

Sarah Marino & Kelli Bravo

What is the title of your leadership project?

Science Research Round Table

Which option did you choose and why did you select the option/topic?

We chose the PD option. There are not a lot of options for PD for Science Research. The goal is to create a space for Science Research teachers to share their ideas and resources and receive support. There is no specific curriculum for Science Research - more of a general flow and understanding. We really rely on each other for support with curriculum development. An additional goal would be to share with our colleagues the precollected data that is available on the NASA website, and how we can be creating research opportunities in our classrooms, beyond the use of a mentor, which could be beneficial for first year students who do not yet have a mentor to work on a project with.

Who is your proposed audience? Which teachers will you serve with your PD and activities? What grades, subjects, and how many students do they teach?

Westchester Science Research teachers - grades 10-12 (potentially some 9th grade teachers, depending on the structure of their Science Research program). The number of students taught differs between districts and the size of the program. The size of the program also impacts strategies and implementation within a course.

How will your project demonstrate integration of STEM in the classroom?

Science Research inherently integrates STEM by immersing students in the full research process. Students select a topic of interest across any STEM discipline, develop the skills required for that field, conduct independent inquiry, analyze data, and communicate their findings through a formal research paper and presentation. Because projects span fields such as biology, engineering, physics, computer science, and environmental science, students engage with STEM in an authentic, student-driven way.

A key focus of this PD is addressing a growing challenge in modern research: the appropriate and responsible integration of artificial intelligence. We will engage in discussions around when and how AI tools can be used ethically and effectively in scientific research, emphasizing critical thinking rather than the replacement of scientific reasoning. In addition, the PD will prioritize resource-sharing to expand student access to high-quality data and tools. This includes introducing and curating publicly available NASA datasets and research resources, allowing students to explore real-world data and consider how large-scale datasets and emerging technologies can support meaningful scientific inquiry. We will also send a Google Form to participants prior to the PD to get a sense of topics they would like to engage in to further support our community.

What outcomes or expectations do you hope to see for your educators?

The goal would be for all Science Research teachers in attendance to gain new activities and materials that work to benefit their students. We are not all experts in all of our kids' content areas, so it is important that we become experts in coaching and supporting our students to help them achieve success. We are hoping to provide an opportunity for teachers to share their successes and failures, and gain new ideas that they can incorporate into their own teaching and their own classes. Sarah and I hope to inspire our colleagues to utilize the precollected data and research opportunities that NASA provides, either as a basis of a project or as a first-year introductory research opportunity.

How will you follow up with the teachers in attendance?

Send a Google Form directly following the meeting, asking for feedback and takeaways. Follow up with a second optional form for teachers to share what new strategies/activities they used in their classrooms and how they worked.

Plan for timing

There is a Science Research competition in Westchester on March 14th, 2026. This is the culmination of the work we do in our course. For the next month, all SR classes and teachers are focused on getting their students to the finish line and presenting at the competition. We are planning to hold the PD the week after the competition, in order for teachers to be able to reflect on how their practices impacted their students' performance at the competition. This will be fresh in their minds, and it will be an optimal time for teachers to reflect and share about their work and determine what they need to improve on for next year.