UNIT 14:

Water in the News

Water in the News!

OVERVIEW OF ACTIVITY:
Students investigate current events related to water, science, resource management and protection linking classroom experiences and real world issues. Through newspaper articles and other sources, students discover the excitement and relevance of these dynamic, constantly changing fields.

OUTCOMES:

- Investigate local, regional, national and international current events.
- Research and analyze different sources of information.
- Develop verbal and written reporting skills.

PURPOSE:
Exploring water in the news is easy - all it takes is a newspaper. Students learn about real problems and how scientists and government bodies are helping to solve them. Discussing water in the news also helps students establish important multidisciplinary connections that integrate science and resource management within a societal context.

SOURCES OF CURRENT WATER MATERIALS:

- ***Newspapers*** may be the best source of current events. Most have weekly special sections that deal with science or resource management.
- Articles are usually written at a level that Grades 4 to 6 students can understand, providing opportunities to connect classroom topics with real world developments.
- General interest or regional news items often cover scientific break throughs; research studies; and local projects.
- ***Science journals*** are another source of current information. They can be used to verify the accuracy of newspaper articles. Regional governments also have special periodic publications dealing with local interest issues, such as community resources, water and the environment.

TEACHING STRATEGIES:

Teacher Presentations:

- Introduce a water current event as a part of a 5 to 10 minute discussion. Demonstrate enthusiasm for the topic and model how you would like students to present their news articles.
- Hold each article up for the class to see and summarize the main points.
- Lead a discussion to help students link the news item to everyday life and the science you are studying in class.
- Discussing news items on the day they are released adds an aura of excitement.

Questions/Discussions:

- Linking water current events with social, economic or legal issues demonstrates the inter-disciplinary nature of science.

- Linking water current events with social, economic or legal issues demonstrates the inter-disciplinary nature of science.
- Many articles show the inter-disciplinary nature of a given topic and demonstrate the diversity of careers related to the area of study.
- To highlight these areas, students can identify the inter-disciplinary aspects of an article or the scientific background needed for a scientist, biologist, etc. working in a particular field.

Debates:

- Current events often have many different sides. Students can identify the different sides and list the pros and cons of each.
- Look for links beyond the immediate issue that effect the world of the student.

Student Presentations:

- As a familiarization with current events occurs, students can take responsibility for introducing a water current event in a format of their choice.
- Presentations should summarize the concepts involved and their impact on society. This could also be completed in small groups. Examples: a news cast over the school's public address system; a news conference; a television show; a town meeting; a video or an oral report.

Cooperative Learning:

- If students share news items between groups it can help to expand everyone's knowledge. Try one of these:

A) One-minute sharing

- In a group of four, present oral or written summaries of articles. Act as the time keeper and notify students at the appropriate time that they have only five seconds remaining. In only four minutes each student has had an opportunity to present and has learned about three other articles.
- *Extension*: Each group can decide on one article they would like to share with the whole class. The choice of article helps students analyze the significance of the articles presented. This activity could also be combined with writing.

B) Practice Listening Skills

- Students can give an oral summary of an article presented by a partner/reporter.

- The partner/reporter then relates the main points of the article to other group members. By listening to the reporter, the original speaker receives feedback on how well he/she explained the article. This works well in groups of four where it is undertaken by two pairs and then the group joins up for reporting.

C) Expert Group Method

- The "Expert group" method works well when there are many articles worthy of discussion. Divide the class into "home groups" that equal the number of articles under discussion.
- Each student in the home group is assigned an article for study and then meets with the "expert

group" made up of other students also assigned that article. The expert group can then answer questions the teacher assigns.

- Once group members have become "experts" they report to their "home group". Since only one person from the home group has read a particular article, students learn from each other.

Writing:

- Students practice writing skills by summarizing articles in 1 - 3 sentences.
- This type of precise, accurate writing is not often practiced in other subject areas, but is very important for the effective study of science.
- Summaries can be from articles the student has read, or those reported by other students. They can then be kept in a journal or portfolio.
- For variation, students can write letters describing water in the news to parents, scientists, local government or other students. This allows students to summarize articles and share opinions.
- Students can also prepare executive summaries, like those used in government, for articles appearing each week or month.
- At the end of the unit, students can analyze their writing to identify areas of activity in resource management. These can be shared in small groups, identifying trends that emerge from their work. By keeping track of these trends from year to year, students can trace developments and outcomes of many environmental issues.
- *Extension*: Students interview parents or other elders about the most significant water or environmental news events of their life time to help students elongate their trend study.

Telecommunications:

- Students can use telecommunications much the same as scientists and regulators do to exchange information and opinions with students in other schools.
- Through an on-line information exchange, students can discuss the latest events.
- Many scientists, regulators or interest groups who are on-line will respond to student inquiries.
- Telecommunications can also be used to search for other sources of water news as many scientific journals and bulletin boards can be accessed.
- Investigate the World Wide Web and Internet for sources of information and exchange.

Charts and graphs:

- Many articles include charts or graphs which provide students the opportunity to practice interpreting them.
- Students can create graphs and charts based on data found in articles and share their findings with others.

Bulletin boards:

- Using the strategies above, many exciting results are created. Share these with the rest of the class or school - thought-provoking questions often enhance the display.

SOME IDEAS ABOUT ASSESSMENT:

- Using water in the news can help assess what students have learned. By analyzing an article that is related to what is being studied in class, students can identify how their studies apply to the article, why they agree or disagree with the article, explain how it relates to their world and how they would proceed with further study.

SPECIAL STRATEGIES FOR SPECIAL NEEDS STUDENTS:

- Water in the news provides unique opportunities for special needs students to read short articles, listen, talk, write and draw.
- ESL students could read articles in their native language (if available) and then report on them.
- Students who have difficulty reading can practice with short articles that have pictures or diagrams. Alternatively, those students can listen to news reports and report on them, and discuss them with the rest of the class.
- Reporting or presenting science articles can also take several forms. Students can draw pictures to supplement their explanations. Or they can write a summary using a four part reporting form (a piece of paper folded in quarters), which encourages students who have difficulty writing because they have only a small space to fill.

CONCLUSION:

For students to be scientifically literate, they must establish a link between science in the classroom and water, resource management and protection in the real world. Water in the news helps students make this connection. It takes only a few minutes a day to get students involved in the unfolding events of our times.

Activity based on Sterling, Donna R., "Science in the News". Science Scope. February 1996.

Hints: What to Look for... " In the News"

Seasonal:

- flooding
- spring rain- agriculture; runoff
- alternate water use days in summer or drought periods
- winter water main breaks

General:

- well fields
- contamination
- point source pollution
- non-point source pollution
- quality of water
- water treatment
- bottled water