

## About the Book

The tween novel *LANA & THE WATER CARRIER* by Morgan Young answers the call for diverse children's books. It also introduces readers to the basics of astronomy in a fun and engaging adventure story.

Readers will fall for Logical Lana McNair—a quirky African-American girl with wild hair, a sharp wit, and a magic telescope!

Ideal for (but not limited to):

- ✓ 3<sup>rd</sup> grade (advanced readers)
- ✓ 4<sup>th</sup> grade
- ✓ 5<sup>th</sup> grade
- ✓ 6<sup>th</sup> grade (reluctant readers)

Order on Amazon, Barnes & Noble, or wherever books are sold. For bulk orders, email [morganyoungbooks@gmail.com](mailto:morganyoungbooks@gmail.com).

## About this Guide

Inside you'll find:

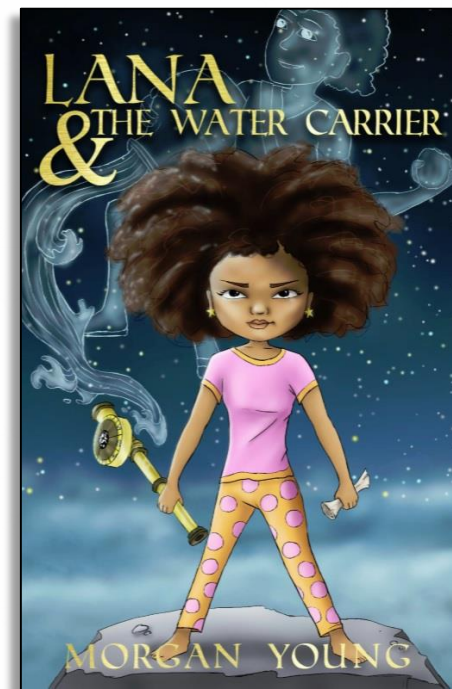
- ✓ Science, Technology, Engineering, Arts & Math (STEM/STEAM) Activities
- ✓ Targeted Next Generation Science Standards
- ✓ Targeted Common Core English Language Arts (ELA) & Math Standards
- ✓ How to book STEM Author/Engineer Morgan Young at your next event!



MorganYoungBooks.com  
Decatur, GA 30030

## ACTIVITIES GUIDE

For STEM/STEAM Teachers, Book Clubs  
& Camp Providers



## Book: LANA & THE WATER CARRIER

Logical Lana McNair is a 13-year-old on a mission to find her missing parents. Her only clue? A magic telescope!

While viewing the night sky, she finds herself thrust into the story of Ganymede the Water Carrier. He's the Greek mythological character depicted by the Aquarius Constellation—and he's stumbled upon a murderous plot!

Now Lana must use her telescope to help him out AND search for her missing parents!

## STEM Author Morgan Young



Morgan Young previously worked as an aerospace engineer at NASA Johnson Space Center. There, she served in Mission Control on a team that launched satellites to explore other planets in our solar system. Now she's on a mission to entertain children as they learn about science, history, and classical literature!

## STEM/STEAM Activities

**Visit a Nearby Planetarium or Observatory.**

**Find the Aquarius Constellation (or another constellation) in the Night Sky.** Is it visible year-round? Why or why not?

**Design a Constellation Self-Portrait.** The Aquarius Constellation depicts Ganymede holding his water jug. What would you include in a constellation of yourself? Sketch your own—or create a classroom mural!

**Make a Paper Plate Planetarium.** Paint a paper plate black. Poke holes through it using the pattern of the stars of the Aquarius Constellation (or any pattern of stars, including one designed by you). Grab an incandescent flashlight and go into a dark room. Shine your flashlight through the paper plate onto a wall!

**Build a 3-D Model of a Constellation.** Devise a scale to reflect the relative light year distances of the brightest stars. Affix bits of foil to varying lengths of string and hang them in a pattern.

**Research & write a short bio of a famous or not-so-famous astronomer.**

**Learn to Distinguish Between Fact & Fiction.** Distinguish the parts of Galileo's story that are real from the parts that are fantasy in the book. How do you verify your facts?

**Schedule an Author Appearance w/Morgan!** Just email [morganyoungbooks@gmail.com](mailto:morganyoungbooks@gmail.com).

## Next Generation Science Standards

### 5<sup>th</sup> Grade Space Systems:

#### Stars & Solar System

**5-ESS1-1.** Support an argument that differences in the apparent brightness of the Sun compared to other stars [are] due to their relative distances from Earth.

**5-ESS1-2.** Represent data in graphical displays to reveal patterns [such as] the seasonal appearance of some stars in the night sky.

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## Common Core

### 3<sup>rd</sup> - 5<sup>th</sup> Grade ELA Writing

**W.3.7, W.4.7, W.5.7.** Conduct short research projects that build knowledge about a topic.

### 4<sup>th</sup> - 5<sup>th</sup> Grade Math Practices

**MP(4)** Model with Mathematics.

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