

INSPIRE GK12 Lesson Plan



Lesson Title	Natural Disasters: How Do They Impact Us?
Length of Lesson	One (50 minute) class period
Created By	Rob Thornton, Will McBryde
Subject	Earth Science
Grade Level	8 th grade
State Standards	8 th : 1c,f (Inquiry); 4 (Earth Science)
DOK Level	DOK 3
DOK Application	Investigating, Cite Evidence, Explain Phenomena in Terms of Concepts
National Standards	5-8: A (Inquiry); D (Earth/Space); E (Technology)
Graduate Research Element	Agriculture is dependent on water from climate and groundwater, which can both be adversely affected by natural hazards.

Student Learning Goal:

MS 8th Grade:

1(c) Students will summarize data to show the cause and effect relationship between qualitative and quantitative observations (e.g internet). 1(f) Develop a logical argument to explain why perfectly designed solutions do not exist. 4 Describe the Earth's System in terms of structure, composition and climate.

National Science Education Standards of Content 5-8:

A: Inquiry: Abilities necessary to do scientific inquiry; Understandings about scientific inquiry. Capture activity will have students work in small groups (teamwork) making a concept map with a natural hazard assigned to each group.

D: Earth/Space: Structure of the earth system: Natural hazards will be reviewed due to a previous lesson detailing their causes. PowerPoint lecture will highlight natural hazards and their effects on humans.

E: Technology: Understandings about science and technology: Activity after lecture will have students look for current natural hazards using the internet. In small groups, students will visit websites that contain current natural hazard information.

Materials Needed (supplies, hand-outs, resources):

PowerPoint file (INSPIRE_Thornton_07.28.10_PP); laptop; projector; colored paper or posters; pens/markers; laptops for student groups to use

Lesson Performance Task/Assessment:

Performance Task:

Students will brainstorm and create concept maps with hazard teacher has assigned different groups. This will foster teamwork and also see what students already know



about natural hazards. Next, students will view a PowerPoint lecture covering hazards and their impacts on humans. This will demonstrate to students how humans are affected. Groups will assemble again to locate current hazards using the internet. This will enable students to use computer technology and discover current natural hazards.

Assessment:

Formative:

Observing the students as they construct concept maps and checking the concept maps. Also, observing the students while they use the internet to locate active hazards in the U.S. or around world.

Lesson Relevance to Performance Task and Students:

The lesson and tasks will have students think about impacts of natural hazards on humans and the environment. Students will also be able to identify current natural hazards around the world.

Anticipatory Set/Capture Interest:

In small groups, students will be assigned a natural hazard and will be asked to do a concept map on that hazard. Students will draw lines from the hazard on a poster and list the impacts to humans and the environment.

Guided Practice:

Provide student groups with posters and pens used to make the concept maps. Direct students to make concept maps and share with the class; PowerPoint presentation on hazards; Students will again be directed to get into groups to use the internet in order to locate current natural hazards globally.

Independent Practice:

Students will make concept maps in groups; Students will locate current natural hazards going on around the world. The sites used for the internet include: usgs.gov, weather.com

Remediation and/or Enrichment:

Remediation – Individual IEP; Make PowerPoint presentation available to resource teacher.

Enrichment- As homework, have students identify current news reports of world-wide natural hazards in the media.

Check(s) for Understanding:

Observation of students during activities; completed concept maps and current hazards list

Closure:

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Ask students questions and provide opportunity for them to ask questions.

Question 1: Explain which hazards may affect Mississippi and why?

Question 2: Identify websites where you can find natural hazards.

Possible Alternate Subject Integrations:

History; Journalism

Teacher Notes:

Laptops will be checked out from school library, but could be done in computer lab or with teacher's computer for the class as a whole.

Internet resources for natural hazards:

<http://perilousplanet.com/>

<http://earthobservatory.nasa.gov/NaturalHazards/>