

New York Times Bestselling,
Three-Time Newbery Honor–Winning Author

JENNIFER L. HOLM



BELIEVE IN THE ~~IMPOSSIBLE~~
POSSIBLE



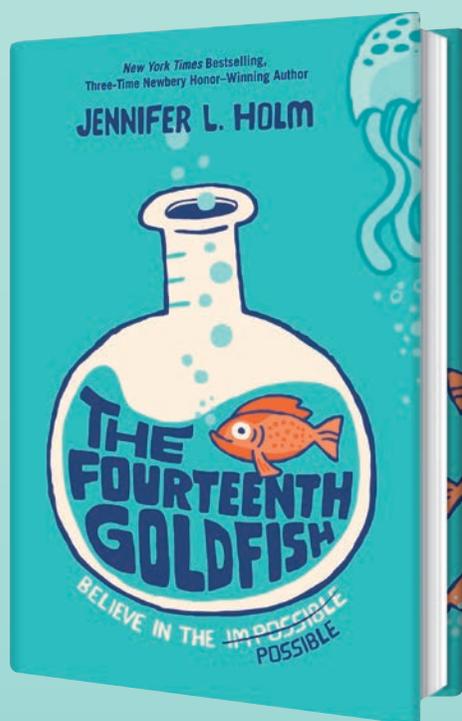
RANDOM HOUSE
CHILDREN'S BOOKS

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EDUCATORS' GUIDE

INCLUDES SCIENCE AND COMMON CORE CONNECTIONS



Galileo. Newton.
Salk. Oppenheimer.

Science can change
the world . . . but can
it go too far?

Grades 3–7

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EL: 978-0-307-97436-5 • CD: 978-0-804-19382-5

ABOUT THE BOOK

Eleven-year-old Ellie has never liked change. She misses fifth grade. She misses her old best friend. She even misses her dearly departed goldfish. Then one day a strange boy shows up. He's bossy. He's cranky. And weirdly, he looks a lot like Ellie's grandfather, a scientist who's always been slightly obsessed with immortality. Could this pimply boy really be Grandpa Melvin? Has he finally found the secret to eternal youth?

With a lighthearted touch and plenty of humor, Jennifer L. Holm celebrates the wonder of science and explores fascinating questions about life and death, family and friendship, immortality . . . and possibility.

PRAISE

★ “This is top-notch middle-grade fiction with a meaty dilemma, humor, and an ending that leaves room for the possibility of a sequel.” —*Publishers Weekly*, Starred

★ “A great choice for book groups and class discussions as well as individual reading.” —*Booklist*, Starred

“Awesomely strange and startlingly true-to-life. It makes you wonder what's possible.” —Rebecca Stead, Newbery Medal-winning author of *When You Reach Me*

PRE-READING ACTIVITY

Ask students to investigate the term “fountain of youth” and to take notes on what they discover. Then have a class discussion about the possibility of staying young forever and the implications that would have for individuals and society.

CURRICULUM CONNECTIONS

SCIENCE

While Melvin Sagarsky is a fictional character, many research scientists do believe that slowing down and even reversing the aging process is possible. Ask pairs of students to research studies that are being conducted by scientists on this subject. Each pair should select one study, read to understand that study, and then write a summary of the information. Have students create a visual display that incorporates the research as well as a written personal response to their research. Post the displays in the classroom.

- **Correlates to Common Core Standards:** Writing: Text Types and Purposes: W.4.2, W.5.2, W.6.2; Production and Distribution of Writing: W.4.4, W.5.4, W.6.4; Research to Build and Present Knowledge: W.4.7, W.5.7, W.6.7; Language: Conventions of Standard English: L.4.1, L.5.1, L.6.1 and L.4.2, L.5.2, L.6.2; Knowledge of Language: L.4.3, L.5.3, L.6.3.

SCIENCE/LANGUAGE ARTS

Melvin understands the contributions that famous scientists have made to advance human understanding of the world. Ask pairs of students to select one of the following scientists from history or a living scientist and research his or her life and contributions. Students should develop a media presentation that includes biographical information about the scientist, the reasons for his or her discoveries, the impact the discoveries have had on the human race, and the effect of the discoveries on the scientist’s life. The presentations can be incorporated into a science exhibition for parents, community members, and other students.

Marie Curie • Galileo Galilei •
Isaac Newton • Robert Oppenheimer •
Louis Pasteur • Jonas Salk

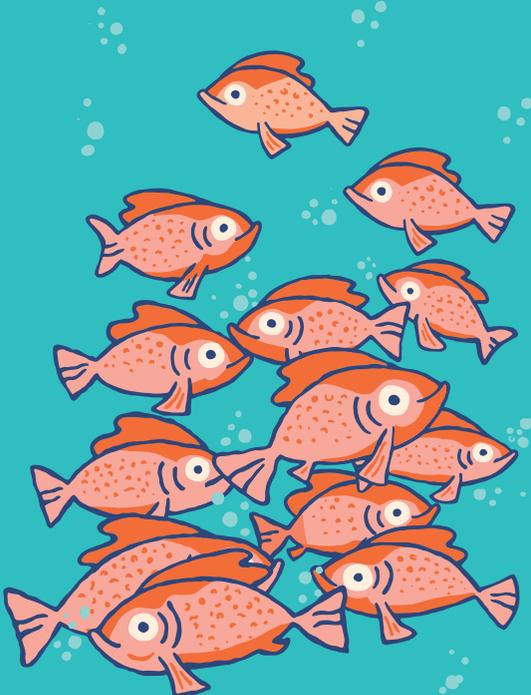
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ART

Ellie and Brianna paint their hand prints on Ellie's bedroom wall as a way of demonstrating their friendship and their growth. Ask students to develop an idea for a mural to be painted in the art classroom, the library, or the halls of the school. Students can draw their design on poster paper and then write an explanation that provides the meaning and inspiration behind their idea. Students should also include where they would like to have the mural painted. The designs can then be displayed in the library, and students and teachers can vote on the design that would best fit each area of the school.

- Correlates to Common Core Standards: Writing: Text Types and Purposes: W.4.1, W.5.1, W.6.1; Production and Distribution of Writing: W.4.4, W.5.4, W.6.4.



DRAMA

Ellie's parents both work in theater and have a passion for drama. Divide students into small groups and ask them to select a scene from the book and write a script and a short introduction to their scene. Each group member should have a role, whether playing a character, creating a backdrop, or presenting the introduction. After practicing, groups should perform their scene for the class. Scenes should be presented in the order they occur in the book. Have students present their skits to other classrooms.

- Correlates to Common Core Standards: Writing: Text Types and Purposes: W.4.3, W.5.3, W.6.3; Speaking & Listening: Comprehension and Collaboration: SL.4.2, SL.5.2, SL.6.2.

VOCABULARY/USE OF LANGUAGE

Have students locate the following words and determine their meaning from context clues: *battered* (p. 12), *exasperated* (p. 17), *mechanism* (p. 24), *critical* (p. 87), *preens* (p. 92), *hurtling* (p. 106), *abolish* (p. 121), and *rummage* (p. 125). Then have students work with a partner to select one of the words and generate a list of synonyms for that word. Using the list of synonyms, students should create an illustrated visual that displays the differences and relationships among the synonyms. Post the vocabulary visuals in the classroom.

- Correlates to Common Core Standards: Language: Vocabulary Acquisition and Use: L.4.4, L.5.4, L.6.4.

THEMATIC CONNECTIONS

QUESTIONS FOR GROUP DISCUSSION

FAMILY RELATIONSHIPS

What is Ellie's relationship with her father like? How does he contribute to her life? Even though they are divorced, Ellie's parents maintain an amicable relationship with each other. How does this help Ellie? In what ways does Ellie's mother affect her decision to pursue science as a career?

INTERGENERATIONAL RELATIONSHIPS

On p. 6, Ellie wonders if she was born into the wrong family. How does her grandfather put her mind at ease? In what ways do Ellie's relationships with her grandfather and mother change when he moves in? How does Ellie's mother's relationship with Melvin affect Ellie's relationship with him? What insight does Ellie gain from the relationship between her mother and grandfather? What does Ellie learn from her grandfather that no one else could have taught her? How does her grandfather change as a result of his relationship with Ellie? How does the title of the book relate to Melvin?

FRIENDSHIP

Why does Ellie and Brianna's friendship change? How would Ellie's "law of friendship" (p. 106) affect their relationship? What does Ellie learn as a result of Brianna's new interests? How is Ellie affected by Brianna's lack of commitment to their friendship? In what way does Raj fill the void in Ellie's life that Brianna left? What role does Momo play in Ellie's life?

OVERCOMING CHALLENGES

Melvin is determined to retrieve his specimen of *T. melvinus*. What obstacles must he overcome to achieve his goal? How does Melvin adapt to his new age and living environment? How do Melvin's struggles help Ellie's relationship with her mother? What challenges does Ellie's mother have living with her teenage father?

STEREOTYPES

Why does Melvin assume Raj knows how to break into buildings? What preconceived beliefs does Melvin have toward the arts, such as drama? What assumptions does Ellie's mother make about science?

 The above discussion questions correlate to Common Core Standards: Reading: Literature: Key Ideas and Details: RL.4.1, RL.5.1, RL.6.1 and RL.4.3, RL.5.3, RL.6.3; Speaking & Listening: Comprehension and Collaboration: SL.4.1, SL.5.1, SL. 6.1; Language: Conventions of Standard English: L.4.1, L.5.1, L.6.1.

INTERNET RESOURCES

FAMOUS SCIENTISTS

ScienceKids.co.nz/sciencefacts/scientists.html

THE SCIENCE OF AGING

senescence.info

IMMORTALITY OF A JELLYFISH

NYTimes.com/2012/12/02/magazine/can-a-jellyfish-unlock-the-secret-of-immortality.html?pagewanted=all&_r=0

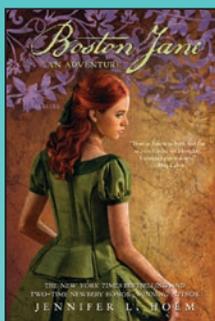
ABOUT THE AUTHOR

JENNIFER L. HOLM'S father was a pediatrician, and she grew up listening to him talk about the wonder of antibiotics and how science could change the world. Today Jennifer is the *New York Times* bestselling author of three Newbery Honor Books, as well as the cocreator of the Babymouse series (an Eisner Award winner) and the Squish series, which she collaborates on with her brother Matthew Holm.



Todd Rafalovich

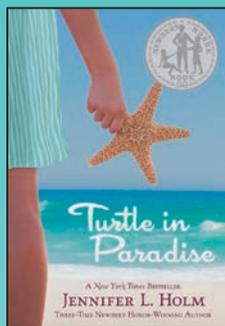
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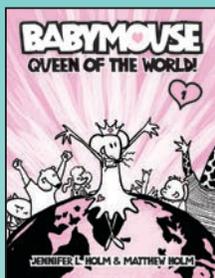


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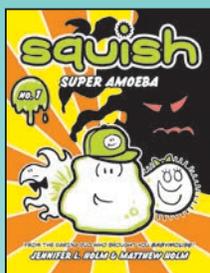


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