

Lesson Eleven

Small Group Pull Out/ Website

Grade: Fourth Grade

Time: 35-45Minutes (w/small group accommodations)

Materials: Completed assessments, the location will be in an available computer lab or w use of the classroom computers. Students will all go on the website below, to review learning, materials and participate in interactive activities regarding electricity.

<http://www.engineeringinteract.org/resources/siliconspies.htm>

Objective: The teacher will review in small group the assessments with the students. The teacher coordinates groups of students based on commonalities amongst their assessments. While the teacher is doing this the others will be on the above site working with electrical manipulatives online, as well reviewing previously learned content. The students will sort electrical and nonelectrical devices, learn new vocabulary such as ac/dc, identify conductors and insulators, and work with circuits.

Standards: NYS/National Standards

New York State Standards: Standard One: Analysis, inquiry, and design.

- Scientific Inquiry: Key Idea One, The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing creative process. **S1.1** Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about. **S1.1a** Observe and discuss objects and events and record observations. **S1.3** Develop relationships among observations to construct descriptions of objects and events and to form their own tentative explanations of what they have observed. **S1.3a** Clearly expresses a tentative explanation or description, which can be tested.
- Key Idea 3: Observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into phenomena. **S3.2** Interpret organized observations and measurements, recognizing simple patterns, sequences, and relationships. **S3.2a**, state orally and in writing, any inferences or generalizations indicated by the data collected.

Technology Education: Standard Five: Computer Technology

Key idea: Computers, as tools for design, modeling, information processing, communication, and system control, have greatly increased human productivity and knowledge.

- Use the computer as a tool for generating and drawing ideas

Lesson Eleven (cont.)

National Standards:

NS.K-4.2 Physical Science

- As a result of the activities in grades K-4, all students should develop an understanding of the following: properties of objects and materials, position and motion of objects, and light, heat, electricity, and magnetism. Utilized to build an electrical circuit as well as being able to understand electricity and its path traveled.

NS.K-4.1 Science Inquiry

- As a result of the activities in grades K-4, all students should develop abilities necessary to do scientific inquiry, and understanding about scientific inquiry.

NT.K-12.5 Technology Research Tools

- Students use technology to locate, evaluate, and collect information from a variety of sources.
- Students use technology tools to process data and report results.
- Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

Procedure:

- 1.) The teacher will inform students that they will be working on an interactive website based on electricity. The teacher will set all students up and have the website displayed for each student.
- 2.) The teacher will instruct students that they will have to read and listen to the directions as they move through the web site.
- 3.) The teacher will also direct students to keep their headphones on and follow the computer lab rules, if they have a question raise your hand and wait for the teacher's response.
- 4.) The teacher will also be circulating through all of the students in groups of four.
- 5.) The teacher will get each student after each rotation rather than call out names due to the wearing of headphones.

Conclusion:

- In conclusion the teacher would have circulated through each group of students reteaching and clarifying any component of the previous learned material based on the outcome of their assessment. The students would have utilized the resources on the website to interact with manipulatives and elaborate on current knowledge of electricity.