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AUTHOR'S NOTE

Gödel, Escher, Bach: An Eternal Golden Braid

1979, Douglas Hofstadter explores themes present in Gödel's works, Escher's prints, and Bach's music such as Strange Loops and ideas leading to Gödel's incompleteness theorems. This is an 800 page book that is regarded as a cult classic in the world of people who enjoy math literature. This is credible because it is written by Douglas Hofstadter, a respected and distinguished cognitive scientist. Some problems with this source pertain to the computer science terminology being out of date, and the possibility of parts of this book to be unread due to a time constraint. This source will be used in my project as source material on formal systems that will be adapted into the game.

A Mathematician's Lament

2002, Paul Lockhart laments at how children are being failed in their classrooms by teachers who are draining their students of their interest in mathematics. My source is an article written by Paul Lockhart who is a research mathematician and grade school teacher. It is important because many mathematicians hold it in high regard as a telling example of how their beloved mathematics is being taught poorly in school. Because Lockhart uses his own experience as his

point of entry into the subject of the ways in which mathematics should or shouldn't be taught, any conclusions he draws are not generalizable because they come from an anecdote from a small sample size of one man; however, the sample size grows exponentially when the opinions of agreeing mathematicians are taken into account. I plan to use this source to help guide the ways in which I teach math to kids in my project.

Mathematical Puzzles: A Connoisseurs Collection

2004, Peter Winkler shares interesting mathematical puzzles that require creativity to solve, along with their solutions. My source is a book full of math puzzles compiled by a mathematician and puzzle enthusiast. This book is important because it is one of the few pieces of math literature aimed at kids that many kids (when asked) find fun. This is an untraditional source because a significant amount of bookspace is reserved for white space and pictures. I will use this source as a book of puzzles from which I can adapt into an interactive game.

The Math βook

2009, Clifford A. Pickover gives an overview of 250 of the most important milestones in math history. This book has been described as "If you had a calendar with a trivia fact on each page (1 for every day), except it's not a calendar, and there's 250 instead of 365. Also, there's more detail per page." by a trusted colleague (UCSB alum (Math BA)). Every milestone has 1-3 sources cited with the exception of Pi and Archemedian Semi-regular polyhedra and a few others like the golden ratio, projective geometry, discovery of calculus, the mobius function, and Bayes' theorem. This could be an issue if I plan to adapt some of these, such as Archemedian Semi-regular polyhedra. Although, this may not be such a major issue because some of these math principles do not require citations to verify. I will use this source as a resource with 250 different math topics I could explore and develop within my game through story elements or minigames.

Journey through Genius

1990, William Dunham provides step by step proofs for some of the greatest mathematical theorems as well as historical, biographical, and mathematical info about the mathematicians. This source is a history book with a mathematical focus. It is important because it contains several of the great mathematical theorems throughout history. William Dunham is a mathematician at Hanover college. I plan to use this as a bookshelf from which I can pull math educational material to adapt into my project.