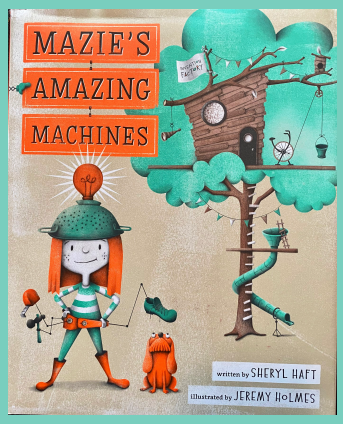

AUTHOR:
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ILLUSTRATOR:
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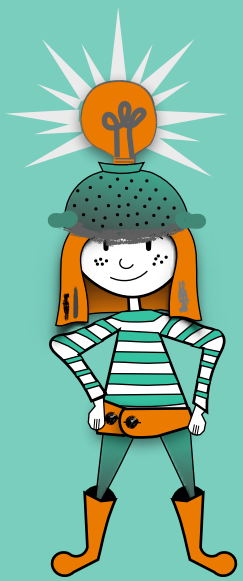
When Mazie finds a problem she puts her imagination to work, inventing machines to solve the problem.

Ages: 4 to 8 years

ATOS Level: n/a

Lexile: AD520L

ISBN: 9780399547867



Mazie's Amazing Machines

What problem would you like to solve?

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: simple machines, physical science, engineering, invention

Activities To Do Together: Use *Mazie's Amazing Machines* as a jumping off point to explore simple machines with your child. Levers, pulleys, wheels and axles, inclined planes, screws, and wedges (the six simple machines) are the foundation for many of the tools we use in everyday life. You'll find them in scissors, jar lids, hammers, nails, and ramps. Simple machines are often combined to make more complex machines such as bicycles, cars, and cranes. They're truly everywhere and make our lives easier and more enjoyable.

Before you read the book:

- Encourage your child to play with ramps and things that roll (for example, balls, cars, marbles).
- Explore with a seesaw. See what happens when you put different objects on the seesaw.

While reading the book with your child:

- Encourage them to follow the numbered steps for each invention that appears on the pages.
- Ask them to predict whether they think the invention will work.

When you have finished reading the story:

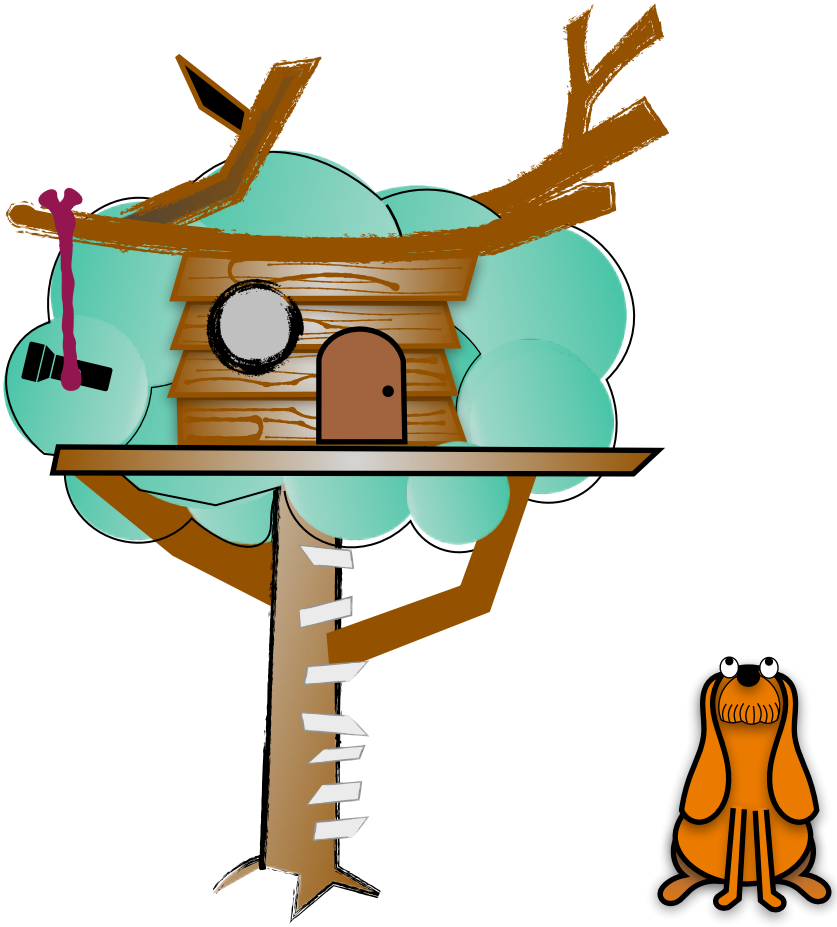
- With your child, discuss a problem they would like to solve by inventing something. Try following Mazie's problem-solving steps: think, draw, build. Talk about how mistakes are often a very important part of problem solving. Talk about what inventors learn from mistakes, and how those mistakes help them find great solutions and develop new creations. Learn from mistakes and try again!
- At the back of the book you will find a description of simple machines. Discuss with your child what simple machines do and how they help people.
- Notice all the simple machines around you. They can be found at the park, the store, the playground, and more. Make a game of being the first to spot a simple machine.

Questions for STEAM Thinking:

1. Which machine in the story do you think was most useful? Why was it useful?
2. Simple machines are all around us. Where have you seen a simple machine and what did it do? What problem did it solve?
3. What problem would you solve with a machine?
4. Mazie invented her own words to fit the situation such as engi-noying, and engi-nuisance, and wuggle. What do you think these words mean? Why do think so?

Early Math Project Resources:

Visit Mazie's Amazing Machines (countplayexplore.org/book/mazies-amazing-machines) to find activities and related California Learning Foundations, Mathematics Standards, and/or Next Generation Science Standards for this book.



Vocabulary

STEAM words found in the story: engineer, fulcrum, imagination, inclined plane, invention, lever, problem, pulley, ramp, screw, simple machines, spiral, wedge, wheel and axle

Related STEAM words: gravity, mass

Words to build reading comprehension: argh, bellows, brainstorm, humph, kinetic contraption, nozzle, scribble, snuggle, stomp, swoosh, valve, whomp, whoosh

Related Books: *The Most Magnificent Thing* by Ashley Spires; *Rosie Revere, Engineer* by Andrea Beaty

Click this link to the World Catalog or enter bit.ly/3Rg8sft in your browser, to find *Mazie's Amazing Machines* in the public library.