

Clustering

Science Standard IV

Objective 2

Science Standard IV: Students will understand features of static and current electricity.
Objective2: Analyze the behavior of current electricity.
Intended Learning Outcomes: 3. Understand Science Concepts and Principles 4. Communicate Effectively Using Science Language and Reasoning
Content Connections: Language Arts VII-1, 2

Background Information

Vocabulary is an essential tool in understanding the concepts of electricity. As students attempt to organize unknown words into related groups, they are faced with a dilemma—they lack the knowledge to complete the task accurately. A purpose for reading non-fiction text is created—specific information is needed.

Invitation to Learn

Each group is given the opportunity to cut apart the vocabulary cards for the electricity unit and arrange them in a web or cluster design. Provide tape and markers to aid groups in developing an organizational pattern of how these words fit together. Each table shares their design when finished.

Instructional Procedures

Materials

For each group

- Vocabulary Cards
- Markers
- Poster
- Masking tape (about 15 inches)

For each student

- ABC Electricity handout

1. Arrange students in cooperative groups of no more than five people. Pass out a set of *Vocabulary Cards* (p. 8-30), markers, and a poster to each team. As a group, organize the *Vocabulary Cards* into a web design and create a *Cluster Poster* (allow five to seven minutes for this task). Groups share their *Cluster Posters* and display them on the wall.
2. After sharing, the class is assigned to read in a non-fiction text about electricity. During reading, fill out the *ABC Electricity Words* worksheet (p. 8-31) with vocabulary words embedded in the text. Include in each box a short definition of a word inferred from context clues in the text.
3. With new knowledge gained from the reading selection, groups may revisit their *Cluster Posters* and make adjustments.

Possible Extensions/Adaptations/Integration

- *ABC Words* worksheets work well when taking notes during a video, filmstrip, or discussion.

Assessment Suggestions

- Adjustments made to *Cluster Posters* upon completion of reading are a visual representation of knowledge gained.

Additional Resources

Electricity and Magnetism, by Mary Atwater (MacMillan/McGraw-Hill); ISBN 0-02-276128-4

Family Connections

- The *Cluster Posters* and the *ABC Words* worksheets are two useful tools to organize informational reading at home.

Vocabulary Cards

Electricity	Current Electricity	Load
Pathway	Lightening	Conductor
Insulator	Power Source	Attract
Repel	Incomplete Circuit	Battery
Static Electricity	Complete Circuit	Switch

Name _____

ABC Electricity Words

A	B	C	D
E	F	G	H
I	J	K	L
M	N	O	P
Q	R	S	T
U	V	W	XYZ