STACY McANULTY

THE MISCALCULATIONS OF LIGHTNING GIRL

*If you can survive a bolt of lightning,
you can survive middle school . . . right?*
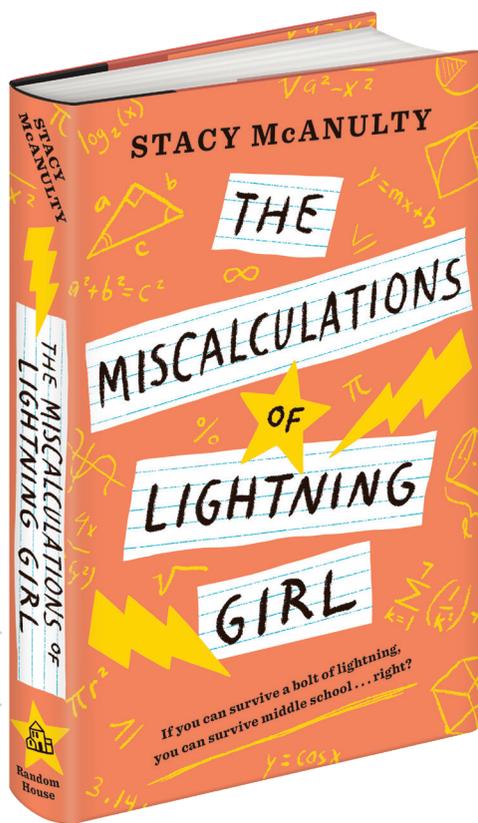
## ABOUT THE BOOK

Lucille Fanny Callahan (Lucy) is a math genius as a result of being struck by lightning when she was 8. Since that time, she has been homeschooled and spends every spare moment on the MathWhiz website. Now Lucy is 12 years old and technically ready for college, but her grandmother thinks she needs to work on her "soft skills." Nana insists that Lucy enroll in 7th grade at East Hamlin Middle School and challenges her to make 1 friend and read 1 book (that's not a math textbook). Lucy seems weird to most of her classmates, and she makes some miscalculations about people along the way. When she teams up with Windy and Levi on a project at the Pet Hut to get more animals adopted, Lucy's math skills help them systemically score winning results. A bonus: Lucy makes 2 friends, exceeding Nana's initial challenge.

OTHER TITLES BY STACY McANULTY
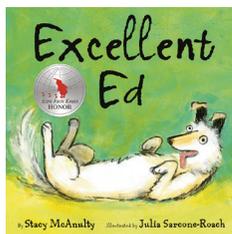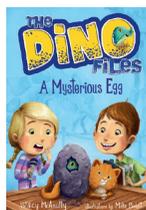
Questions for Group Discussion

🔖 Explain what Lucy means when she calls herself a "reclusive genius." (p. 6) Why is interacting with people so difficult for her? She does communicate with people online at the MathWhiz website. Discuss why this type of interaction doesn't help Lucy's social skills.

🔖 How do Lucy's grandmother and Uncle Paul view Lucy's math abilities? Uncle Paul gives Lucy a lightning-bolt necklace. Why does he call it her "good-luck symbol"? (p. 10) How does Lucy react to the gift?

🔖 Nana homeschooled Lucy, and by age 12, Lucy has passed the GED test. Why does Nana insist that Lucy go to public school? Explain what Nana means when she says Lucy needs to work on some of her "soft skills." (p. 18) Why does Nana think middle school is a good place for Lucy to develop such skills? Discuss how Pi, the sick dog at the Pet Hut, helps Lucy with her "soft skills."

🔖 Contrast Lucy's feelings about school at the beginning and at the end of the novel. Uncle Paul says, "Middle school is supposed to be the worst. It's like a giant hazing for adulthood." (p. 46) How does Lucy better understand this statement by the end of the novel?

🔖 Nana doesn't tell the principal that Lucy is a math genius, because she thinks Lucy may want to be treated like the other kids. Debate whether Lucy's life at East Hamlin Middle School might be easier if she were to explain to her classmates and teachers that she has acquired savant syndrome.

🔖 Explain the following simile: "The digits of pi will take over like an infection." (p. 21) Discuss Lucy's routine to keep this from happening. Lucy has obsessive-compulsive disorder (OCD), which manifests as concern about cleanliness. How do her classmates react to her compulsive behaviors? Discuss why nicknames like "the cleaning lady" are hurtful.

🔖 Nana challenges Lucy to make 1 friend. Discuss the friendships that develop between Lucy and Windy and Lucy and Levi. What is Levi's view of Windy? How are the 3 outcasts? Explain what Lucy means by "Levi and I live in the same world, but we see things very differently." (p. 113) Debate whether Windy and Levi have already developed "soft skills."

🔖 What is Nana's reaction when Lucy is invited to sleep over at Windy's house? Discuss the events that unfold at Windy's birthday party. Who is the troublemaker? Why does Windy tell Lucy's secret?

🔖 Mr. Stoker is Lucy's favorite teacher. At what point does he suspect that Lucy has unusual math abilities? Lucy gets a zero on a test because she doesn't show her calculations. Discuss why it's important to show your work in math. What does Mr. Stoker mean when he tells the class that they should "grow the answer organically"? (p. 61) How might this advice apply to solving any problem, including surviving middle school?

🔖 Mr. Stoker gives Lucy a math problem that he doesn't give to the other students. She tells him that's not fair. Discuss what he means when he says, "It's certainly fair. It's not equal." (p. 209) What is Lucy's reaction when she discovers that Mr. Stoker is on the MathWhiz site?

The 7th graders at Hamlin Middle School must plan and execute a group project called Cougars Care Project: Making a Difference in Our Community. Lucy, Levi, and Windy are a team. Lucy says that Windy likes to "think big." Explain what Lucy means by "I'm her gravity." (p. 98) What does each team member contribute to the project? Why do Lucy and Levi allow Windy to lead the project? Discuss how they work as a team.

Throughout the novel, Lucy makes reference to trust. She tells Levi that she was struck by lightning. How does she know she can trust Levi? Lucy thought she could trust Ms. Fleming, her language arts teacher. Explain how Ms. Fleming breaks that trust.

Discuss Maddie's outburst when she says that Lucy should not be in the math class. How does Lucy's reaction surprise everyone, including herself?

At what point in the novel does Lucy begin to feel that she belongs at East Hamlin Middle School? What and who contribute to that sense of belonging? How does this sense of belonging influence Lucy not to open the letter from the North Carolina Academy of Science, Math, and Engineering?

Explain the title of the book. Cite scenes in the novel where Lucy makes miscalculations.

Activities

When Lucy sleeps over at Windy's house, the two girls talk about their favorite quotes. (p. 95) Windy's is a quote from Dumbledore in the movie *Harry Potter and the Chamber of Secrets*: "It is not our abilities that show what we truly are. It is our choices." Lucy lies and says hers is Dory's famous line from *Finding Nemo*: "Just keep swimming." Write a paper that explains how both quotes apply to Lucy at the end of the novel.

Lucy says, "Life is like an equation and mine is perfectly balanced. Nana + Uncle Paul + Math = Happiness." (p. 15) Write equations that express Lucy's relationship with the following: Levi, Windy, Maddie, Mr. Stoker, the Pet Hut, and Pi. Include math in each equation.

Lucy, Nana, and Uncle Paul visit the North Carolina Academy of Science, Math, and Engineering. Ms. McCleary tells them, "You can't expect a rose to bloom in the desert. But put the rose in a greenhouse with sunlight and water, it will blossom." (p. 171) Write a paper that explains how East Hamlin is Lucy's greenhouse. What are the sunshine and water that cause her to blossom?

3.1415926

★ "Unique and utterly satisfying."
—*Kirkus Reviews*, Starred Review

⚡ Find out about careers in mathematics (learnhowtobecome.org/careers-in-mathematics). Predict a career path for Lucy. Research the best universities for the study of mathematics (thebestschools.org/features/best-mathematics-programs-in-world-today), and write an essay that Lucy might submit when applying to college. Make sure to highlight her work with the Pet Hut, her active involvement on the MathWhiz website, and the ways in which these activities qualify her for the mathematics career you've chosen.

⚡ Read about Mary Jackson, Katherine Johnson, and Dorothy Vaughan at the following website: space.com/35430-real-hidden-figures.html
Then write a paper that discusses what these women contributed to our world.

⚡ Review the definitions of *mean*, *median*, and *mode*. How does Lucy use these types of averages to determine which dogs to feature on the Pet Hut website? Find the mean, median, and mode of the following group of numbers: 14, 12, 3, 6, 10, 5, 7, 11, 2.

⚡ Divide into groups and develop a statistical question pertinent to your school. Survey fifty students across three grades, and report the quantitative results using mean, median, and mode. Then construct a bar graph that compares the survey results by grade.

Vocabulary/Use of Language

Jot down any unfamiliar words and try to define them, taking clues from context. Then check the meaning of the words in a dictionary. Such words may include:

defibrillator (p. 2), *fluorescent* (p. 4), *fractal* (p. 15), *immunization* (p. 23), *rabid* (p. 27), *paparazzi* (p. 42), *condoning* (p. 62), *superabsorbent* (p. 68), *antidote* (p. 71), *epic* (p. 73), *discriminating* (p. 106), *imprecise* (p. 108), *penthouses* (p. 120), *unverified* (p. 125), *euthanize* (p. 128), *telepathic* (p. 134), *mesmerized* (p. 165), *decapitating* (p. 165), *oppressed* (p. 181), *inquisitive* (p. 193), *terminal* (p. 196), and *competence* (p. 207).

Correlates to Common Core State Standards in Language: Vocabulary Acquisition and Use L. 4-7.4.

★ "Lucy's journey is beautifully authentic in this debut brimming with warmth, wisdom, and math."
—*Publishers Weekly*, Starred Review

Stacy McAnulty is the author of many books for young readers, including the Dino Files and GoldieBlox chapter book series and the picture books *Excellent Ed, 101 Reasons Why I'm NOT Taking a Bath*, and *Beautiful. The Miscalculations of Lightning Girl* is her middle-grade debut. A former mechanical engineer, Stacy writes about math and science with authority. Visit her online at stacymcanulty.com or follow her on social media:

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📘 **StacyMcAnultyAuthor**

Internet Resources

mensaforkids.org/teach/lesson-plans/category/subjects/math/
This website offers lesson plans that extend beyond the curriculum.

aauw.org/resources/policy/position-stem-ed/
The American Association of University Women advocates for gender equity in STEM. Get the facts!
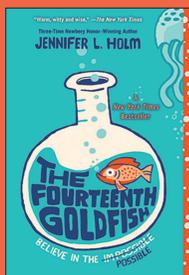
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all the students are gifted, but four are exceptional. Though the Evers look twelve, they're actually centuries old, possessing knowledge and talents that make them extraordinary. And boarding school is the perfect cover for their brilliance—and their secret.

It's supposed to be a typical year in the anything-but-typical lives of these "kids" . . . until Ivy Stewart shows up. She resembles an Ever who went missing more than seventy years ago. And Ivy could be the key to unlocking their curse.

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Author of *THE MISCALCULATIONS OF LIGHTNING GIRL*
STACY McANULTY

THE EVERS
FOREVER TWELVE

What if you could live forever?