain
Where the Wild Things Are	88%	Max imagines a forest to explore and hang out with the Wild things

Care and Empathy

Six CPBs demonstrated care and empathy as a theme. Here, characters show care for people and things that are central to the story. They may or may not be directly caring for the planet. For example, in *The Story of Ferdinand*, we can see how Ferdinand values peace and spending time in nature, through his care for the trees and flowers. In contrast, in *A Sick Day for Amos McGee*, we see the animals and humans take care of each other when they are sick.

Table 28. Care and empathy theme

Book	Plot Presentation
A Sick Day for Amos McGee	Amos McGee takes care of the animals when they are sick, and they take care of him when he is sick
Blueberries for Sal	Mother shows Sal how to respect the bear's habitat
Giraffes Can't Dance	Gerald learns everyone has their own dance and feelings to express
If You Give a Mouse a Cookie	The boy and the mouse become friends with each other
Last Stop on Market Street	Everyone has their own individual experiences, and we value that
Stellaluna	Even though they are different, Stellaluna and her bird siblings still treat each other as family
The Story of Ferdinand	Ferdinand finds value in his difference from the other bulls

Learning a Lesson

Six books showed characters learning a moral lesson or concept. Whether as a consequence of an action a character took, or the introduction of a new educational idea, Learning a Lesson as a theme was found to showcase the ways in which the CPBs support eco-literacy by encouraging upstanding and knowledgeable people.

Table 29. Learning a Lesson theme

Book	Plot Presentation
Giraffes Can't Dance	Gerald learns about self-esteem when he discovers his own dance that makes him smile
Miss Rumphius	Miss Rumphius finds that her way of making the world beautiful is by planting flowers
Strega Nona	Strega Nona's trust is broken when Big Anthony goes behind her back to use the magic pasta pot.
The Lorax	The Oncerler shows regret for cutting down all the truffula trees
The Tale of Peter Rabbit	Peter doesn't listen to his mother and runs into the garden, almost getting caught by McGregor
The Very Hungry Caterpillar	The Very Hungry Caterpillar goes into a chrysalis and becomes a butterfly

Human Exceptionalism

Human exceptionalism shows in 6 CPBs. Through this theme, we predominately see humans dominating and triumphing over animals and the planet, especially demonstrating the use of the environment as a resource. For example, in *The Lorax* and *Mike Mulligan's Steam Shovel* we see the dominant ideas of human's using nature for our benefit. Or take *Madeline*, which generally does not interact with animals. Yet, whenever an animal does appear in the book, it is used as something for Madeline to overcome and triumph.

Table 30: Human Exceptionalism Theme

Book	Plot Presentation
Brown Bear, Brown Bear, What Do You See?	Humans and animals are separated in the images, and no environmental background is offered
Madeline	Madeline must stand up to multiple creatures to show how brave she is
Mike Mulligan and His Steam Shovel	The environment is meant to be used and show how great Mike and Sally are
Oh, The Places You'll Go!	Animals must be overcome to continue your journey
The Giving Tree	The boy's relationship with the tree is based on what the tree can give him
We're Going on a Bear Hunt!	The family searches for the bear in its caves. Yet, when they find it, they are terrified

Books marketed as environmental stories

In addition to the books I analyzed, I also did additional analysis of 5 picture books marketed as environmental stories. These are not a part of the popular picture book lists but were rather identified by local library searches for books marketed and categorized as environmental stories. I did this analysis to support the validity of the NAAEE-inspired analysis. Like the earlier books, I gave a final score based on how many questions the environmentally marketed CPB could answer.

Table 31: Environmental Characterization for Environmental Marketed Stories

Book	Complete Score
We're Going on a Leaf Hunt!	11
Lola Plants a Garden	3
Because of an Acorn	10
The City Tree	20
To Change A Planet	18

Discussion

Introduction

Initial NAAEE-inspired analysis of 40 popular children's picture books found that 80% do not portray environmental messaging that supports the development of eco-literacy. This is in line with previous literature that has concluded most popular children's literature in the U.S. does not meet environmental education goals (Boudreaux, 2006). Despite these findings, in my analysis I discovered that many of the children's books portrayed themes that promote the development of eco-literacy outside of the directed NAAEE-inspired questions. These books do not directly explore environmental ideas or plots, yet they still support eco-literacy through themes that promote appreciation, empathy, agency, and ethics in emergent readers. My analysis also identified several key takeaways from children's literature on the importance of characterization, framing, and appropriate audience to support eco-literacy. Finally, I concluded with recommendations for scholars and reading supporters in understanding children's literature role in supporting eco-literacy.

NAAEE-inspired analysis: a failure in transferable questions?

Eco-literacy encompasses more than just understanding what problems our planet faces. Eco-literacy helps bridge awareness to action by incorporating steps to address the knowledge, attitudes, and skills of an individual (*Tbilisi Declaration*, 1977). One novel aspect of this thesis was introducing the NAAEE's *K-12 Environmental Education Guidelines for Excellence* as an analytical tool to investigate how popular children's literature may support eco-literacy. My goal in using the NAAEE as a basis for my analysis was an attempt to grasp these diverse aspects of eco-literacy. However, what I noticed from my analysis is that the NAAEE-inspired questions

seemed to only analyze for the awareness and knowledge of environmental issues. For example, although I based my questions relatively close to the NAAEE's descriptions in each Strand, most of the questions ended up inquiring about environmental problems directly. Since *The Lorax* is both a popular book and is a book that is marketed for portraying environmental ideas, it scored quite high with the NAAEE-inspired questions. In contrast, the rest of the books held various plots that covered a wide range of genres and stories, and they scored lower.

The guidelines were created with the intention of supporting the development of a child's eco-literacy and not for reviewing books. Because of this, one limitation of this thesis may be that the books scored poorly because they themselves were not stories directly sharing plots about environmental problems. This became evident as I continued my analysis beyond the NAAEE-inspired questions. I later found many of the books had values or themes that supported eco-literacy in ways that encouraged positive attitudes and outlooks towards our world.

The guidelines seemed to favor stories with plots directly about environmental or animal-related concerns. To reference the Awareness to Action framework again, it is almost as if the questions are indirectly ignoring the attitudes part of the framework. A sense of empathy and care seemed to show adjacently in questions but wasn't ever directly addressed. For example, while the framework supports children in recognizing their responsibility and agency toward the environment, questions don't address the need for them equally to have empathy or to care for the environment. Consequently, I think the initial NAAEE analysis focused too directly on stories about the environment or animal-related concerns.

I recommend future researchers should create their own framework to analyze the stories. I must emphasize though, that this thesis was not an evaluation of the quality of these books as materials. Rather, it was to see how the stories themselves incorporate and support the

development of eco-literacy. As future research studies the intersection of environmental education and literature, I again emphasize the importance in creating a framework that analyzes these messages while also not limiting itself to one type of analytical questions.

Supporting eco-literacy beyond direct environmental messaging

My analysis determined that while many of the books do not support eco-literacy through direct environmental messaging, they instead support eco-literacy by instilling appreciation, empathy, agency, and ethics in emergent readers.

Direct environmental messaging

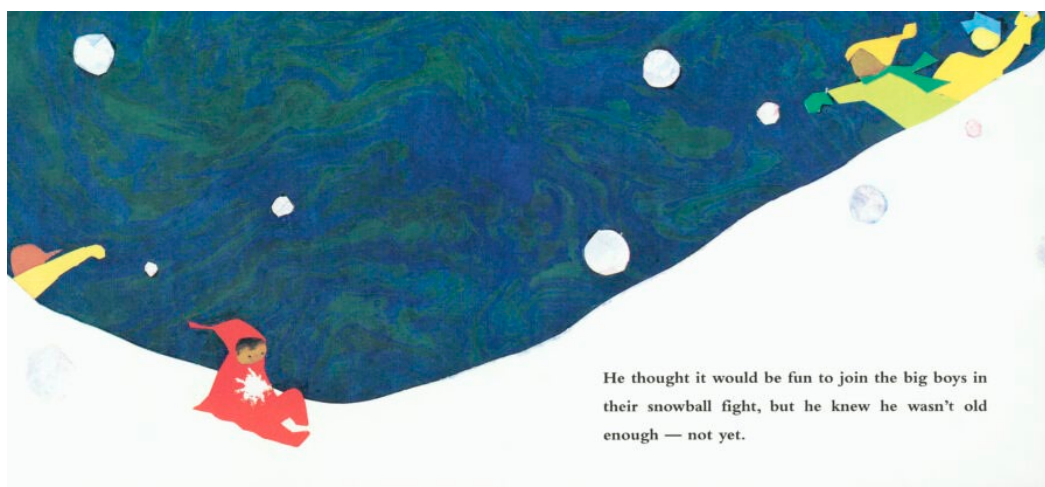
My findings support the NAAEE-inspired analysis which determined only 8 CPBs support eco-literacy through direct environmental messages. *Blueberries for Sal*, *Last Stop on Market Street*, *Miss Rumphius*, *Owl Moon*, *Stellaluna*, *The Lorax*, *The Story of Ferdinand the Bull*, and *Where the Wild Things Are* all contain beautiful imagery and relationships between humans, animals, and the environment. Books like *Last Stop on Market Street* and *Where the Wild Things Are* used the creative imaginations of characters to explore the magical perspectives of the world. While not all were as obvious as *The Lorax*, they each emphasized environmental themes. Interestingly, when compared to the 5 marketed environmental books, these CPBs still scored generally lower on the NAAEE-inspired analysis. This further demonstrates the lack of alignment created by applying these broad guidelines focused on developing eco-literacy to popular children's literature. While these books did cover environmental messages more directly, they were still not explicitly written with the intent of being a story about environmental ideas. They supported eco-literacy in other ways, particularly through their beautiful imagery of the environment and relationships they inspired between humans and animals.

Supporting eco-literacy through new themes

I believe sensitivity, or a person's "care and positive feelings" toward the environment is one of the most critical contributions children's books can have in supporting eco-literacy (National Association for Environmental Education (NAAEE), n.d., p. 1). Without a reason to care about our planet, there is nothing that can turn the awareness of an environmental issue into a motivation to act and solve the problem. As aforementioned, the initial NAAEE-inspired analysis lacked in recognizing these attitude-based efforts. However, my further analysis found themes of Spending Time in Nature, Care and Empathy, Learning a Lesson, and even Human Exceptionalism; which shows more books support the development of eco-literacy by instilling attitudes of appreciation, empathy, agency, and ethics in readers.

Take the theme Spending Time in Nature. It may seem simple, but a general appreciation for nature is built by our understanding and experiences with the environment Books with this theme contain spreads of pages of beautiful imagery focused on the natural world. For example, the book *The Snowy Day* explored the main character's adventure through a snowy world, with aesthetic images contributing to his fun playful adventure.

Figure 5. The Snowy Day



(*The Snowy Day* by Ezra Jack Keats (Board Book) | Scholastic Book Clubs, 2025)

This general appreciation, as I reiterate Glotfelty's argument, raises consciousness of our environmental world, acting as the basis into eco-literacy values by increasing our awareness (1996, p. xxiv). It builds on our sensitivity toward our environment by building a love and respect for nature as an everyday part of our lives. Another great example of this is *The Rainbow Fish*, which demonstrates the beauty of the natural marine ecosystems throughout its art. Neither of these stories explore environmental ideas directly through their plots, but they support eco-literacy, nonetheless.

Care and Empathy are important contributors to eco-literacy too. Books such as *If You Give a Mouse A Cookie* and *A Sick Day for Amos McGee* do not significantly include environmental messaging. Their stories do, however, emphasize key themes of care and relationships between themselves and animals.

Figure 3. A Sick Day for Amos McGee



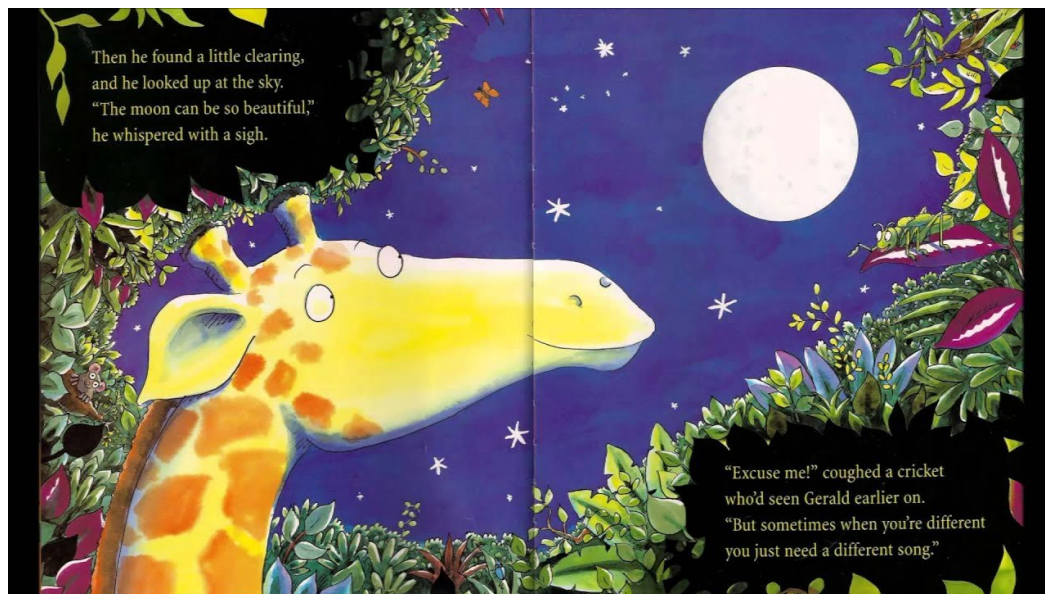
(*A Sick Day for Amos McGee*, 2016)

In Figure 3, you can see in *A Sick Day for Amos McGee*, the characters take care of Amos when he is sick, after Amos took care of them in the zoo. Through this plot and similar images, readers

may be encouraged by Amos and the animals to take similar care of their own animals. Not only is there a sensitivity of love and respect demonstrated through this friendship, it also explicitly displays empathy toward the more-than-human world.

These values can be taken further when exploring the theme of Learning a Lesson. This theme shares a moral, ethical, or conceptual lesson of some sort with the reader. These could range from science lessons like the life cycle of a butterfly in *The Very Hungry Caterpillar*, or to lessons that inspire the reader to be less greedy or follow directions like in *Strega* or to find your own voice like in *Giraffes Can't Dance*. In *Giraffes Can't Dance*, Gerald the giraffe learns how each person must find their own song that makes them special.

Figure 4. Giraffes Can't Dance



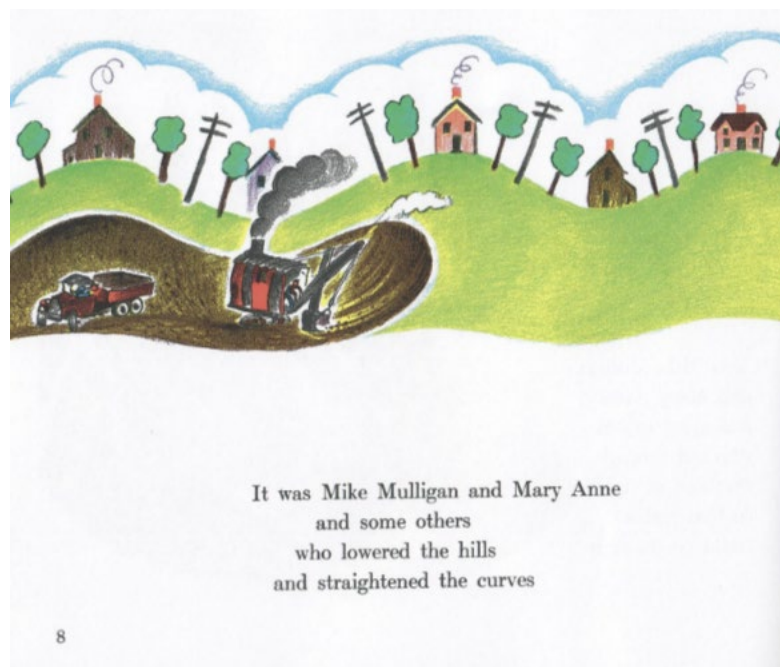
(*Giraffes Can't Dance*, 2025)

While not directly meeting NAAEE standards for eco-literacy, this book shows a lesson in celebrating each other's differences. This arguably meets the self-efficacy, motivation, and intention criteria for the disposition section of the NAAEE's eco-literacy document. The rich biodiversity across the book too, could support the relationship building aspect of eco-literacy. It

encourages readers to believe in themselves, their intentions, and celebrates both the individual and collective community with its message.

The final theme I found is Human Exceptionalism. While this theme has negative connotations, there is an important aspect in showing the less-than-perfect side of human-environmental relationships. In this theme, human wants and needs are put on a pedestal above nature and the environment. The environment may or may not have been central to the plot of the story, but one pattern was common: the environment, both living and non-living, are here to benefit humans. Take *Mike Mulligan's Steam Shovel* and *The Giving Tree*, which both demonstrate the extractive nature of human exceptionalism. In these books, the environment is represented as a resource.

Figure 6. Mike Mulligan and His Steam Shovel.



It was Mike Mulligan and Mary Anne
and some others
who lowered the hills
and straightened the curves

8

(*Mike Mulligan and His Steam Shovel*, 2022)

Specifically, I look further into the story of *Mike Mulligan's Steam Shovel*. In this story, machinery has its own agency, with Sally, the machine, befriending Mike as they continue their

work digging up the earth. Yet, while this object has agency and autonomy in the story, the earth doesn't. Instead, the earth is made to be re-shaped and used as a tool to show how great Sally and Mike are as a team. Even in *The Giving Tree*, when the tree has its own agency, ideas, and power; it is shown through her giving up everything she has to the boy.

Although these are not necessarily positive framing of the environment, they may still be beneficial to promoting eco-literacy. As a part of the knowledge section, eco-literacy is the importance in understanding the social, cultural, and political systems surrounding the environment along with the competency to understand the human dimensions of environmental issues. Books like *The Giving Tree* and *Mike Mulligan's Steam Shovel*, while demonstrate themes that work towards ideas of human exceptionalism, equally meet these standards. Other frameworks for environmental education, specifically through the Learning in Places Collaborative have also emphasized the importance in understanding these socio-ecological relationships (Relationships in Socio-ecological Systems, 2020). Whether political, cultural, economic, or scientific, our relationships with the natural world are based off our complex interactions with other values and systems. Identifying relationships like the economic relationships in *The Giving Tree* can help young readers consider their own values when interacting with environmental ideas. One way to support less-than-positive environmental messaging in literature is by supplementing it with age-appropriate conversations on the factors that influenced characters to make decisions in the story.

How the environment was portrayed and the implications of no messaging

Another facet of my analysis was identifying how the physical environment was used and characterized in the story. Interestingly, what I found was a need for balance between a diversity

of stories, while also still preserving plots, characters, and settings that inspire relationships with the natural world.

Themes in environmental relationships or use

Most of the CPBs presented some sort of thematic characterization of the environment. Most of these characterizations were positive, too. Most of the CPBs presented some sort of thematic characterization of the environment. Similarly, most were positive. Themes of Home, Play, Adventure, and Rest dominated across the literature. This meant that characters in these CPBs were playing, dancing, exploring, travelling, and resting or taking in the outdoors. Some of these interactions were more frequent in the stories than others. But the common theme between these books showed stories that brought characters out into nature.

For example, *The Napping House* takes place almost entirely indoors. Yet, on the last several pages, we were rainbows, happy people, and pets running around outside. Here, the environment is represented as a place to enjoy themselves after their nap. This representation isn't consistent throughout the story, but it emphasizes the environment as something to look forward to and play.

Figure 7. The Napping House



(*“The Napping House”*, 2023)

Habitat, but not home?

One interesting distinction in these characterizations was the fact the theme of Home only ever showed in books focusing on animals. The natural world was never showcased as the home for humans. Rather, humans always went back to their man-made built environments. In general, these systems of nature were rarely interconnected amongst humans, animals, and the environment. This is an important distinction to several of the environmentally market books, which emphasized the interconnectedness of humans with the natural world. Take *The City Tree*, for example, which depicts the main character alongside the creatures and the tree, and whose plot focuses on the tree becoming a part of her home in the city neighborhood.

Figure 8. The City Tree



(*The City Tree*, 2023)

While the characterizations in these CPBs overall may not be holistically tied to humans and systems like many directly marketed environmental stories, this still yields a good indication that most children's picture books, regardless of it meeting direct eco-literacy standards, at least present the environment in a positive light to readers.

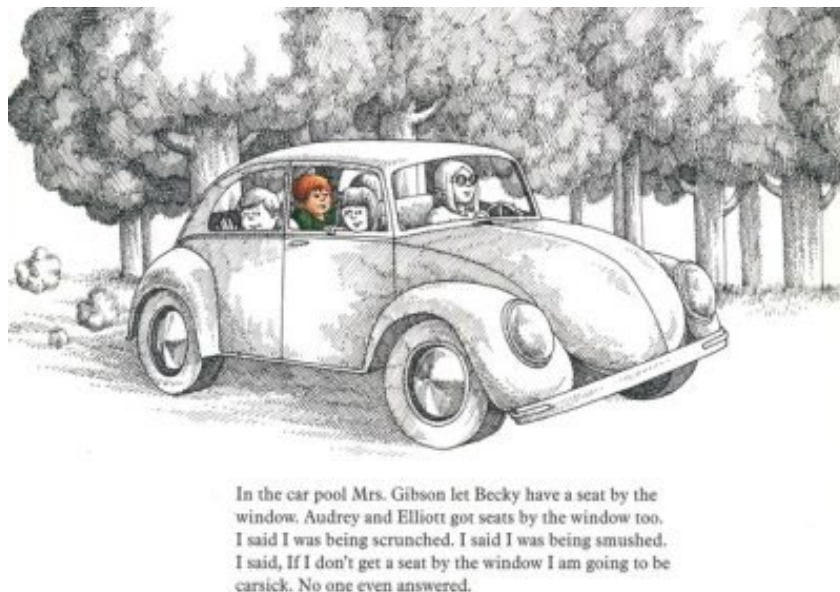
However, current literature in the field of environmental education from the Learning in Places Collaborative have discussed the need to consider humans a part of nature, rather than apart from, in creating cognitive models that reflect the “deferential or reciprocally powered relationships” that extend to more-than human life (Nature-Culture, 2021). When considering the themes of home in my analyzed literature, it seems clear that popular children's picture books support more nature-culture divide models than nature-culture complementarities. While these books may support eco-literacy in other ways, many of the most popular children's books continue to portray an “a part from” model in which humans are superior, or above, or more important than the rest of the living world. .

Setting and the implications of no thematic characterizations

A total of 11 books demonstrated the theme of setting. These books characterized the environment as a static background. Essentially, characters in these books did not interact with the environment. Rather, the environment was a static setting to show readers where the story was taking place.

Patterns in the content of these 11 books suggest two factors that contributed to this lack of thematic characterization. Namely, most of these books did not depict the environment beyond a few sparse illustrations or pages and the remaining few did not depict the environment at all. When the environment was illustrated in the story, it was to demonstrate the literal setting the characters were in.

Figure 9. *Alexander and The Terrible, Horrible, No Good, Very Bad Day*



(*Alexander and the Terrible, Horrible, No Good, Very Bad Day*, 2025)

For example, in *Alexander and The Terrible, Horrible, No Good, Very Bad Day*, trees and grass were drawn to indicate the family is driving out on the road. Yet, beyond this short spread of pages, there is only one other time the family is outside. And because neither time do

the characters interact with the environment directly, there is no thematic characterization that can be made beyond it being the setting.

But what does it mean to have no characterization? In a way, no message is a message in itself. It is basically telling readers that the environment is neutral, static, a background. If the environment is not important enough to interact with to tell a story, how does this bode to the readers interaction with the environment in real life? The natural world in a story is much more important than just creating a sense of place. What is presented in our pages influences the interactions in real life.

Framing

One of the most significant findings of this thesis for the greater context of children's literature, however, is the importance in framing. While some may argue that a young reader may not pick up on certain themes explored in this thesis, there continues to be the possibility that they are picking up these ideas unconsciously.

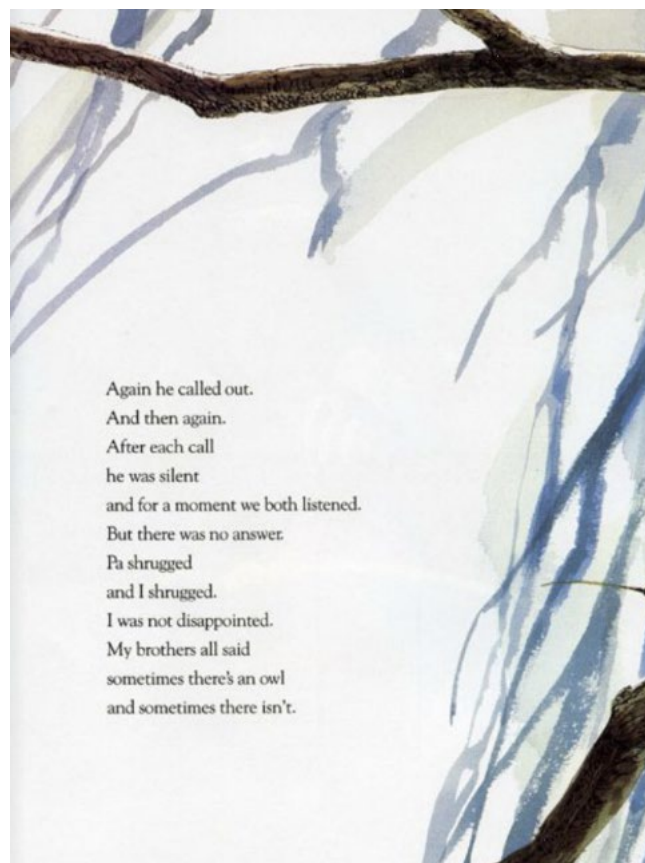
Respect versus disturbance

When making a conscious effort to choose literature that reflects eco-literacy values, it is important to understand why you are doing so. The greatest examples of this from the CPBs are *Owl Moon* and *We're Going on A Bear Hunt!* The plot of these CPBs is very similar. In each, a family goes on an adventure to find an animal out in the wilderness. Yet, there are several key differences that ultimately categorize *Owl Moon* into the *Pro-Environmental* category, and *We're Going on A Bear Hunt!* in the *Anti-Environmental* category, which shows the difference, and importance, of framing in a story.

The first difference in framing appears when the characters begin their adventure. Each CPB starts with a family entering their journey out into the wilderness. In *Owl Moon*, it is a

father and his daughter in search of an owl. In *We're Going on A Bear Hunt!* it is a family hunting for a bear. However, to search for an animal, as *Owl Moon* calls it, “to go owling”, gives very different connotations to readers than hunting. To go on a hunt often entails hunting an animal to kill it, or a sense of pursuing a person with hostility. While each book is essentially showing the same thing, already, there is a difference in how the stories are framed. One key difference in framing is how the *Owl Moon* starts its adventure by acknowledging and respecting the wilderness. There is an important conversation that appears on one of the beginning pages, where the girl and her Pa fail to hear the response of an owl after calling out for it.

Figure 11. Owl Moon



(*Owl Moon*, 2025)

This short exchange, which refers to her brothers' failed experiences of finding the owl, offers a sense of respect to the creature. When adventuring out into the wilderness, *Owl Moon* offers a

realistic expectation to readers. It is not a demand to see the owl and frolic around its habitat, but an invitation to possibly see the owl show up.

The final and key difference between the stories, though, is the difference in how the CPBs react upon discovering their creature. In *Owl Moon*, the characters patiently wait to find the owl. When they do finally witness the owl on a branch, they stay in silence. Then, after the owl flies away, “Time to go home,” Pa said to me. I knew then I could talk, I could even laugh out loud. But I was a shadow as we walked home.” Here, there is no grand significant ending. Rather, there is a sense that the girl is grateful to see the owl. They came, saw it, and left without a trace.

In contrast, *We’re Going on A Bear Hunt* concludes with a rather frightening scene. After spending the whole book exploring the wilderness for a bear, they finally come across one directly in its home, a small cave. They go into the cave, and upon their surprise, “One shiny wet nose! Two big furry ears! Two big goggly eyes! IT’S A BEAR!!!!” The characters are terrified and run fleeing back through the cave out into the wilderness. This emphasis of fear is exacerbated by both the text and illustrations. The text, by capitalizing and adding additional exclamation points upon their encounter with the bear, and the images as the bear actively chases them as they run back home. By the end of it, they run and lock their doors to hide from the bear.

Figure 12. We're Goin on A Bear Hunt!



Shut the door.
Back upstairs
Into the bedroom.



Into bed.
Under the covers.

(*We're Going on a Bear Hunt*, n.d.)

A whole journey that ends with them completely scared of the bear. Yet, they were the ones hunting for the bear, the ones seeking the bear out in its own habitat. However, the framing of this seemingly portrays the bear as the perpetrator for following them back home.

For most young readers, they may find the story funny. That is likely why it became such a popular and recommended book. Yet, when compared to *Owl Moon*, there are several conscious decisions that make *Owl Moon* the better one. If you were choosing amongst the two to present eco-literacy ideas for an eco-conscious collection of literature, *Owl Moon* is ultimately the better choice.

Appropriateness

As mentioned in the literature review, it is immensely important to discuss the developmentally appropriateness of books for certain ages. Of course, you are not going to want to discuss the large socio-ecological systems of climate change to a 3-year-old. But *The Very Hungry Caterpillar* is a great example of something that is developmentally appropriate for various young ages. This book shows an appreciation for nature in a few ways to the youngest of readers: it centers environmental systems of change and appreciation for nature through beautiful artists drawings. Similarly, because it's a funny story about a caterpillar who eats a lot, readers can generally enjoy it. Importantly, it teaches about the life cycle of a butterfly in a very fun way. It demonstrates a great way books for younger audiences can still support eco-literacy values that meet the knowledge and dispositions necessary to build from.

Limitations and future potential research

There are some key limitations to this study. To reiterate, the NAAEE framework did not seem to properly categorize the books as supporting eco-literacy or not. This framework was directed more specifically toward individual eco-literacy, and not for measuring eco-literacy in literature. As I emphasized earlier, further research should consider designing a specific framework for addressing eco-literacy values in literature.

As I mentioned earlier, the sample pool for my data does not reflect the entirety of the current landscape in popular children's literature. I determined my sample using recommended books from as large of a variety of sources as I could find. Yet, this sample still may not accurately represent what books children are reading most. By pulling the sample pool from numerous sources and groups, I did the best I could to curate the most accurate collection possible for this study. However, understanding these factors and other impacts the relationships,

histories, values, and identities of readers have on their available literature is an important factor that this thesis was unable to address. Both environmental education and literature have an important role in informing children about the environment around them. They are the informal ways children can learn and engage with their world, and it is essential they are accessible (Culture and Identity, 2020). As researchers continue to address the ways literature may support eco-literacy, I want to emphasize the need for investigating the various literature that is available and unavailable to communities. While my literature may be reflective of what is popular online, it may not be reflective of what is available to people around the world. I hope future research can look into that more.

Implications

Picture books have been demonstrated to have a unique influence on kids. However, whether these influences are cognitively recognized by the reader or reading supporters may be a different story. *The Giving Tree*, in particular, is a classic piece of children's literature that has been more staunchly scrutinized in recent years. While for decades it has been enjoyed by children across the world, including myself, it has become a hot topic for the messages it offers to readers. Without even considering the environmental aspect, do we really want to teach our young readers that it is okay to give up everything to make someone else happy? These are the types of messages that have been considered as of late, and an argument as to why it is important to similarly look at these messages in CPBs for environmental values. The environment is everywhere and everything, and as climate change worsens, the question remains: do you want your readers to understand and appreciate the values of our world; the interconnected nature of humans and the planet?

Recommendations for Reading Supporters

Based on the results of this analysis, this thesis offers 3 recommendations for supporters of young readers who wish to curate collections of books that work toward eco-literacy values:

1. **Continue reading popular stories.** Don't stop reading books just because they don't have direct environmental messaging, rather, recognize the values they do share with your readers. Continue reading the books that encourage your reader to be empathetic and to care for animals, people, and the planet. Find the stories that teach a lesson about different cultures, or the ones with beautiful illustrations that excite your reader to learn more about the world. Prioritize the few that combine these ideas and bring the environment to the forefront of the story.
2. **Consider and question the stories with less-than perfect messages.** When you do eventually come across books that show the values of human exceptionalism, greed, or the environment as a resource, consider having developmentally appropriate conversations about them. Conversations are the perfect foundation to reinforce and expand upon a book's ideas (O'Brien & Stoner, 1987).
3. **Supplement with environmentally marketed stories.** Books that are marketed as about environmental rights, sustainability, the planet, and climate change, are still your best bet for direct environmental messaging in support of eco-literacy. Seek resources from environmental organizations, book publishers like Scholastic, and lists from organizations like Mighty Girl which already curate collections of environmental stories.

Conclusion

As threats to our environment like climate change worsen, it is critical that we provide positive framings of our environment to young children. This thesis aimed to investigate how popular children's literature—the mainstream classics recommended over and over again—may support the development of eco-literacy. By identifying environmental themes in children's literature, this thesis addressed how environmentally minded supporters to emergent and early readers can curate literature that enhances eco-literacy values as outlined by the NAAEE's guidelines for EE.

The initial NAAEE-inspired analysis found that 80% of the popular children's books do not provide significant environmental messaging to support the development of eco-literacy. However, my further analysis demonstrates how many more books can support eco-literacy through instilling appreciation, empathy, agency, and ethics in emergent readers. With age-appropriate conversations can books with even less-than-positive framing support eco-literacy.

Finally, this thesis offered a recommendation for supporters of young readers in curating children's literature that better reflects eco-literacy values. This thesis concludes that readers should continue reading popular children's picture books, but for direct environmental values, collections should be supplemented with books marketed with environmental stories.

Hopefully everyone today is familiar with the impacts of climate change. Our rising oceans, melting glaciers, increasing temperatures are worrisome, but a simple awareness of these issues does not help solve them. It is important to turn awareness into action, and I hope this thesis demonstrates that children's literature may be one part of the solution.

References

- A Sick Day for Amos McGee*. (2016). Ay Caramba Books. <https://www.aycaramba.us/product-page/a-sick-day-for-amos-mcgee>
- About EE and Why It Matters*. (n.d.). North American Association for Environmental Education. <https://naaee.org/about/ee>
- Adukia, A., Eble, A., Harrison, E., Runesha, H. B., & Szasz, T. (2023). What We Teach About Race and Gender: Representation in Images and Text of Children's Books. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4416772>
- Alexander and the Terrible, Horrible, No Good, Very Bad Day*. (2025). Amazon.ca. <https://www.amazon.ca/Alexander-3-Book-Set-Terrible-2008-01-01/dp/0590022016>
- Ardoin, N. (n.d.). *The Benefits of Environmental Education for K–12 Students*. North American Association for Environmental Education. <https://naaee.org/programs/eeworks/benefits-k12-students>
- Asenath, T., & Santhanalakshmi, A. (2021). A Study Of Eco-Criticism For The Relationship Between Natural And Human Environments. *Journal of Language and Linguistic Studies*, 17(2), 1285–1289. <https://www.jlls.org/index.php/jlls/article/download/4619/1466>
- Boudreaux, B. (2006). The Representation of the Environment in Children's Literature. *University of New Orleans Theses and Dissertations*. <https://scholarworks.uno.edu/td/335/>
- Boutte, G. S., Hopkins, R., & Waklatsi, T. (2008). Perspectives, Voices, and Worldviews in Frequently Read Children's Books. *Early Education & Development*, 19(6), 941–962. <https://doi.org/10.1080/10409280802206643>
- Bradbery, D. (2013). Bridges to Global Citizenship: Ecologically Sustainable Futures Utilising Children's Literature in Teacher Education. *Australian Journal of Environmental Education*, 29(2), 221–237. <https://doi.org/10.1017/aee.2014.7>
- Ece Demir-Lira, Ö., Applebaum, L. R., Goldin-Meadow, S., & Levine, S. C. (2019). Parents' early book reading to children: Relation to children's later language and literacy outcomes controlling for other parent language input. *Developmental Science*, 22(3), e12764. <https://doi.org/10.1111/desc.12764>
- Echterling, C. (2016). How to Save the World and Other Lessons from Children's Environmental Literature. *Children's Literature in Education*, 47(4), 283–299. <https://doi.org/10.1007/s10583-016-9290-6>

Environmental Literacy Framework | North American Association for Environmental Education. (n.d.). Naaee.org. <https://naaee.org/about/ee/environmental-literacy-framework>

Febriana Tamrin, A. (2018). *Children's Literature: As a Way of Raising Environmental Consciousness-A Study*. Annual Seminar on English Language Studies .
https://www.researchgate.net/publication/325011433_Children's_Literature_As_a_Way_of_Raising_Environmental_Consciousness-A_Study

Fromm, H., & Glotfelty, C. (1996). *The ecocriticism reader : landmarks in literary ecology*. Athens, Ga. Univ. Of Georgia Press. chrome-extension://efaidnbmnnnibpcajpcgiclfndmkaj/http://ereserve.library.utah.edu/Annual/C LCS/6900/Gerstenberger/Glotfelty1996.pdf

Gaard, G. (2008). Toward an Ecopedagogy of Children's Environmental Literature. *Www.academia.edu*.
https://www.academia.edu/2606389/Toward_an_Ecopedagogy_of_Childrens_Environmental_Literature

Giraffes Can't Dance. (2025). Fliphtml5.com. <https://online.fliphtml5.com/zcjyw/pfgu/#p=11>

Gonen, M., & Guler, T. (2011). The Environment and Its Place in Children's Picture Story Books. *Procedia - Social and Behavioral Sciences*, 15, 3633–3639.
<https://doi.org/10.1016/j.sbspro.2011.04.347>

Gough, A. (2016, January 1). *The Emergence of Environmental Education: a "history" of the field*.
https://www.researchgate.net/publication/303333786_The_Emergence_of_Environmental_Education_a

Greenaction. (2024). *Environmental Justice & Environmental Racism – Greenaction for Health and Environmental Justice*. Greenaction. <https://greenaction.org/what-is-environmental-justice/>

Hooykaas, M. J. D., Holierhoek, M. G., Westerveld, J. S., Schilthuizen, M., & Smeets, I. (2022). Animal biodiversity and specificity in children's picture books. *Public Understanding of Science*, 31(5), 671–688. <https://doi.org/10.1177/09636625221089811>

K-12 Environmental Education: Guidelines for Excellence. (2019). EePRO.
<https://eeepro.naaee.org/resource/k-12-environmental-education-guidelines-excellence>

K-12 Environmental Education: Guidelines for Excellence Executive Summary. (n.d.). Retrieved January 12, 2025, from https://dg56ycbv1jkqr.cloudfront.net/sites/default/files/eeepro-post-files/k-12_ee.executive_summary_2019_0.pdf

Kalb, G. R. J., & van Ours, J. C. (2013). Reading to Young Children: A Head-Start in Life? *SSRN Electronic Journal*, 40. <https://doi.org/10.2139/ssrn.2267795>

- Kirk, K. A., & Karbon, J. (1986). Environmental Content in Award-Winning Children's Literature: 1960 through 1982. *The Journal of Environmental Education*, 17(3), 1–7. <https://doi.org/10.1080/00958964.1986.9941411>
- Lakoff, G. (2010). Why It Matters How We Frame the Environment. *Environmental Communication*, 4(1), 70–81. <https://doi.org/10.1080/17524030903529749>
- Law, S. (2012). *EFFECTIVE STRATEGIES FOR TEACHING YOUNG CHILDREN CRITICAL THINKING THROUGH PICTURE BOOK READING: A CASE STUDY IN THE NEW ZEALAND CONTEXT*. <https://core.ac.uk/download/pdf/41337439.pdf>
- Learning for All. (2016). *Emergent literacy | Literacy Instruction for Students with Significant Disabilities*. <https://literacyforallinstruction.ca/communication/>
- Learning in Places Collaborative. (2020). Framework: Culture, Learning, and Identity. Bothell, Seattle, WA & Evanston, IL: Learning in Places.
- Learning in Places Collaborative. (2020). Framework: Relationships in Socio-Ecological Systems. Bothell, Seattle, WA & Evanston, IL: Learning in Places.
- Learning in Places Collaborative (2021). About the Project. Learning in Places Website. <https://learninginplaces.org/about/>
- Learning in Places Collaborative. (2021). Framework: Nature-Culture Relations. Bothell, Seattle, WA & Evanston, IL: Learning in Places.
- Learning in Places Collaborative (2021). Storyline Frameworks for Educators. Learning in Places Website. <https://learninginplaces.org/storyline-frameworks/>
- Lindgren Leavenworth, M., & Manni, A. (2020). Climate fiction and young learners' thoughts—a dialogue between literature and education. *Environmental Education Research*, 27(5), 727–742. <https://doi.org/10.1080/13504622.2020.1856345>
- Martín, N., Hageman, J., Montgomery, S., & Rule, A. (2019). A Content Analysis of Thirty Children's Picture Books about Ecology. *Journal of STEM Arts, Crafts, and Constructions*, 4(1). <https://scholarworks.uni.edu/journal-stem-arts/vol4/iss1/5/>
- Mass Communication Theory. (2014, February 18). *Framing Theory*. Mass Communication Theory. <https://masscommtheory.com/theory-overviews/framing-theory/>
- Mike Mulligan and His Steam Shovel* by Virginia Lee Burton - Flipbook by Bridget Saltmarsh | FlipHTML5. (2022, November 4). FlipHTML5. https://fliphtml5.com/tbjc/yavs/Mike_Mulligan_and_His_Steam_Shovel_by_Virginia_Lee_Burton/43/

- Muthukrishnan, R. (2019). Using Picture Books to Enhance Ecoliteracy of First-Grade Students. *The International Journal of Early Childhood Environmental Education*, 6(2), 19. <https://files.eric.ed.gov/fulltext/EJ1225653.pdf>
- Muthukrishnan, R., & Kelley, J. E. (2016). Depictions of sustainability in children's books. *Environment, Development and Sustainability*, 19(3), 955–970. <https://doi.org/10.1007/s10668-016-9778-7>
- National Association for Environmental Education (NAAEE). (n.d.). *Brief Descriptions of the Competencies, Knowledge, and Dispositions listed in the Executive*. Retrieved January 24, 2025, from <https://cdn.naaee.org/sites/default/files/inline-files/briefdesccompknowdisp.pdf>
- Niland, A. (2023). Picture Books, Imagination and Play: Pathways to Positive Reading Identities for Young Children. *Education Sciences*, 13(5), 511. <https://doi.org/10.3390/educsci13050511>
- North American Association for Environmental Education. (2011). *Developing a Framework for Assessing Environmental Literacy: Executive Summary*. <https://naaee.org/sites/default/files/inline-files/envliteracyexesummary.pdf>
- O'Brien, K., & Stoner, D. (1987). Increasing Environmental Awareness through Children's Literature. *Reading Teacher*, 41(1), 14–19. <https://eric.ed.gov/?id=EJ359062>
- Owl Moon. (2025). Fliphtml5.com. <https://online.fliphtml5.com/bbyfq/yymh/#p=11>
- Ramos, A., & Ramos, R. (2011). *Ecoliteracy through Imagery: a close reading of two wordless picture books*. <https://doi.org/10.1007/s10583-011-9142-3>
- Rifaat Salman Salih. (2023). The Importance of Ideology in Shaping Children's Cultural Values through Literature. *International Journal of English Literature and Social Sciences*, 8(6), 267–271. <https://doi.org/10.22161/ijels.86.41>
- Rule, A., & Atkinson, J. (1994). Choosing Picture Books about Ecology. *The Reading Teacher*, 47(7), 586–591. <http://www.jstor.org/stable/20201322>
- Sheldon-Dean, H. (2023, January 19). *Why Is It Important to Read to Your Child?* Child Mind Institute; Child Mind Institute. <https://childmind.org/article/why-is-it-important-to-read-to-your-child/>
- Stapp, W. B. (1969). The Concept of Environmental Education. *Environmental Education*, 1(1), 30–31. <https://doi.org/10.1080/00139254.1969.10801479>
- Tbilisi Declaration. (1977). www.gdrc.org. <https://www.gdrc.org/uem/ee/tbilisi.html>

- The City Tree*. (2023). Books of Wonder.
<https://booksofwonder.com/products/9780358423416?variant=40514524643370>
- “*The Napping House*” *Giclée Prints Art Show*- “*Where No One Now is Sleeping*.” (2023, June 3). Audrey Wood. <https://audreywood.com/product/the-napping-house-giclee-prints-art-show-where-no-one-now-is-sleeping/>
- The National Children's Book and Literacy Alliance. (2015). *Why Do Kids Need Books? - The National Children's Book and Literacy Alliance*. The National Children's Book and Literacy Alliance. <https://thencbla.org/advocacy/why-do-kids-need-books/>
- The Snowy Day* by Ezra Jack Keats (Board Book) | Scholastic Book Clubs. (2025). Scholastic.com. <https://clubs.scholastic.com/the-snowy-day/9780439116749-rco-us.html>
- United Nations Educational, Scientific and Cultural Organization. (1978). *Intergovernmental Conference on Environmental Education Tbilisi, USSR, 14-26 October 1977: final report*. Unesco.org. <https://unesdoc.unesco.org/ark:/48223/pf0000032763>
- United States Environmental Protection Agency. (2018, November 5). *What is Environmental Education?* US EPA. <https://www.epa.gov/education/what-environmental-education>
- van der Beek, S., & Lehmann, C. (2022). *What Can You Do as an Eco-hero?: A Study on the Ecopedagogical Potential of Dutch Non-fictional Environmental Texts for Children*. Children's Literature in Education; Springer Netherlands.
<https://research.tilburguniversity.edu/en/publications/what-can-you-do-as-an-eco-hero-a-study-on-the-ecopedagogical-pote>
- Wald, S. (2013). Teaching Diversity with an Inclusive Ecocriticism. In *Teaching Guide to The Colors of Nature*.
file:///C:/Users/pdxol/Downloads/Teaching_Diversity_with_an_Inclusive_Ec.pdf
- Wells, R., & Zeece, P. D. (2007). My Place in My World: Literature for Place-Based Environmental Education. *Early Childhood Education Journal*, 35(3), 285–291.
<https://doi.org/10.1007/s10643-007-0181-8>
- We're going on a bear hunt*. (n.d.). Fliphtml5.com. <https://fliphtml5.com/fwfrb/xhyx/basic>
- Williams, J. A., Podeschi, C., Palmer, N., Schwadel, P., & Meyler, D. (2011). The Human-Environment Dialog in Award-winning Children's Picture Books*. *Sociological Inquiry*, 82(1), 145–159. <https://doi.org/10.1111/j.1475-682x.2011.00399.x>
- Zynda, D. M. (2007). *ARE ENVIRONMENTAL EDUCATION PICTURE BOOKS APPROPRIATE FOR ELEMENTARY-SCHOOL CHILDREN?: A CONTENT ANALYSIS*.
<https://ils.unc.edu/MSpapers/3304.pdf>