

# Engage Your Students in STEM With Graphic Novels

## Isabel Morales

11<sup>th</sup>-12<sup>th</sup> grade Social Studies  
teacher, LAUSD

## Derek Heid

9<sup>th</sup> and 11<sup>th</sup> grade English  
Language Arts, TVUSD

## Betsy Gomez

Educational content developer

## Mairghread Scott

Writer, *Science Comics: Robots and  
Drones, Batgirl, The City on the Other  
Side*

## Yehudi Mercado

Creator, *Sci-Fu, Rocket Salvage, and  
Fun Fun Fun World*

Moderator

**Tracy Edmunds, M.A.Ed.**  
Education writer and consultant



# Mairghread Scott



Writer

*Science Comics: Robots and Drones*

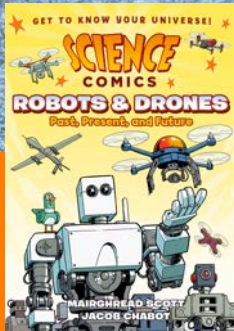
(With Jacob Chabot)

*The City on the Other Side*

(With Robin Robinson)

Comics: Batgirl, Guardians of the Galaxy, Transformers

Twitter: @MairghreadScott



# Yehudi Mercado



Creator:

*Sci-Fu*

*Hero Hotel*

*Rocket Salvage*

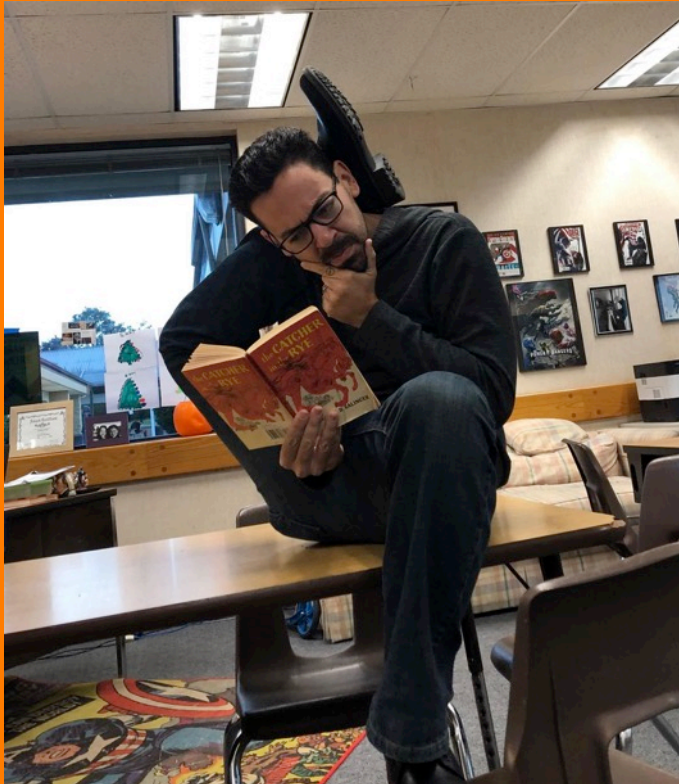
(With Bachan and Jeremy Lawson)

Upcoming: *Fun Fun Fun World*

Twitter: @ymercado



# Derek Heid



9th and 11th grade English  
Language Arts  
Temecula Valley Unified School  
District

Twitter: @dheid1

# Isabel Morales



12<sup>th</sup> Grade Social Science  
Teacher  
Mendez HS, Los Angeles  
Unified School District

Twitter: @isabeljmorales

# Betsy Gomez



Educational content developer

Coordinator of Banned Books Week

# Tracy Edmunds



Educational Writer, Editor, &  
Consultant

*Graphic Novels are Elementary*  
on Teachers Pay Teachers

*STEM: Engaging Hands-On  
Challenges Using Everyday Materials*  
(K-5 series from Teacher Created Materials)

Twitter: @TracyEdmunds

# Why Comics?

- Text & images work together
- Visualization of concepts and vocabulary
- Large amount of information in a short time
- Reader controls the pace
- Sequence
- Levels of meaning



# The Three E's of Comics in Education

(Josh Elder, Comics Ambassador and Founder of the nonprofit Reading With Pictures)

## ***Engaging***

Comics require readers to actively engage in making meaning from text and images.

## ***Efficient***

The comic format conveys a great deal of information in a short time.

## ***Effective***

Processing text and images together leads to better recall and transfer of learning.

## ***Research Shows***

Students who read text and images together:

- have better attitudes toward learning
- recall information more effectively
- transfer their learning to new problems

## ***Comics in the Subject Areas***

- Comics can make "boring" information more engaging.
- Factual information, academic vocabulary, and concepts are presented in context. The images provide detailed context/setting and visual representation of people, events, objects.
- Images can prompt emotional reactions in the reader.

## Derek Recommends:



### *The Not-So-Secret Society*

by Matthew and Arlene Daley,  
Wook Jin Clark



### *Lucy Dreaming*

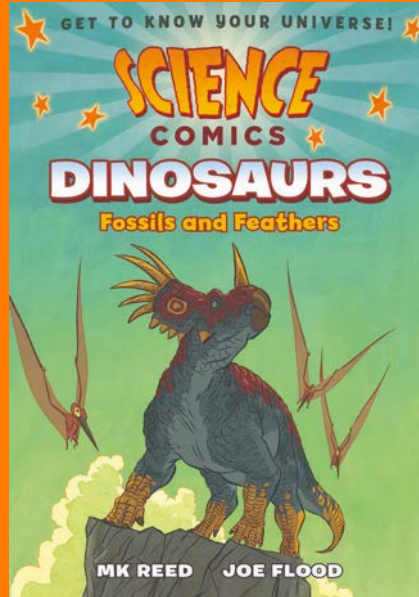
by Max Bemis, Michael  
Dialynas



### *The Arrival*

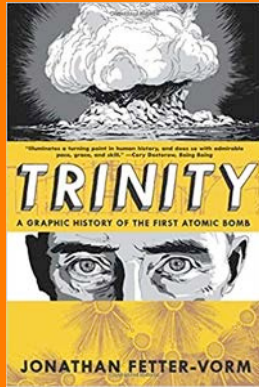
by Shaun Tan

## Mairghread Recommends:



*Science Comics: Dinosaurs*  
by MK Reed and Joe Flood

# Isabel Recommends:



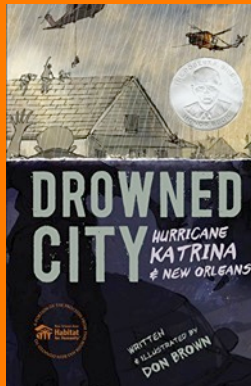
*Trinity: A Graphic History of the First Atomic Bomb*  
by Jonathan Fetter-Vorm



*Hawking*  
by Jim Ottaviani and  
Leland Myrick



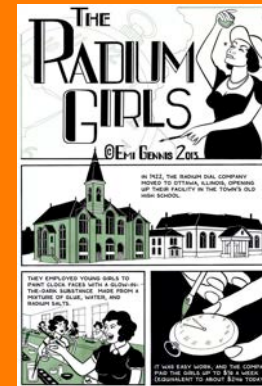
*The Great American Dust Bowl*  
by Don Brown



*The Drowned City*  
by Don Brown

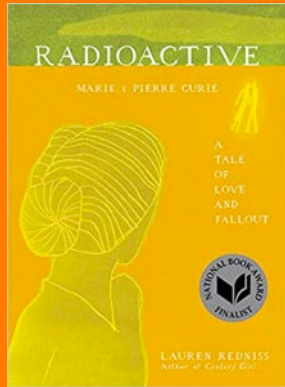


*The Harlem Hellfighters*  
by Max Brooks



*The Radium Girls*  
by Emmi Ginnis

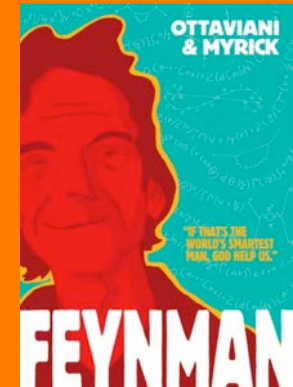
# Betsy Recommends:



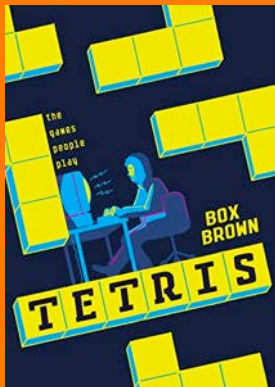
*Radioactive: Marie & Pierre Curie: A Tale of Love and Fallout*  
by Lauren Redniss



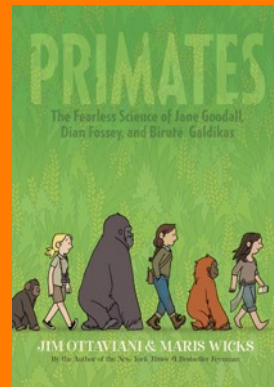
*Darwin: An Exceptional Voyage*  
by Fabien Grolleau and Jeremie Royer



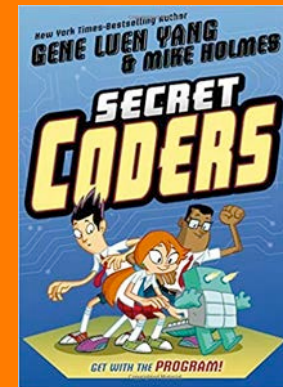
*Feynman*  
by Jim Ottaviani and Leland Myrick



*Tetris*  
by Box Brown



*Primates*  
by Jim Ottaviani and Maris Wicks



*Secret Coders*  
by Gene Yang and Mike Holmes

# Tracy Recommends:



*Howtoons*  
by Nick Dragotta, et al.



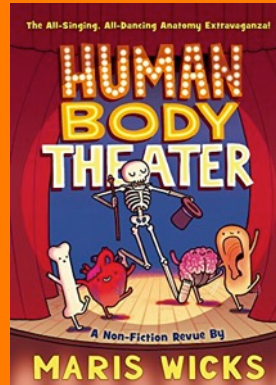
*The Secret Science Alliance  
and the Copycat Crook*  
by Eleanor Davis



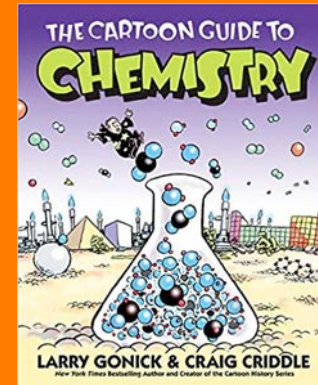
*Solution Squad*  
by Jim McClain



*Stinky Cecil series*  
by Paige Braddock



*Human Body Theater*  
by Maris Wicks

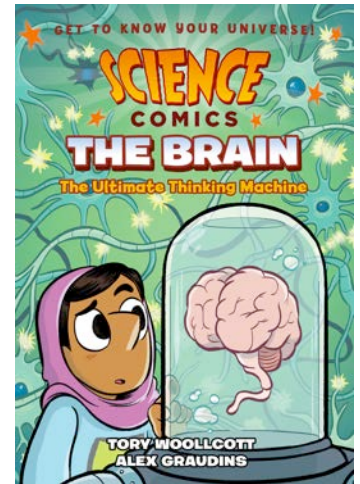
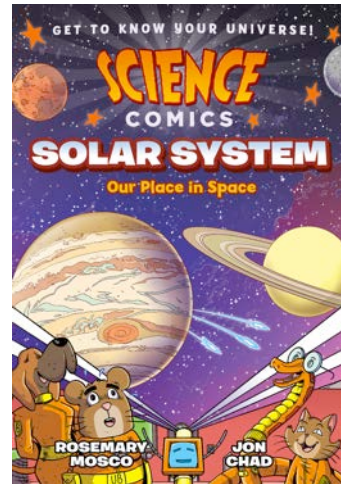
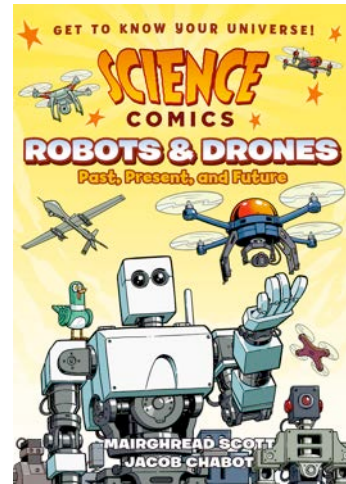
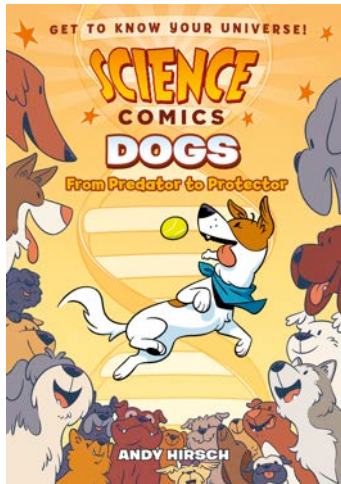
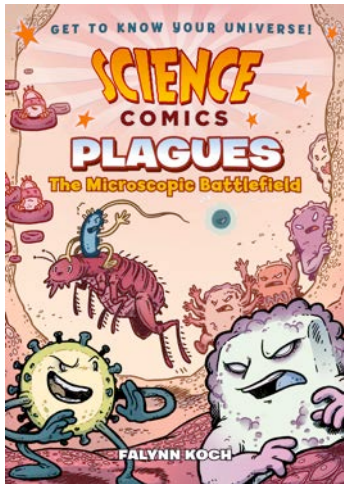
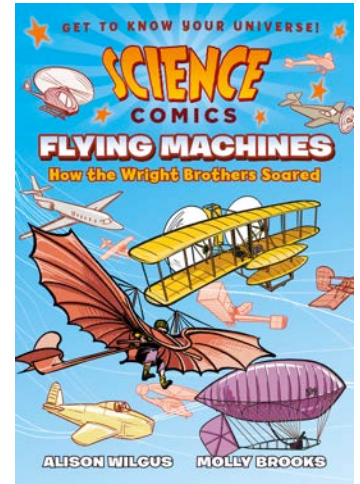
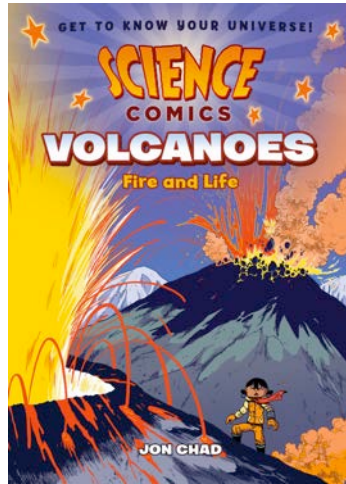
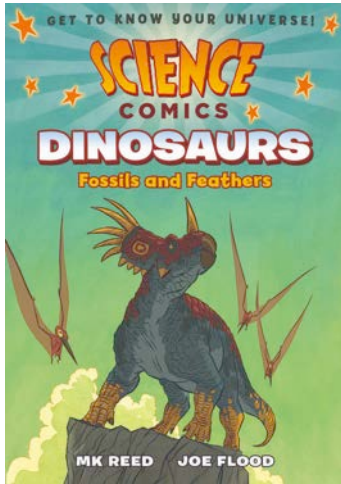
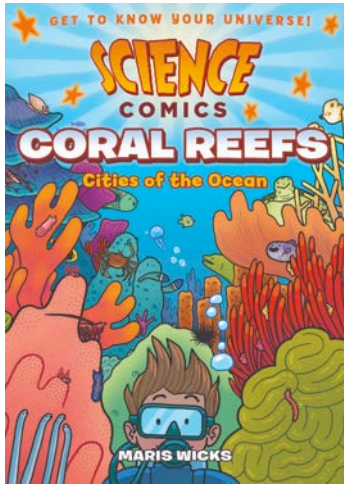


Larry Gonick's  
Cartoon Guides

★ GET TO KNOW YOUR UNIVERSE! ★

# SCIENCE COMICS

:01  
First Second



# Maker Comics

