Lesson Title	Who Wants to be a Meteorologist?
Length of Lesson	One (50 minute) class period
Created By	Bo Cherry
Subject	General Science
Grade Level	7th grade
State Standards	7th: 1 b (Inquiry); 4 h (Earth and Space Science)
DOK Level	DOK 3
DOK Application	Distinguish, Classify, Separate
National Standards	5-8: A (Inquiry); D (Earth and Space Science)
Graduate Research Element	The water cycle, which is discussed numerous times in this lesson, plays an integral part in hydrologic research. Also, gases in the atmosphere contribute both nitrogen and phosphorus to surface waters, leading to eutrophication

Student Learning Goal:
MS 7th Grade:
(Inquiry) 1 (b) Discriminate among observations, inferences, and predictions. (DOK 2); (Earth and Space Science) 4 (h) Predict weather events by analyzing clouds, weather maps, satellites, and various data. (DOK 3)

National Science Education Standards of Content 5-8:
(Inquiry) 5-8(A) Abilities necessary to do scientific inquiry, Develop descriptions, explanations, predictions, and models using evidence; (Earth & Space Science) (D) Structure of the Earth System

Materials Needed (supplies, hand-outs, resources)
Computer, Projecter, Powerpoint (INSPIRE_Cherry_PP_02_15_12), Scoresheet (INSPIRE_Cherry_Scoresheet_02_15_12), white boards, dry erase markers, tissues (or other eraser)

Lesson Performance Task/Assessment:
This lesson is based on the television series "Who wants to be a Millionaire?" During this lesson, students will form small groups and work as teams to answer the most questions correctly and accumulate the most money. The questions become more difficult as the game progresses. The game begins with mostly multiple choice questions, but later transitions into short answer questions. Several questions also require the sketching of things related to meteorology.

Lesson Relevance to Performance Task and Students:
This lesson can serve as a review of several aspects of meteorology. Topics included in this lesson are: the water cycle, cloud formation, cloud identification, movement of weather masses, and meteorological forecasting. The use of team work will also improve student communication skills, as students will have to discuss the question and decide as a team on the correct answer.

Anticipatory Set/Capture Interest:
This lesson will capture the students' interest because it is considered a "game." Also, the idea that they are accumulating "money" throughout the game will hold their interest. Lastly, the use of individual white boards gives the students something tangible to do during the game. The boards should be passed around the teams so all students have a chance to write the answers.

Guided Practice:
This lesson is guided as the instructor leads the game, reading each question along the way. The instructor should also be sure to discuss any question if any team gives an incorrect response. This is important as the entire class may not have understood the correct response.

Independent Practice:
All students will have an opportunity to discuss each question amongst their teams in order to come up with the correct response. Also, teams are required to sketch the water cycle, and give other short answer responses.

Remediation and/or Enrichment:
Remediation - Individual IEP; Allow students to study notes before starting the game.

Enrichment - Have the students think of questions and answers for the game with next year's class. This will let the students feel like they are a part of the planning, while making them think about things that were not covered on the game.

Check(s) for Understanding:
Observation of students' participation during the Powerpoint will serve as formative feedback for the instructor. Summative feedback can come directly from the amount of "money" the students acquire throughout the game. Noting what questions students often got wrong will help guide future lessons.

Closure:
Question 1: What is the driving force for all weather (and water cycle)?

Question 2: Define alto-, strato-, and cirro-.

Possible Alternate Subject Integrations:
Earth Science

Teacher Notes:
If the instructor cannot keep score, have one student volunteer keep track of scores. Add up all correct answers at the end of game, and have some sort of prize for the winning team. For easy scoring, use the score sheet and mark *only* the answers that each team gets wrong. If discipline is an issue, deduct "money" from unruly teams.