

SCIENCE IN MOVIES

Tuesdays, September 9-December 16 (no class Oct 14, Nov 4 and Nov 25; 12 weeks) 9:30am -10:45am Ages 6-8

In this STEM-focused class, students explore scientific principles and engineering challenges inspired by popular films and characters. Through hands-on experiments, they investigate aerodynamics using dragon flight models (*How to Train Your Dragon*) and explore chemical reactions inspired by *Harry Potter*. While no movies are shown, students engage in physics, chemistry, engineering, and space science concepts using themes from *Shrek*, *Pokémon*, *Minecraft*, *The LEGO Movie*, and more to spark creativity and learning. All lab costs are included in the registration fee.

Instructor: Jessica Barnes, BSc Location: Science Center (suite 5) Full semester - \$220 OR \$20/lab (plus \$0.99 AH fee) 10% off sibling discount Register for full semester or individual labs.

LAB SCHEDULE:

SHREK SWAMP SCIENCE – Tuesday, September 9

Inspired by Shrek's love for the swamp, students dig into the science of soil, mud, and earthworms to learn how these messy environments support life and recycle nutrients.

HARRY POTTER POTIONS – Tuesday, September 16

Students become wizards as they practice the science of pH and create color-changing "potions" inspired by *Harry Potter*, learning how different acids and bases cause dramatic transformations in liquids.

LEGO MOVIE BUILD - Tuesday, September 23

Students build creative structures inspired by *The LEGO Movie*, while applying engineering concepts like stability, balance, and design to construct functional and imaginative models.

MINECRAFT BOW AND ARROW – Tuesday, September 30

We explore the science behind the mechanics of bows and arrows, using *Minecraft* as a foundation to understand force, trajectory, and the physics of projectile motion.



DESPICABLE ME SHRINK RAY- Tuesday, October 7

Students explore the fascinating science of polymers, focusing on their unique properties of shrinking and stretching, with a fun twist inspired by the shrink rays from *Despicable Me*.

HOW TO TRAIN YOUR DRAGON GLIDERS - Tuesday, October 21

Inspired by the dragons in *How to Train Your Dragon*, students explore the science of flight through gliders and paper airplanes, using principles of aerodynamics and flight control.

MUFASA AND LION HABITAT FRAGMENTATION - Tuesday, October 28

Students examine the impact of habitat fragmentation on lion populations, drawing inspiration from *Mufasa* and the challenges faced by Mufasa's pride in the wild.

ELIO AND ADAPTATIONS - Tuesday, November 11

Students explore the science of adaptations, learning how living organisms evolve and adjust to their environments, inspired by the unique alien biology in the movie *Elio*.

ANIMAL COMMUNICATION AND THE WILD ROBOT - Tuesday, November 18

We explore the science of animal communication, studying how different species use sounds, signals, and body language to interact, inspired by the animal behaviors in *The Wild Robot*.

MINECRAFT MOVIE REDSTONE ENGINEERING – Tuesday, December 2

Students learn the basics of circuits by comparing real electrical components to Minecraft's redstone system.

PADDINGTON AND THE AMAZON RIVER- Tuesday, December 9

Inspired by the movie *Paddington Goes to Peru*, students explore the Amazon River's ecosystem, learning about its biodiversity and the unique plants and animals that call it home.

POKEMON AND CATAPULTS – Tuesday, December 16

Students explore the science of catapults through the lens of Pokémon, learning how force, angles, and energy affect a Pokéball's trajectory. By building and testing their own mini catapults, they discover real physics concepts like projectile motion and kinetic energy—just like when aiming for the perfect catch!