



Cultivating STEM Identity and Belonging Through Children's Literature

Presentation at 2023 ASK Conference

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Resources

1. STEM4EC. Storybook Conversations Blog Posts
 - a. Vance, M. (2022). Positive Affirmations in STEM. <https://stem4ec.ning.com/blog/positive-affirmations-in-stem?context=category-Insights>
 - b. Towson, J. (2020). Reading Beyond the Book: Incorporating Dialogic Reading Strategies into your Storybook Reading. <https://stem4ec.ning.com/blog/reading-beyond-the-book-incorporating-dialogic-reading-strategies?context=category-Storybook%20Conversation>
 - c. Pedonti, S. (2020). Adaptations for Engaging Children with Disabilities in STEMStorybooks. <https://stem4ec.ning.com/blog/adaptations-for-engaging-children-with-disabilities-in-stem-story?context=category-Storybook+Conversation>
2. STEMIE. Curated book lists
<https://stemie.fpg.unc.edu/storybook-conversations-curated-book-lists>
3. Storybook conversation guides
<https://rise.articulate.com/share/RNoLFRn02L0ftxfyW-5ooljAYqdhP3cY#/>

4. STEMIE (2020). General Adaptations for Storybook Conversations

<https://stemie.fpg.unc.edu/dialogic-reading-general-adaptations>

5. Videos and video demonstrations

a. From Zero to Hero <https://stemie.fpg.unc.edu/zero-hero-calculator-and-supports>

b. Dialogic reading (Hungry Caterpillar) video demo
<https://youtu.be/IX1eXZ2JM2U>

c. Storybook preparation and conversations (Rosie's Walk)
<https://stemie.fpg.unc.edu/stem-video-demonstration-storybook-preparation-rosies-walk>

References

How You Felt When You Recognized Yourself in a Book for the First Time

<https://www.weareteachers.com/diverse-books-meaning/>

Many Kids of Color Don't See Themselves in the Books They Read https://www.marketwatch.com/story/males-particularly-white-males-are-persistently-overrepresented-many-kids-of-color-dont-see-themselves-in-the-books-they-read-11628535154?link=MW_latest_news

Mirrors, Windows, and Sliding Glass Doors

<https://scenicregional.org/wp-content/uploads/2017/08/Mirrors-Windows-and-Sliding-Glass-Doors.pdf>

Picture This: Diversity in Children's Books 2018 Infographic

<https://readingspark.wordpress.com/2019/06/19/picture-this-diversity-in-childrens-books-2018-infographic/>

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STEM Storybook selection criteria
Diversity and Inclusion
There are no stereotype and misrepresentation prompted in the story
Diverse characters (e.g., characters with disabilities or characters of color; male/female) are positively represented in the book.
If diverse characters were portrayed in the book, they were identified as a positive and constructive role model or have leadership and action roles.
There are no offensive or harmful words to individuals with disabilities or diverse population
STEM content
Storybook provides an accurate STEM idea/concepts that can be expanded on through conversation; list all possible STEMconcepts
The story incorporates different STEM vocabularies; list STEM vocabularies used
The story can make connections with children's own experiences
The story can promote STEM learning and process
Is STEM content developmentally appropriate or align with standards
Dialogic Reading/storybook conversation/shared book reading
The book is appropriate and appealing for young children (content, length, vocabularies)
The book has potential for STEM conversations/discussions
Other strengths of story/book

This check list was adapted by Hsiu-Wen Yang from Connect Module 6.2; Adapted from Cavanaugh, C. L. (2010); Nasatir and Horn(2003); STEM literacy, 2017; Van den Heuvel- Panhuizen, M. & Elia, I. (2012)

