

THE ROSENBACH

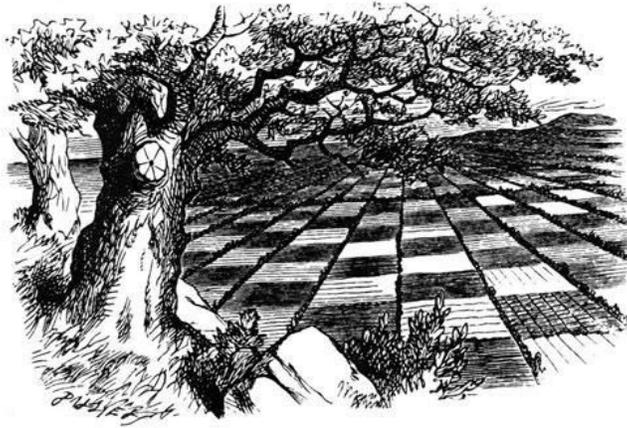
Math in Wonderland, Lesson One

Level: Grades 2-5



Photograph of the Liddell sisters.
Charles L. Dodgson, [1860]. 2006.0655

Lewis Carroll wrote the books *Alice's Adventures in Wonderland* and *Through the Looking Glass* about 150 years ago. He came up with the stories to entertain Lorina, Alice & Edith Liddell. Lewis Carroll worked with Lorina, Alice & Edith's father at the University of Oxford in England. He first told the story to the girls when they were all on a boat trip together. Eventually the stories got written down and many, many copies have been printed since then for kids all over the world.



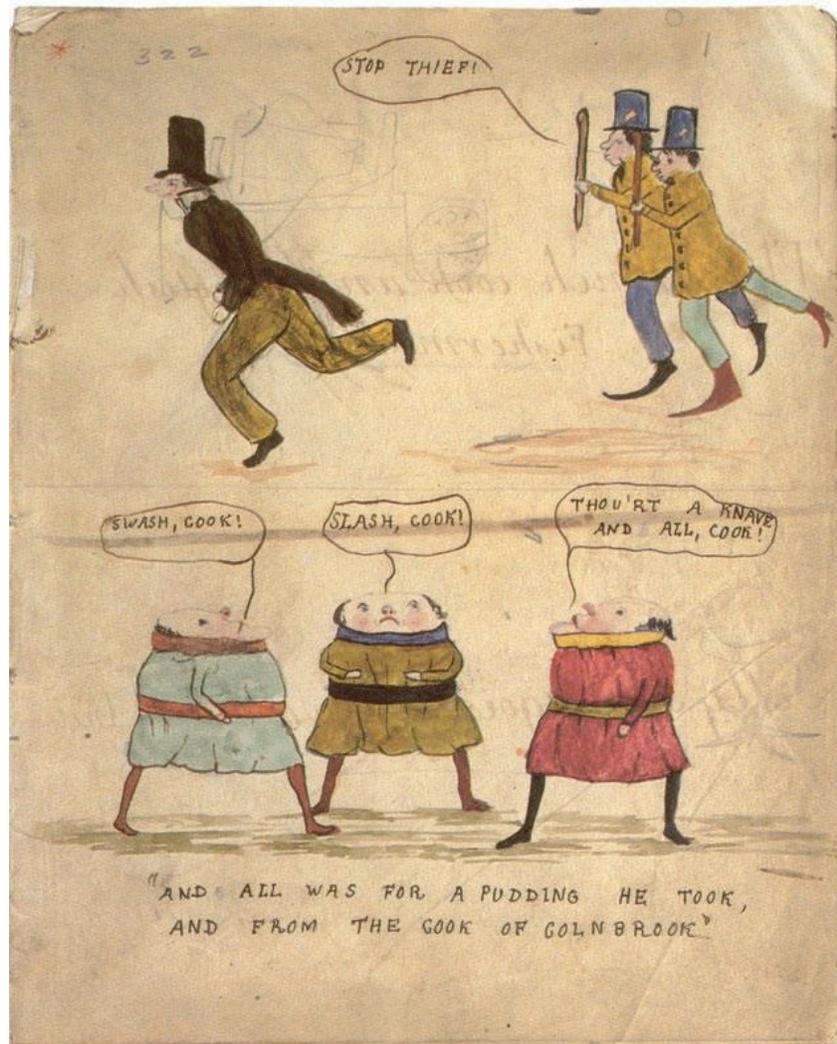
John Tenniel, "Chess Board." Produced for *Through the Looking Glass*. [1870]



John Tenniel, "Through the Looking Glass." Preliminary drawing for *Alice's Adventures in Wonderland*. [1864 or 65]. 1954.0028

In *Alice's Adventures in Wonderland*, a seven year-old girl named Alice follows a rabbit down his rabbit hole and arrives at a strange place called Wonderland where she meets all sorts of wacky characters. In the second book, *Through the Looking Glass*, Alice, who is now eight years old, steps through a mirror in her house and finds herself on a giant chess board.

The Rosenbach owns some very old copies of *Alice's Adventures in Wonderland* and some of the drawings that were created by John Tenniel to go in the book. We also have a little comic book that Lewis Carroll made when he was a teenager!



Charles L. Dodgson, page from "Picture Book," pen and ink drawing and watercolor. [1844]. EL3 D645 MS2

Besides being a writer and artist, Lewis Carroll was also a mathematician and a scientist. He taught math classes to college students at Oxford University and was always trying to come up with fun math games to help his students and other kids learn. He also loved taking pictures with his camera. Because Lewis Carroll was taking pictures 150 years ago, his camera was very complicated and he had to know a lot of science to make it work right.



John Tenniel, "A little door." Preliminary drawing for *Alice's Adventures in Wonderland* [1864 or 65]. 1954.213

Add It Up: Alice Just Doesn't Fit In!

At the beginning of *Alice's Adventures in Wonderland*, Alice follows a rabbit through a tunnel and arrives in a strange room with lots of doors and all of them are locked. She sees a 27-inch table with a tiny golden key which fits into a lock on a door that is only 15 inches high. Even though Alice is able to unlock the door, she can't fit through because she is 54 inches high! So, she kneels down to look through the door and sees a beautiful garden. She is so frustrated that she can't get in there! She stands back up, annoyed, and notices a little bottle with a label that says "drink me." Alice can't resist. She takes a sip and immediately feels very strange. She realizes that she has shrunk by 44 inches!

Can Alice fit through the door that is 15 inches high?

When she realizes that she's small enough to fit through the door, she hurries back to the 27-inch table where she's left the key. **Can she reach the key?**

When she discovers she is not tall enough to reach the key, she sits down on the floor and cries. But then she sees a small cake sitting under the table. She gobbles it up hoping that maybe it will make her big enough to reach the key. And it does! She grows by 98 inches! She rushes to the table to grab the key. **Can she fit into the door?**