

My Mathematics Classroom Library

1. *Mathematics: From the Birth of Numbers* by: Jan Gullberg
 - a. I think this book is important to have in my classroom library because it offers some history about mathematics itself. This book will allow students to see where math started to where math is now. This book also offers answers to the common how and why questions students ask. The history of mathematics is an important topic that students should have access to because it gives the student an appreciation of how far math has come.

2. *Fermat's Enigma: The Epic Quest to Solve the World's Greatest Mathematical Problem* by: Simon Singh
 - a. This is a great book that highlights a problem that went unsolved for over 300 years. Fermat's Enigma was finally solved in 1995. This book gives an interesting look into a major mathematical problem and will show the students that mathematics is still evolving. This book shows that it took all areas of mathematics to come together to solve a problem. This will show my students the applicability and cohesion of mathematics.

3. *e: The Story of a Number* by: Eli Maor
 - a. This book will be an imperative resource in my classroom, as it will provide an explanation to any student who has a deep interest in the creation of the letter e. I can give the questioning student the information I know, but this book will provide a deeper investigation into the creation of this unique letter. Additionally, I think it is important for the student to do his/her own research and not have me, the educator, constantly just giving my students information.

4. *An Imaginary Tale: The Story of $\sqrt{-1}$* by: Paul J. Nahin
 - a. This book is similar to the book on e . It gives many authentic applications of the use of the imaginary number i and where it came from. It also highlights the many mathematicians who tried coming up with this number and what led to its creation. Again, this will allow my students to get an in-depth look at an interesting portion of mathematics.

5. *The Colossal Book of Mathematics: Classic Puzzles, Paradoxes, and Problems* by:
Martin Gardner
 - a. This book is intriguing because it will offer many common and historic mathematical problems that I can challenge my students to try and solve, or we can have group projects that will entail trying to solve a problem that was historically relevant. I hope this will be a change of pace for my students, and they will enjoy working through a problem many mathematicians have attempted before.

6. *In Pursuit of the Unknown: 17 Equations That Changed the World* by: Ian Stewart
 - a. This book is a great reference to equations that have changed mathematics and the world. This is important for students to see how equations we take for granted today made a crucial impact to the world when they first were discovered. I always think it is important to show the significance of calculations and the significance of mathematics to students, as it will give them a reason for studying and learning these different equations.

7. *How Long Is a Piece of String? More Hidden Mathematics of Everyday Life* by: Rob Eastaway

- a. This book gives many illustrations of practical applications of math, as well as, illustrating how important numbers themselves are. This book gives a different and unique look at math in everyday life and would give the students multiple ideas of where math is present in their lives.
8. *Pi: A Biography of the World's Most Mysterious Number* by: Alfred S. Posamentier
 - a. This book is similar to the books on e and i where it gives an in depth look at the development and discovery of this number called π . The book highlights the importance and the significance of this number in mathematics. As I stated before, it is crucial for students to investigate and find information on things they are interested in, so they can justify what is being said in class.
 9. *Euler: The Master of Us All* by: William Dunham
 - a. This is a great biography on one of the most influential mathematicians of all time. Many of modern mathematics are based off of the developments Euler made in his career. I think it is important for students to know the most important mathematicians of all time because it gives them background information on the formulas they are using. I think it is interesting to learn about how and who came up with the different formulas used in math today.
 10. *The Language of Mathematics: Making the Invisible Visible* by: Keith Devlin
 - a. This piece offers a simplified way to approach upper level mathematics, specifically calculus. The book displays a less complex way of thinking about the concepts of mathematics. I think this would be a great resource for upper level high school mathematicians, as it will give them some context as to what they are calculating and learning.