Burke Middle School Science

Common Threads
The middle school science program is designed to stimulate curiosity by providing a challenging, hands-on program. We have embraced the “maker movement,” providing students with a variety of materials for them to design, build and manipulate. Students are encouraged to wonder, predict, observe, analyze data, solve problems and communicate their results and ideas. There is a strong focus on learning to work together to solve problems and explore scientific questions. Demonstrations, lab activities, coding and project-based learning are regular components of each class.

6th Grade Science
The sixth grade science course emphasizes the connections between science, other subjects, and the world around us. Hands-on activities encourage students to participate in the discovery of the life, earth and physical sciences as students investigate the year’s three themes: water, air and Earth. Students practice observing, classifying, estimating, predicting, recording and analyzing data, drawing conclusions, communicating results and ideas, problem-solving and cooperative learning. They study the Chesapeake Bay watershed as well as our local Rock Creek and Potomac River watersheds; local and global weather, climate, biomes, and geology.

7th Grade Life Science
In the first trimester, students discuss the scientific method and learn to apply it to a series of challenges. In the second trimester we explore the human body, exploring the circulatory, respiratory, digestive and reproductive systems. In the third trimester, we study ecology with a specific focus on the continent of Africa. Across the trimesters,
there is a strong focus on laboratory report writing and learning how to use scientific equipment. There is a tremendous amount of cross-curricular work in the 7th grade throughout the school year on projects such as Food & Friends & The African Magazine Project.

**8th Grade Physical Science**

In this course, students investigate topics fundamental to the study of physics and chemistry. They study energy in society, the design of machines, and the chemical makeup of substances. The course is designed to stimulate curiosity through lab activities, class discussions and projects such as automobile crashes, the creation of a roller coaster, the construction of Rube Goldberg machines, and a forensic science activity. Students develop the habits of mind and the skills necessary to do what a scientist does: wonder, observe, predict, analyze data, solve problems, and communicate results and ideas.

**Preparation for High School**

Students should leave middle school
- with an understanding of the scientific method
- with a foundation in earth science, biology, physics and chemistry
- able to write a laboratory report
- able to read and synthesize information
- able to complete a research paper or project
- able to communicate and share ideas with others
- able to use an iPad to gather and communicate ideas and research

**Our Twitter Feeds**

Follow us for a peek at what we’re doing in the classroom!

[@BriSci68](https://twitter.com/BriSci68) - Science teacher Brian DeCicco
[@AsMcYi7](https://twitter.com/AsMcYi7) - Science teacher Amy Cataldo