



## SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2025.** Please include this submission form as the first page of your electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact [Gage Harter](#).

### PROGRAM INFORMATION

County: Henrico County  
Program Title: Science Sleuths  
Program Category: Parks & Recreation

### CONTACT INFORMATION

Name: Angela Bennett  
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### SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: Monica Smith-Callahan  
Title: Deputy County Manager for Community Affairs  
Signature:

## **Program Overview**

Science Sleuths was developed to bring accessible and engaging STEM education to youth in Henrico County. Before the program's initiation, consistent STEM programming was limited in the area, leaving many students without the opportunity to explore these fields outside of school settings. The program aims to address this gap by offering hands-on STEM experiences that captivate and inspire young learners.

Each session features a live STEM demonstration, showcasing concepts that may not be easily accessible in traditional classroom environments. Following the demonstration, participants are encouraged to engage directly with the material through hands-on activities or experiments.

This interactive approach not only sparks curiosity but also equips participants with the knowledge and skills to recreate the activities at home, fostering continued learning and exploration beyond the program.

Ultimately, Science Sleuths seeks to inspire a love for STEM subjects while providing valuable opportunities for youth to develop critical thinking and problem-solving skills.

## **Problem/Challenge/Situation Faced by Locality**

Henrico County would benefit from the development of more consistent and accessible STEM programming in extracurricular settings. This enhancement could provide valuable opportunities for students to engage with science, technology, engineering, and mathematics outside of the traditional classroom environment. Several existing programs require registration and have limited capacity, making them inaccessible to many youths.

Additionally, these programs often do not provide hands-on, interactive experiences that engage participants deeply. The Science Sleuths program was created to address these gaps by offering free, no-registration-required STEM content that is open to all ages and abilities. This inclusive approach allows participants, whether experienced or new to STEM, to engage with hands-on activities and demonstrations.

Science Sleuths fosters curiosity, deepens understanding, and provides opportunities for continued learning, ensuring that all youth in the community have access to valuable STEM experiences.

### **How The Program Fulfilled Award Criteria**

The Science Sleuths program is a deserving candidate for the VACo Award as it meets all the criteria: it is an innovative solution, a collaborative effort, and provides a model for other localities. Since its launch, Science Sleuths has provided free, accessible STEM education to youth across Henrico County, reaching 284 participants through nine sessions at six different parks. The program's hands-on approach fosters critical thinking and problem-solving skills while sparking a love for STEM in youth of all ages and abilities.

By offering no-registration-required sessions in multiple parks, Science Sleuths ensures equitable access to STEM education, particularly for underserved communities. The program's scaffolding methodology adapts to different age and experience levels, ensuring all participants benefit. Partnerships enhance the program with specialized resources and equipment, further enriching participants' experiences.

With positive feedback and growing demand for expanded content and locations, Science Sleuths has proven to be a valuable resource in Henrico County.

### **How The Program Was Carried Out**

Science Sleuths is a community-driven STEM program created to provide all youth in Henrico County with valuable, hands-on experiences that foster critical thinking, problem-solving skills, and a deeper understanding of science, technology, engineering, and mathematics. The program is designed to engage participants of all ages and abilities, offering an inclusive, accessible approach to STEM education outside of the traditional classroom setting. By offering engaging, interactive demonstrations followed by hands-on activities, Science Sleuths aims to spark curiosity and build confidence in young learners, exposing them to various STEM concepts and opportunities they might not encounter otherwise. Some examples of sessions we have held thus far include rocketry, air pressure, catalysts in chemistry, and the scientific method.

The program's development is grounded in a scaffolding methodology, ensuring that all activities are carefully structured to meet the developmental needs of participants, regardless of their prior knowledge of STEM. Each session includes a demonstration, where concepts are introduced in an engaging, accessible manner, followed by hands-on activities that allow participants to apply their learning. The activities are intentionally designed to be cohesive and build on each other, allowing for deeper engagement and long-lasting learning outcomes. This structure enables all participants, from beginners to those with more advanced knowledge, to gain meaningful experiences and feel empowered to explore further.

Science Sleuths is offered to the community free of charge and without the need for registration, making it more accessible to all, regardless of socioeconomic status. The program operates once a month in multiple parks throughout Henrico County, ensuring that it reaches youth from all neighborhoods and providing equitable access to high-quality STEM content. Additionally, the times for each program are specifically designed with the ability to reach as many participants as possible, either after school or on days when school is out. This widespread availability is essential to creating an inclusive environment where every child, regardless of background or location, has the opportunity to participate.

The program is supported through partnerships with organizations such as Mad Science, which enhances programming by providing additional resources, equipment, and expertise. These partnerships expand the scope of the activities and allow for a greater number of participants, ensuring that more youth can engage in the program's offerings. Mad Science's involvement also helps provide specialized experiences, such as interactive experiments and advanced equipment, that would otherwise be difficult to deliver at a local level. This collaboration significantly enhances the quality of the program, broadening its impact and providing participants with a richer, more diverse STEM experience.

### **Financing and Staffing**

The Science Sleuth program is designed to be cost-effective while maintaining a high-quality, engaging STEM experience for all participants. So far, for fiscal year 24/25, the program has cost approximately \$1,000. Costs fluctuate based on the type of demonstrations and activities provided, but we strive to keep expenses low by utilizing widely available household products in

many of our hands-on activities. This approach not only reduces costs but also empowers participants to recreate or further explore these activities at home.

Most of the program's expenses go toward purchasing chemicals, safety equipment, and supporting our partnerships with organizations like Mad Science, which help expand the scope and reach of the program. As we continue to grow, we anticipate that costs will rise to accommodate an increasing number of participants and to build a sustainable inventory of specialized equipment and materials. Despite this, we remain committed to keeping the program accessible and free of charge for all participants.

### **Program Results**

Since its inception in 2024, the Science Sleuths program has successfully facilitated nine engaging STEM sessions at six different parks across Henrico County, serving a total of 284 participants. The program has received overwhelmingly positive feedback from participants, with many expressing excitement and enthusiasm for the hands-on, interactive learning experiences provided. A key indicator of success is the establishment of a core group of participants who return each month, highlighting the program's ability to build ongoing interest and foster a sense of community among learners.

The program's reach and impact continue to grow, with four additional Science Sleuths sessions already scheduled for the spring and summer of 2025. This expansion demonstrates the program's increasing popularity and its ability to meet the community's demand for more STEM content. Participants have requested an even wider variety of STEM topics and have expressed

interest in expanding the program to all parts of the county to ensure that even more youth can access the valuable educational opportunities offered.

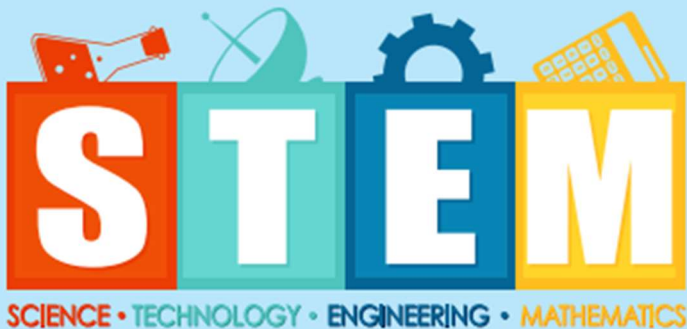
## **Executive Summary**

Science Sleuths was developed to bring accessible and engaging STEM education to youth in Henrico County. Before the program's initiation, consistent STEM programming was limited in the area, leaving many students without the opportunity to explore these fields outside of school settings. The program aims to address this gap by offering hands-on STEM experiences that captivate and inspire young learners.

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This interactive approach not only sparks curiosity but also equips participants with the knowledge and skills to recreate the activities at home, fostering continued learning and exploration beyond the program.

Ultimately, Science Sleuths seeks to inspire a love for STEM subjects while providing valuable opportunities for youth to develop critical thinking and problem-solving skills.



**Science Sleuths: Winter Wonderland**

*Fri, Dec 27, 3:30-4:30pm. Twin Hickory Park. #16461*

*All ages.* Unleash the magic of winter through science! Join us and Mad Science for an exciting Winter Wonder science demonstration where kids can explore the frost mysteries of the season!

**Science Sleuths: Air Pressure**

*Thur, Jan 9, 4-5pm. Crump Park. #16462*

*All ages.* Dive into the world of air pressure with Mad Science! In this interactive program kids will explore the power of air pressure through hands-on experiments and exciting demonstrations. Watch as every day objects are transformed by the invisible force of air pressure and discover how it impacts our daily lives in surprising ways!

**Science Sleuths: Magic Genie**

*Thur, Feb 6, 4-5pm. Deep Run Park. #16468*

*All ages.* Experience the magic of science by witnessing the mesmerizing "Magic Genie" demonstration! Then, roll up your sleeves and create your own explosive reaction using baking soda and vinegar. This hands-on experiment will have you bubbling with excitement as you discover the wonders of chemistry.

Information: [bar174@henrico.gov](mailto:bar174@henrico.gov)

