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SCED 464 Sec. 61

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Lesson Plan

- I. Curricular Area/Topic/Concepts:** Natural Disasters; Earthquakes, Tornadoes, Volcanoes, Tsunamis, and Hurricanes.
- II. Date/Time Frame:** October 13, 2010; Two-day lesson each taking 45 minutes.
- III. Rationale:** Teaching about natural disasters are important because there are several different kinds, and each disaster forms as well as acts in different ways causing dissimilar damages. It is also important for the students to know that natural disasters are not something that can be stopped because of human technology. These are disasters that happen because of the weather and the atmosphere. They are also things that happen everyday around the world and not just in the United States. Weather and natural disasters are all around them in some way or another. The content of this lesson is to have the students know what types of natural disasters there are and to know the general knowledge about them. For example, hurricanes form in the oceans and are usually most damaging because of their high wind speed. Also, when natural disasters come along, it is great to know how to be prepared for them. Society needs to know where to go when disasters like tornadoes come. Again, this lesson plan is important to teach because students need to know about natural disasters and what they can do to be the utmost prepared for them.
- IV. Illinois Learning Standards:**
 - ✓ **State Goal 12:** Understand the fundamental concepts, principles and interconnections of the life, physical and earth/space sciences.
 - **Standard 12.E.2a** Identify and explain natural cycles of the Earth's land, water and atmospheric systems (e.g., rock cycle, water cycle, weather patterns).

- ✓ **State Goal 13:** Understand the relationships among science, technology, and society in historical and contemporary contexts.
 - **Standard 13.B.2a:** Explain how technology is used in science for a variety of purposes (e.g., sample collection, storage and treatment; measurement; data collection, storage and retrieval; communication of information).

V. Objectives:

A. Content Objectives:

1. When this lesson is complete, students will understand what their natural disaster is.
2. After this lesson is finished, students will be able to describe what their natural disaster does and how it causes damage.
3. When this lesson has been taught, students will be able to communicate information about their natural disaster.

B. Math and Science Process Skill Objectives: Communicating and recording and interpreting data are some process skills used in this lesson plan. With communicating, the students are working together in their groups to find answers as well as communicating with the class the information that they have found about their natural disaster. And with recording and interpreting data, the students are doing research on the Internet to find data about their disaster. So, when this lesson is over, students will be able to communicate the information they found orally, as well as be able to conduct research and record that research data.

C. Application Objectives: One can apply these concepts and this lesson to real life because weather is happening all around the world, everyday, at every second. Weather will never be something people can ignore. Also, students will need to learn how to communicate with others whether it is with their classmates or with community members. Also, students will need to know how to do research on the computer. As their educational career continues, the students will be doing more and more research about various topics.

D. Unifying Concepts: The unifying concepts this lesson portrays are consistency, change, and measurement. With consistency all natural disasters will stay the same. The main parts of them will never be different, like hurricanes always happening in the oceans. With change, natural disasters are never the same twice. Each disaster is always different in direction, speed, etc. And with measurement, each natural disaster causes different destruction each time. Also, how big the disaster is, some can become very large while other stay small. Another unifying concept with this lesson is form; all natural disasters have the same form each time they happen. For example, tornadoes will always twirl from the sky and hurricanes will always have an eye.

VI. Materials/Resources/Technology: The materials needed for this lesson plan are the website address the students will use to look up information on their natural disaster, which is, <http://www.fema.gov/kids/dizarea.htm>, at least five computers, Internet access, four copies of each worksheet equalizing twenty worksheets total, pencils, a copy of each answer key to the worksheet, and five copies of the presentation rubric, one for each group.

VII. Management/Organization: The organization that this lesson takes is having all of the worksheets and rubrics printed off before the students get to class, the website known for the students to access the website, as well as the class split up into five groups of four. Another big thing that needs to be managed before the lesson begins is to make sure that the school has Internet access and that at least five computers are working.

VIII. Lesson Delivery:

A. Key Questions: One key question I will ask first is, if the students know what natural disasters are and what they consist of. Then I will lead the class in an open discussion about natural disasters and what they think that they are.

B. Introduction: I will activate prior knowledge by asking the students if they have ever seen or been through a natural disaster. I will ask the students what kinds of things they saw or what kinds of things happened during that

natural disaster. I will then explain that today we will be learning and doing some research on natural disasters, which include tornadoes, hurricanes, tsunamis, volcanoes, and earthquakes.

C. Clarify Purpose/Objectives: The purpose of this lesson is for the students to understand about natural disasters and how they work individually. I want the students to know how their natural disaster works and the type of damage that it can cause to humans as well as society. I also want the students to be able to verbally communicate about their natural disaster so everyone in the class can learn a little about each disaster.

D. Teacher Procedures:

- **Instruction and Modeling:** For this part I will explain to the students what I want them to do and what is expected of them. I will tell them that they will be given a website that has to do with natural disasters. And on this website it will give specific information about their specific natural disaster. All they have to do is click on their natural disaster logo and read the information provided. I will tell them that they need to read the information on the website and then fill out the ten questions on their worksheet that deal with their natural disaster and their natural disaster only. Then I will explain that after their worksheet is complete the students with their groups will get in front of the class and tell about their natural disaster and what they learned.
- **Guided Practice:** For guided practice, I will actually go to the website and read about a natural disasters that the students will not learn about. I will read the information as a whole and then answer a question about it. This way the students will understand how to fill out the worksheet.
- **Checking for Understanding:** To check for understanding, I will ask the students to give me a run through orally about what they are going to do. And during their explanation, I will ask questions like, “What do you do first, read or answer the questions?” and “How many questions

are you going to answer?” With their responses, it will let me know if I need to provide another example or let them get started on their own.

- **Student Practice:** For this, the students will be allowed to go to their own computer with their group. The students will then go to the website that is assigned to them and read the information provided. Once all the information has been read, the students will answer the ten questions on their worksheet. They can use the information from the website to help answer the questions.

E. Student Procedures: In this lesson, the students will be split up into five groups of four and doing research on a particular natural disaster. And these natural disasters include, tornadoes, hurricanes, tsunamis, volcanoes, and earthquakes. The students will use a website that the teacher will provide for them to look up information and to fill out a worksheet. After this has been completed, the students in their groups will get up in front of the class and tell a little bit about their natural disaster.

F. Discussion Questions: Some of the questions I will ask the students are follow up questions on their research and worksheet. I will ask the students how accessing the website went, how filling out and answering all the questions on the worksheet went, and how easy or hard it was to find those answers to the worksheet. I will also ask each individual group certain questions about their natural disaster. For example, “Do volcanoes erupt in every state in the United States?” and “Do tornadoes usually happen during the winter time?” With these questions about their natural disaster will tell me if they received the full benefit of this lesson.

G. Application: The students will be able to apply what they have learned by deciding whether or not they need to prepare for natural disasters. Students will be able to watch the news or listen to a weather radio and know what natural disaster they are talking about and how to prepare for it. This is information they will be using throughout their entire lives no matter where their lives lead them.

H. Closure: To close this lesson, I want the students and the groups to be able to give me a big summary of everything that they learned. Whether it is from just their natural disaster or from another group's natural disaster. I want the students to understand that all natural disasters are different and they happen all the time throughout the entire world. I also want the students to realize that natural disasters will never go away and it will be something they have to be prepared for.

IX. Assessment: For this assessment, the groups will be given a worksheet to fill out while looking up information on their specific natural disaster. Each of the worksheets will have ten questions each all worth one point. Please see attached sheet for more details. The groups will also be graded on their group presentation over their natural disaster. The students will give the answers to their worksheet to the entire class and will be graded on how they do so. The presentation will be worth fifteen points. Please see attached rubric for more details.

X. Accommodating Individual Learners: For students who are learning English as their second language, I would give them pictures to look at during the research process so they will become familiar with what the natural disasters look like as well as their names. I would also make accommodations for struggling students by being a little more lenient on grading their worksheet. These students do not have to answer all the questions on their worksheet, just as long as most of them are answered.

XI. Extending the Lesson: To extend this lesson, I would have the students make a poster of their natural disaster. The students can draw a picture of their natural disaster as well as color it and put information on it. But, this information will have to be facts about their disaster, and it will have to be looked up on another website. This gives the students more research techniques in the future as well as information on their disaster.

XII. Integrations: The integrations in my lesson are reading and using technology. In my lesson the students have to read the information on the website I will give to them to find the information needed to fill out the worksheet. Also, the students are learning to use technology and research skills with this lesson.