

# Innovation is Everywhere!

## Big Learning Science & Engineering: S&E



SCIENCE & ENGINEERING



### Fall 2017: Anatomy



#### Featured Creatures

Explore the function of skin, hair, feathers, skeletons, and exoskeletons. Discover unique ways animals survive and protect themselves through experimentation and exploration. (Grades K-1 or K-2)

#### Jaws and Claws

Everyone has to eat! What can tooth, beak and claw structures tell us about an animal's diet and how they live? Examine different teeth and beaks to find out! (Grades 2-3 or 2-4)

#### Clue Club

What can you find in an owl pellet? Can you identify birds just by their songs? Investigate bacteria and fungi that live on your desk by growing them on a Petri dish. Explore DNA and extract it from cells! (Grades 3-5 or 4-5)

#### Building Big and Small (Engineering)

Build a miniature green roof and life-size tipis. In this hands-on series, children will stretch their understanding of what makes structures strong, learn and apply geometry and measurement concepts, and learn new history, vocabulary, and craft skills. (Grades 2-4) **(Available Fall and Winter Sessions)**



### Winter 2018: Chemistry

#### Chemistry Detectives:

Sleuthing for science! Children experiment with mixtures, solutions, acids, and bases to help solve our gold paper caper, and make glue from milk. (Grades K-1 or K-2)

#### Chemistry Creations:

Every kitchen has a fully stocked laboratory! Children enjoy the magic of changing colors, liberating gases, and see how chemical reactions can identify unknowns. (Grades 2-3 or 2-4)

#### Your Own Mini-Lab

Children make cheese, glue, and play putty in their own mini-lab! They have fun with viscosity, solubility, and acid/base reactions. (Grades 3-5 or 4-5)



**KIBO Robotics I:** This exciting offering uses the KIBO robotic system to teach computer coding, logic, and loops. Learn what a robot is and isn't, and what you have to tell KIBO to make it move? How can you command KIBO to make noise, avoid obstacles, shine its light, dance, and then do it all over again? (Grades K-1)

**KIBO Robotics II:** Go further with KIBO by writing more sophisticated conditional statements; use the new voice recording module, and turn your KIBO into many different types of machines with new the Lego® add on platforms. (Grades 1-2) **(Available all sessions)**

### Spring 2018: Earth Science

#### Layers

The clouds above, the earth below, and so much in between! Children will examine, construct, and discover the earth layers that make our home the 3rd rock from the sun. (Grades K-1 or K-2)



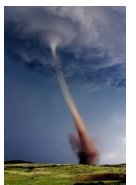
#### Rocky Road

Rocks that sparkle, rocks that float. From the pebble in your backyard, to crystals and gemstones, explore the beautiful and different pieces that make Earth. (Grades 2-3 or 2-4)



#### Wild Weather

Life on earth is an adventure! Children observe the effects of acid rain and toxic waste on the environment. They become real storm chasers and investigate the properties of Earth's "wild weather". (Grades 3-5 or 4-5)



#### ECO-KID! (Engineering)

Calling all future ecologists! Explore Earth's natural mechanisms for continuity, balance, and survival. Design amazing habitats and explore plant and animal life cycles! Build a new project every class! (Grades 2-4)



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These materials are neither sponsored nor endorsed by the Board of Education of Montgomery County, the superintendent, or this school.