

The Boy Who Loved Math: The Improbable Life of Paul Erdos

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GENRE: Biography
LEXILE: 550

SUMMARY: Paul Erdos loved math and numbers. He saw them everywhere he went and in nearly everything he did. He struggled to fit in (especially in grade school), and to take care of himself because his mother and caretaker always did things for him. As he grew older, he found his place in life and worked with other mathematicians to do amazing things. His legacy lives on today.

BOOKTALK: Have you ever been so interested in something that you can't get it out of your mind? Paul Erdos loved math in that way. He saw numbers and math everywhere. He loved it so much that his mom and caretaker did EVERYTHING else for him! Read this book to see how exciting math was for Paul Erdos, what struggles he had, and how unique his life was because of his love of numbers.

AUTHOR'S BIOGRAPHICAL SKETCH:

Author's Name: Deborah Heiligman
Author's Website: <http://deborahheiligman.com/>
Other books written by the author:

Snow Dog, Go Dog
Fun Dog, Sun Dog
Cool Dog, School Dog
Honeybees
From Caterpillar to Butterfly
National Geographic's Holidays Around the World series (10 titles)
Charles and Emma: The Darwins' Leap of Faith
High Hopes: John F. Kennedy

CHALLENGING WORDS

infinity (n)- a never ending number or amount (p. 3)
Budapest (n)- the capital of Hungary (p. 3)
mathematician (n)- an expert in math (p. 7)
epsilons (n)- a very small amount (p. 22)
impatient (adj)- restless and eager (p. 24)
generous (adj)- freely giving or sharing (p. 28)

DISCUSSION QUESTIONS

1. Were Paul's mother and Fraulein helpful or harmful when they did everything for him? Why?
2. How is Paul like you?
3. Do you think Paul was born knowing a lot about numbers (like he was naturally good at math), or do you think his mom or someone else taught him what he knows?
4. Why was high school so much better for Paul than grade school?
5. If you could travel around the world or the United States like you have no home, where would you go?
6. What is something that you get so excited about that you would wake up early to do it?
7. What impact did Paul have on our world?

ACTIVITIES with COMMON CORE STANDARDS

Language Arts

- Research the life of another great mathematician. Compare and contrast his/her life with that of Paul Erdos.
 - 4.W.5** Conduct short research on a topic.
 - 5.W.5** Conduct short research assignments and tasks on a topic.
 - 6.W.5** Conduct short research assignments and tasks to build knowledge about the research process and the topic under study.
- Read another biography about Paul Erdos. Then report what you've learned from both biographies in a creative way.
 - 4.RN.4.2** Combine information from two texts on the same topic in order to demonstrate knowledge about the subject
 - 5.RN.4.2** Combine information from several texts or digital sources on the same topic in order to demonstrate knowledge about the subject.

Mathematics

- Research different kinds of prime numbers. (You can include some of those in this book, too.) Make a creative presentation to share with others.
 - 4.NS.8:** Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number.
 - 6.NS.6:** Identify and explain prime and composite numbers.

- Explore and explain amicable numbers, giving examples (pp. 2-3, 35).

PS.1: Make sense of problems and persevere in solving them.

PS.2: Reason abstractly and quantitatively.

PS.6: Attend to precision.

LIFE SKILLS:

Thinking

Responsibility

Independence

Generosity

focused attention

RELATED INTERNET SITES:

<http://www.prime-numbers.net/index.html> "Where Prime Numbers mysteries are solved"

https://www.youtube.com/watch?v=V08g_lkKj6Q YouTube video describing the Sieve of Eratosthenes

ACTIVITY SHEET CREATED BY:

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