

INSPIRE GK12 Lesson Plan



Lesson Title	Pressure and Weather
Length of Lesson	One (50 minute) class period
Created By	Rob Thornton
Subject	Earth Science
Grade Level	8 th grade
State Standards	8 th : 1b, (Inquiry); 4c, (Earth Science)
DOK Level	DOK 3
DOK Application	Define, Hypothesize, Explain Phenomena in Terms of Concepts
National Standards	5-8: A (Inquiry); D (Earth/Space)
Graduate Research Element	Understanding pressure and how it affects weather is an important concept to know, especially for further study in meteorology.

Student Learning Goal:

MS 8th Grade:

1(b) Make inferences based on observations 4(c) Describe how meteorologists use atmospheric features and technology to predict the weather.

National Science Education Standards of Content 5-8:

A: Inquiry: Understandings about scientific inquiry

D: Earth and Space Science: Structure of the Earth's System

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

PowerPoint file (INSPIRE_Thornton_05.01.11_PP); laptop; projector; Smartboard.

Lesson Performance Task/Assessment:

The instructor will lecture, observe, ask, and answer questions regarding the lesson. Students could also be directed to take notes on any of the slides the instructor feels are noteworthy.

Lesson Relevance to Performance Task and Students:

The PowerPoint lecture will give students details on the weather element of pressure, how it is measured and its importance to weather forecasting. Students will also understand the importance of pressure and its application to everyday life. This will help students to understand pressure when they see it in a TV weathercast or other weather presentation.

Anticipatory Set/Capture Interest:

A short video on weather can be shown at the beginning of class. After the video, a quiz can be taken as a group. See www.brainpop.com



BrainPOP is a resource that provides concise videos and quizzes on a variety of science topics. Below is a link to a short video on weather.

<http://www.brainpop.com/science/weather/weather/>

Guided Practice:

The students will observe a PowerPoint lecture on pressure. Students will be asked questions throughout the lecture regarding pressure and its importance to weather.

Independent Practice:

Students will observe a PowerPoint lecture on weather and pressure.

Remediation and/or Enrichment:

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

Enrichment- Have the students get the barometric pressure for each day for one week. In addition, they will also record the weather for each day as well. For example, the student could write down if it were sunny, windy, humid, hot, cold or cloudy. This is just a way for them to describe the weather. Then, the students can bring the observations back to class. The instructor could then lead a discussion on whether or not the pressure matches the type weather the students recorded.

Check(s) for Understanding:

Observe students during lecture and ask them questions.

Closure:

Ask students questions.

Question 1: What is air pressure?

Question 2: Why is pressure important to wind?

Possible Alternate Subject Integrations:

Chemistry, Physics

Teacher Notes

A website for weather basics...

<http://www.eo.ucar.edu/basics/index.html>

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