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Jungle Boy explains the science of quicksand to Jungle Girl and learns for himself the importance of being careful and watching where one is going.

Ages: 4 to 8 years

ATOS Level: n/a

Lexile: AD540L

ISBN: 9780823445011



The Quicksand Book

How does ordinary sand become quicksand?

What is STEAM? Learning through Science, Technology, Engineering, the Arts, and Mathematics. Through STEAM, children problem solve, innovate, create, and collaborate.

STEAM Topics in this Book: nature, density, non-Newtonian fluids, Earth science, physical science

Activities To Do Together: This book is a humorous exploration of quicksand, an uncommon phenomenon that is often misunderstood. The book explains how quicksand forms, where it's likely to be found, and how it can be identified, avoided, and escaped.

Before you read the book with your child:

- Ask your child to tell you what they know about sand.
 What does it feel like? Where have they encountered it?
- Collect soil and sand samples from different locations.
 Notice how they are similar and different. Look at them with a magnifying glass. What do you see?

While reading the book with your child:

- Count the animals that appear throughout the story.
- Compare Jungle Girl's and Jungle Boy's reactions when they fall into the quicksand. Ask your child if they think Jungle Boy remembered his own advice. Why or why not?

When you have finished reading the story:

- Encourage your child to make quicksand by following the directions at the end of the story.
- Explore together how adding salt to plain water changes its density. Place grapes, plastic action figures, seashells, and/or eggs in a plain glass of water and a glass of water in which two tablespoons of table salt have been dissolved. What do you notice?
- With your child, classify each of the animals that appears in the story. Find out whether the animal is a bird, mammal, amphibian, or reptile.

Questions for STEAM Thinking:

- 1. If you found Jungle Girl stuck in quicksand, what would you do?
- 2. What happens when water pushes upward and forces the grains of plain sand to move far apart?
- 3. What do you think is important to know about quicksand?
- 4. Ask your child whether they think Jungle Boy is good to have around when someone needs to get out of quicksand. Why or why not?

Early Math Project Resources:

Visit <u>The Quicksand Book Activities</u> (www.earlymathca.org/the-quicksand-book)



Early Math Project

Vocabulary

steam words found in the story: apart, bank, crust, down, faster, firm, first, float, forced, form, grains, heavy, little, midstream, plain, pull, pushed, quicksand, river bed, rivers, salt, sand, sinking, springs, streams, swells, underground, underneath, upward, water, weight

Related STEAM

words: density, liquified soil, mixture, non-Newtonian fluid, saturation, unstable, viscous

Words to build reading comprehension: alone, beds, calm, carefully, careless, common, easier, facts, finish, drains, dry, panic, plain, pole, position, quickly, settles, shores, slowly, solid, special, struggle, test, thin, usually, vine, wander, waves

Spanish Title: El libro de las arenas movedizas

ISBN: 9780823452125

Related Books: n/a

Click this link to the World Catalog or enter bit.ly/3RoC4Yf in your browser, to find *The Quicksand Book* in the public library.

STEAM EXPLORERS: BOOK GUIDE

Age Level	Related Foundations and Standards: Preschool Learning Foundation, Mathematics Preschool Learning Foundations, Science Next Generation Science Standards (NGSS)
Preschool/TK	Math: Algebra and Functions 1.0 Children begin to sort and classify objects in their everyday environment. 2.0 Children begin to recognize simple, repeating patterns. Science: Scientific Inquiry 1.1 Demonstrate curiosity and raise simple questions about objects and events in the environment. 2.1 Record observations or findings in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, and photos. Physical Science 1.1 Observe, investigate, and identify the characteristics and physical properties of objects and of solid and nonsolid materials. 2.1 Demonstrate awareness that objects and materials can change; explore and describe changes in objects and materials 2.2 Observe and describe the motion of objects, and explore the effect of own actions. Earth Science 1.1 Investigate characteristics of earth materials such as sand, rocks, soil, water, and air.
Kindergarten	NGSS Science and Engineering Practices: Analyzing and interpreting data; Constructing explanations and designing solutions; Obtaining, evaluating, and communicating information
Grade 1	NGSS Science and Engineering Practices: Analyzing and interpreting data; Constructing explanations and designing solutions; Obtaining, evaluating, and communicating information
Grade 2	NGSS Performance Expectations: Physical Science 2-PS1-1 NGSS Science and Engineering Practices: Analyzing and interpreting data; Constructing explanations and designing solutions; Obtaining, evaluating, and communicating information
Grade 3	NGSS Science and Engineering Practices: Analyzing and interpreting data; Constructing explanations and designing solutions; Obtaining, evaluating, and communicating information



