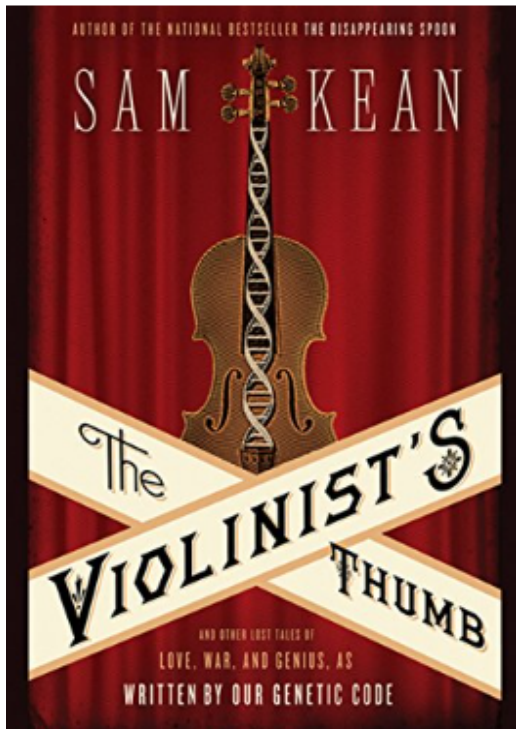


The Violinist's Thumb:

And Other Lost Tales of Love, War, and Genius, as Written by Our Genetic Code (2012)

by Sam Kean



Welcome to Summer, Gifted Bio! One reason this book was chosen for Summer Reading was for its **emphasis on the wonder and mysteries of DNA, as a building block for genes.** Our course for Gifted Biology will be inundated with models, figures, and diagrams to learn structures and how and why they work together for life's processes, including genetics. This book is a great way to get you ready to come into our learning environment with prior knowledge, intrigue, and readiness with thoughts for our unique topics.

*We do this Assignment to assess your **Level of Rigor** for the Class of 2028.* What is your level of motivation, creativity, critical thinking, and interest for Biology? Gifted Biology is taught at a level to prepare you for future Gifted courses at BHS as well as AP classes and College. Are we going to do the bare basics or are we going to go **beyond and extend** our learning for YOUR class? We hope for you to ENJOY this endeavor and to come into your Freshman Semester curious and asking questions!

INSTRUCTIONS:

Part I: Read and Write for Chapters 1-3, 5-7, 12, 13, 15 [70 points]

For each of these Nine Chapters ~

- 3 Interesting Facts learned
- 2 Haikus about the most important concepts
- 1 Paragraph Summary (5-6 sentences)

Handwrite your OWN answers. IF YOU TURN IN A TYPED VERSION, YOU WILL RECEIVE NO CREDIT FOR YOUR WORK! Your answers are: **due the first Friday of School (tentatively 8/9/24)** and each answer needs to be in complete sentences (or read instructions for specific question style). Write in your OWN words. Be your OWN thinker ~not Google. This will introduce you to mostly our FALL Semester AKS concepts for Gifted Biology! You will then have a QUIZ about the 2nd week of school from these Chapters in the Book.

Order an inexpensive book copy and/or use this possible Free PDF download:

<https://zlibrary.to/filedownload/the-violinists-thumb-and-other-lost-tales-of-love-war-and-genius-as-written-by-our-genetic-code>

Haiku: capture a moment in time with both richness and simplicity. Haiku are 3 lines of usually unrhymed words totaling 17 syllables. The syllable pattern is: 5 on the first line, 7 on the second line, 5 on the last line.

Part II: Video Presentation [30 points]

In order to provide a unique overview of the book, you can work alone or together with your chosen group of *up to 3* gifted biology students to create a video! Each group will select **one Chapter** of their choice; the video provides a summary of the major points from the Chapter. Your video should be about 2-3 minutes long and needs to ensure that all members of the group participate in the final product.

Your video **MUST** include the terms listed for your Chapter:

- Chapter 1* - DNA, genes, G. Mendel, chromosomes, generations
- Chapter 2* - "fly boys", fruit fly eyes, linked traits, T.H. Morgan
- Chapter 3* - types of mutations, translation, Central Dogma, mutagens
- Chapter 5* - Sister Miriam, hydrogen, endosymbiosis, mitochondrial genome, transposons
- Chapter 6* - Hox genes, Sonic hedgehog gene, vitamin A, acetyl group, methyl group
- Chapter 7* - contagious cancer, RNA, *alu*, Toxo, retroviruses
- Chapter 12* - chromosomes, karyotypes, *foxp2* gene, N. Paganini, EDS
- Chapter 13* - genetics, Tut, malaria, porphyria, Addison's disease, Marfan's syndrome,
- Chapter 15* - epigenetics, Lamarck, Darwin, mice, Overkalix

Be creative with your approach. Maybe it's a newscast (real or fake), an infomercial, a parody of a Youtuber or celebrity, a collection of randomness inspired by Instagram videos, a children's story acted out, an artistic cartoon, a music video where you cover another song (be musical)...*the possibilities are endless!* Whatever it is, put some of your group's personality into it to make it entertaining and informative. Use Visual/Audio/Edit. Often making an Unlisted YOU TUBE link is the best delivery. Upload the File to Google Classroom and include all members NAMES. The file will be added and **due by the first Friday of School (tentatively 8/9/24)**, but you can record it over the Summer to have it ready to go. See Rubric.

Rubric CATEGORY	Excellent 30 pts	Good 26-29 pts	Average 25-21 pts	Poor 0-20 pts
Content	Shows a full understanding of the major points of the chapter and explains your chapter to the point where everyone understands the key concepts.	Shows a good understanding of the topics in the chapter and provides a good overview of the key concepts.	Shows a good understanding of parts of the topic, but lacks a big picture understanding of certain concepts.	Does not seem to understand the topic very well, and may need to take a field trip to visit seventh grade life science class for an extended refresher course.
Creativity	A well thought-out masterpiece that demonstrates the ability to go above and beyond in the presentation. Is something that I, and others, will actually remember in a couple of weeks.	A well planned presentation that is solid but not spectacular. It does the job, but will likely be forgotten soon.	A presentation that has little additional creative organization and is strictly displaying information.	Lack of Creativity???

