

Reach Academy for Girls Science and Social Studies Plan

In order to improve test scores, as they are related to science and social studies, we will begin with a review of our current units of study for social studies and science. An action plan will be developed, and this plan will aide students in becoming more involved in these particular content areas. Additional methods for countering the lower test scores will be through teacher literature study groups. All teachers will participate in ongoing literature studies related to motivating students through historical book clubs and student workstations.

To ensure continued improvement, the school wide plan will include integrating learning across these subjects within our school, as well as beyond our school walls. For instance, a recent Teachers College conference provided staff with information that would support our efforts with implementing social studies stations within our Daily Five literacy framework. In addition, environmental-based educational programs will emphasize investigations of natural and social systems in the local environment, such as our school wetlands. The focus will be integration of science and social studies through environmental activities that are problem based and related to community and fieldwork activities. In addition Reach Academy for Girls will do the following:

1. Realign Units of Studies for Social Studies and Science- Grades K-8

Reach Academy for Girls will realign our units of study so that they include one core text that's fiction and one that's informational, leaning towards science and social studies. The informational text will focus on science or social studies. The *Multiple Sources* informational text standard requires elementary school students to examine two or more texts on the same topic. The focus here is on analysis. Students are expected to analyze how the sources present information. This includes an analysis of the content, presentation, and word choices. For example, a science book about plants might have a narrative story where the main character walks through the woods, but the information in the nonfiction text doesn't really deepen understanding of the narrative text at all (or vice versa). For example, read one text aloud and use another during shared reading, or use one text in shared reading and another in small group instruction. Lastly, using related texts on the same topic to do what we refer to as "reading up." We will build a staircase of complexity for readers by giving them easier texts on a topic to read before they read the harder texts.

2. Realignment of Reach Acceleration Tasks and STEAM

Reach Academy for Girls will realign our acceleration tasks so they focus on STEAM and historical aspects of learning. Our goal is to teach science and social studies through the lens of art. For example, through a scavenger hunt at a local museum, science/social studies and art students come to understand that historical architecture and buildings is the same thing as perspective in art. Middle school students can learn about explorers of South America and mosaics or rain forests at the same time. The students study traditional turquoise mosaics and create their own versions with bits of paper, or students study habitats and create virtual rain forests with web-based tools.

3. Community Out Reach- Grades K-8

Another way we will address the disparities between science and social studies scores is by forming a partnership with DNREC and Delaware State University. DNREC will assist students in the upper grades to demonstrate the testing of the surrounding water and soil samples to determine if these samples are safe for the environment. DNREC professionals will collaborate with students and provide strategies and techniques to ensure these young adults can properly care for the environment in the future. Our Delaware State University partnership has teamed us up with Science and Engineering majors that will come to Reach Academy on a bi-weekly basis to teach, model or assist in elementary and middle school Science classes with lessons that align with the common core state standards. Through experiments, projects, and discussions they will explore chemistry and science in small groups emphasizing lab safety while communicating fundamental concepts in science and encouraging students to exercise their reasoning skills. A Reach Academy for Girls board member, Dr. Cherese Winstead, who is the chairperson for the Department of Chemistry and Research, established this relationship. Through this relationship, Reach's students will be challenged in the field of science and the college students will share their knowledge and enthusiasm for science. The first meeting for the Delaware State University students to attend Reach Academy is scheduled for the middle of November.

4. Collaborative Coaching and Professional Development- Grades K-8

Reach Academy for Girls instructional coaches will provide coaching to science and social

studies teachers in grades K-8. The instructional coach's primary role is to work with science/ social studies teachers to support evidence based practice in using data, provide analysis of school-wide trends in instruction, and make recommendations about potential next steps to address areas of need. As an advisor to science and social studies teachers, the coaches will be responsible for three main areas:

- Observing instructional delivery and providing feedback to enhance and support the development of each teacher's content area
- Supporting science and social studies teachers in the design of units and lessons for the development of their curriculum,
- Analyzing data in order to modify curriculum and forms of assessment to meet student's needs

Lastly, Reach Academy for Girls is part of both the Science and Social Studies coalitions. All staff members will continue to receive all professional developments that both coalitions recommend for each grade level. Our recent partnership with the Social Studies coalition has allowed our middle school Social Studies teacher to begin using the Delaware recommended curriculum.