

INSPIRE GK12 Lesson Plan



Lesson Title	Weather Forecasting Basics
Length of Lesson	One (50 minute) class period
Created By	Will McBryde, Rob Thornton
Subject	Earth Science
Grade Level	8 th grade
State Standards	8 th : 1b,d (Inquiry); 4c, (Earth Science)
DOK Level	DOK 4
DOK Application	Synthesize, Apply Concepts, Analyze, Investigate, Identify, Predict, Interpret, Infer
National Standards	5-8: A (Inquiry); D (Earth/Space)
Graduate Research Element	The application of weather vocabulary into diagrams and schematics is how abstract concepts meet real world scenarios.

Student Learning Goal:

MS 8th Grade:

1(b) Make inferences based on observations (d) analyze evidence that is used to form explanations and draw conclusions 4(c) Examine weather forecasting and describe how meteorologists use atmospheric features and technology to predict the weather. The students will learn about interpreting weather maps.

National Science Education Standards of Content 5-8:

A: Inquiry: Understandings about scientific inquiry (read/interpret weather maps)

D: Earth and Space Science: Structure of the Earth's System (quantifying meteorological processes into graphs / schematics)

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

Handout (INSPIRE_McBryde_11.15.10_Handout); Dry Erase Board (Chalk Board) and Marker (Chalk), Middle School Science Textbook, Computer, Projector, Internet Access

Lesson Performance Task/Assessment:

The instructor will lead a class session where students participate verbally through reading aloud in the science textbook (a chapter on weather forecasting) and answering questions prompted by the instructor. Instructor will proceed through the chapter in this manner teaching the concepts and figures verbally and visually (through drawing on the board). Example: Instructor draws weather symbols on the board and asks the students to tell what they mean.



Lesson Relevance to Performance Task and Students:

Weather is occurring 24 hours a day 7 days a week. It is important for students to understand how to read diagrams and weather maps to interpret the weather. This is a skill that students can use throughout their life.

Anticipatory Set/Capture Interest:

Show current weather maps and/or current weather reports from local meteorologists via internet webcasts.

Guided Practice:

The instructor will lead the readings and select the students to read. The instructor will also field/answer/ask questions that the students may have in regards to the subject matter.

Independent Practice:

The students will read aloud one at a time as the instructor calls on them. The students will also answer questions asked by the instructor. The students will also fill out the handout sheet (INSPIRE_McBryde_11.15.10_Handout). The instruction on the handout sheet asks simple questions about a weather map that is provided on the sheet.

Remediation and/or Enrichment:

Remediation – Individual IEP

Enrichment- Have students give their own weather forecast by using local data.

Check(s) for Understanding:

Observe students during lecture and ask them questions.

Closure:

Ask students questions.

Question 1: What are the symbols for the cold front on a weather map? Warm front?

Question 2: What are isobars? Isotherms?

Possible Alternate Subject Integrations:

Math, Physics, Computer Science

Teacher Notes:

www.weather.gov and additional local television websites. This lesson is a very fluid lesson with great flexibility for the lecturer to focus on the students needs as they teach through their local textbook.