

Supporting Girls' Mathematics Learning Using High-Interest Texts

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Gender Differences in Math

Dispositions
Performance
Participation

Sociocultural Influences on Gender Issues in Math

Peers
Families
School Staff
Media
Society in General

Potential Value of Context for Math Learning

Interest (engagement, motivation)
Familiarity/relevance (use of background knowledge; appreciation of utilitarian value of math)
Meaning (less abstract entry into problems; more meaningful assessment of answers)
Greater transfer of learning

High-Interest Texts

Texts students want to read (willingness to engage with specific content)
One type: high-interest/low readability ("hi-lo" books)
Types of interest: individual; situational

High-Interest Texts for Girls: *Format*

Primary

Books (esp. novels, series, chapter books)
Magazines
Digital
 Websites (in general)
 Social media (networking sites)
 Communication (email, text messages, instant messages)

Secondary

Newspapers
Song lyrics

High-Interest Texts for Girls: *Genres*

Fiction (narrative, historical, realistic)

Adventure

Humor

Factual/informational

Mystery

High-Interest Texts for Girls: *Topics*

Primary

Animals

Human interest

Pop culture (entertainment, current events...)

Secondary

Friendship

Science

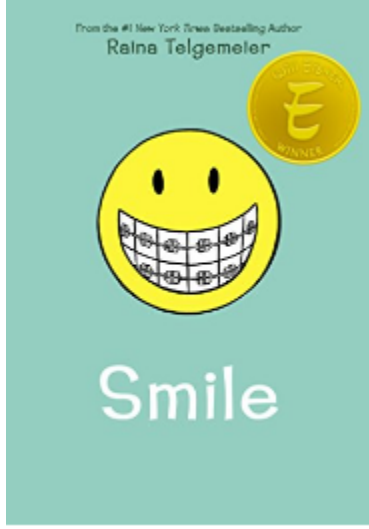
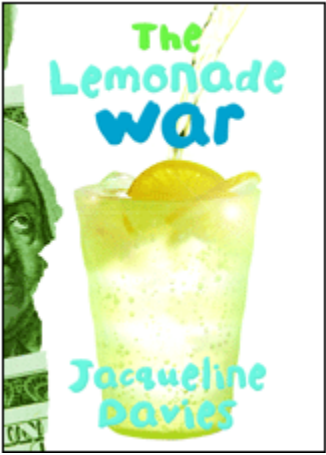
Specific holidays

Romance

Selected Resources

- 12 Inspiring STEM Books for Girls: <https://www.edutopia.org/article/12-inspiring-stem-books-girls-emelina-minero>
- 15 Books Starring Black Girls for Readers of All Ages: <https://www.barnesandnoble.com/blog/kids/15-books-starring-black-girls-for-readers-of-all-ages/>
- A Mighty Girl Book Club: <https://www.amightygirl.com/books/book-club?cat=422>
- Books for Strong Girls in Middle School: <http://www.flashlightworthybooks.com/Books-for-Strong-Girls-in-Middle-School/421>
- Brave Girls and Strong Women: http://genderequalbooks.com/Brave_Girls_book_list.html
- New Moon Girls Magazine (ages 8-14): <http://newmoon.com>
- Online Resources for Selecting High-Interest Texts: <https://www.literacyworldwide.org/blog/literacy-daily/2018/01/16/online-resources-for-selecting-high-interest-texts>
- The Top 20 Female Characters from Children's Books: <http://www.scholastic.com/parents/blogs/scholastic-parents-raise-reader/top-20-female-characters-childrens-books>

Tips for Selecting Texts for Mathematics

	Ask yourself some questions: ○ What math can emerge from this text? ○ Does the math fit with my math goal for the lesson? ○ What background knowledge do the students have? ○ How will their background knowledge relate to the text context? ○ What tools do I need to provide for the students to find the mathematical potential from the text? ○ For students to make sense of the text context and the mathematical concepts what must take place? Lamberg, T., & Andrews, C. (2011). Integrating literature and math. <i>Teaching Children Mathematics</i>, 17(6), 372-376.
	Open Rubric: ○ Is the text's mathematics content correct and accurate? ○ Is the text's mathematics content visible and effectively presented? ○ Is the text's mathematics content intellectually and developmentally appropriate for its audience? ○ Does the book facilitate the reader's involvement in, and use and transfer of, its mathematics? ○ Do the text's mathematics and story complement each other? ○ How great are the resources needed to help readers benefit from the text's mathematics? Hunsader, P. D. (2004). Mathematics trade books: Establishing their value and assessing their quality. <i>The Reading Teacher</i>, 57(7), 618-629.