Paulsboro Schools

Curriculum

Science Seminar

<2013 - 2014>

*** For adoption by all regular education programs**
Board Approved: 5/2014
as specified and for adoption or adaptation by all Special Education Programs in accordance with Board of Education Policy.

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Paulsboro Schools Mission Statement

The mission of the Paulsboro School District is to provide each student educational opportunities to assist in attaining their full potential in a democratic society.

Our instructional programs will take place in a responsive, community based school system that fosters respect among all people.

Our expectation is that all students will achieve the New Jersey Core Curriculum Content Standards (NJCCCS) at every grade level.

Science Seminar

3 credit - summer course

Course Description:

Students will study five New Jersey ecosystems: The Maurice River, the Pine Barrens land ecosystems, the Pine Barrens water ecosystems; the Cape May peninsula ecosystem and the Barnegat bay / barrier island ecosystem. Students will be given an overview of the basic ecological principals and framework that allows students to identify the important components of ecosystem. Students will be given a template to use in the field and one to be used in the laboratory setting.

Students will assess how humans relate to the natural systems and will develop awareness of the importance of making wise individual and group decisions in respect to the use of natural resources and the maintenance of environmental quality.

Students will have firsthand interaction with terrestrial, aquatic and atmospheric components of the environment. From this experiential base and they will collect samples and gather data.

Students will use journals, portfolios, multimedia, topographical maps, resource materials, textbooks, identification books, and internet materials to identify and understand what they discovered in their field experiences.

Students will work in focus groups to select an environmental problem related to the field work. They will research the “pros and cons” of the problem including identification of the biological and

physical aspects and also include historical/cultural background of the specific field site. Students will document the project with appropriate video materials. Students will present the findings of the project as a closing activity in the program.

General Objectives

1. To expose students to five New Jersey ecosystems (njccs-5.1-6,7,10)
2. To create templates by which students can further understand field and laboratory study (njccs-5.4-6,12)
3. To create a format by so that students can process information and present findings in a team setting. (njccs-5.2-5.5)
4. To create real time projects in which students use creative problem solving skills to understand current ecological issues. (njccs – 5.3-12)

Specific Objectives

1. To define and give access to information fostering understanding of the five ecosystems studied.
2. To document the experience using multi-media equipment, scientific instrumentation, journaling and group discussion.
3. To gather information and data at each field site and compare and contrast the results.
4. To create a laboratory experience where resources of all types are available for processing the field data.

5. To create team groups that will be able to successfully select an environmental problem and generate reasonable ways to solve the problem.

Evaluation:

1. Multi-media representation of the five ecosystems.
2. Individual journals and portfolio materials.
3. Historical / Cultural research.
4. Field and Laboratory participation.
5. Team group work and final project presentation.