

AWIS

ASSOCIATION FOR WOMEN IN SCIENCE

West Michigan



“Fall in Love with STEM”
February 18, 12pm to 3pm



Exploration Stations at GRCC

Grand Rapids Community College: Calkins Science Center
226 Bostwick Ave NE (Next to Ford Fieldhouse) – First Floor

Artistic Robots and The Claw (Engineering and Neuroscience)

Jealous of the cyborgs you see in the movies? Wish your brain could send signals to robotics devices? Your days of yearning are over. Backyard Brains introduces "The Claw", your very own DIY neuroprosthetic. Experience the future of robotics with Backyard Brain's The Claw, a motorized gripper that makes it possible for YOU to be the innovator of human interfaces! Use your newfound understanding of computer programming to explore how typical robots work and have robots create artistic designs based on your input.

Big-Bio versus Baby-Bio (Biology)

Investigate various real, biological samples under a microscope to understand the world around you. Compare pond water, hair, and blood, and determine how similar or different the samples look when examined up close. Create your own lab notebook to record what you discover!

Cracking the Genetic Code (Genetics)

Experiment with "Central Dogma" of cell biology: how genes encode proteins.

Games: Mathematical Strategies and Computer Programming

Look at the math behind strategy games and develop some simple computer programs. You will learn how to play various versions of a Nim-like game with a goal of finding a winning strategy for each version. Once you have mastered them, explore computer programming in python and beyond!

Model Solar System (Astronomy)

Explore the sizes of objects in our solar system and the distances between them. Create a 3D model of the Sun, Earth, and Moon and make a take-home map of the planet orbits. The results will surprise you!

Pattern recognition in DNA (Forensics)

Solving crimes, catching superbugs, and matching organ donors. What do all of these have in common? They require an understanding of the patterns in DNA and a method for matching one sample of DNA to another. Explore several activities to understand the structure and patterns of DNA.

The Spectacular Skeleton (Anatomy)

Learn the bones in the skeleton as you dissect owl pellets. Identify bones and compare them to the ones on a human skeleton. In the process, you will assemble a skeleton model of your findings to take home.

Register @ www.gvsu.edu/rmsc

For questions, please contact Dr. Karen Gipson at gipsonk@gvsu.edu

or Dr. Lauren Woolsey at laurenwoolsey@grcc.edu for site-specific inquiries.