

Lesson Description: Lesson 9

Wacky Weather: Begin Culminating Project

This lesson will begin the wrap-up of the weather unit. All of the lessons and activities that have been covered thus far will be drawn on for students to complete the final project in the PBL. Students will create a "Weather Broadcast" by continuing their look at how meteorologists predict and report on the weather.

Outcomes



Resources



Procedure



Assessments



Grade: 5
Subject: Science
Unit: Predicting the Weather

Driving Questions: *How do we predict the Weather?*



Curriculum Outcomes:

Science:

Properties of Air

- 300-14 describe situations demonstrating that air takes up space, has mass, and expands when heated
- 105-2 describe how studies of the depletion of the ozone layer, global warming, and the increase identify and use weather-related folklore to predict weather
- 104-7, 204-8, 205-4, 205-10, 205-7, 300-13 using correct names of weather instruments, construct and use instruments to record temperature, wind speed, wind direction, and precipitation
- 104-4, 206-1 Identify, classify, and compare clouds
- 107-14, 205-8, 302-11 using a variety of sources, gather information to describe the key features of weather systems and identify weather-related technological innovations and products that have been developed by cultures in response to weather conditions

English Language Arts:

- 1.3 Explain and support personal ideas and opinions. Respond personally and with

developing critical awareness to a range of print, media, and electronic resources.

- 7.1 Use their background knowledge to question and analyze information presented visually and in print.
- 7.3 Identify instances where language is used to entertain, manipulate, persuade or control them.
- 7.3 Listen critically to others ideas, opinions and points of view.
- 8.3 Make deliberate language choices appropriate to purpose, audience and form.
- 9.1 Create written and media texts collaboratively and independently and in different modes (expressive) and forms.

- 9.3 Invite responses to early drafts of their media productions and use audience reaction to help shape subsequent drafts.

- 10.3 Use technology with increasing proficiency to create, revise, edit and publish.

- 10.5 Select, organize and combine relevant information, from three or more sources to construct and communicate meaning.

Technology Integration:

- BOC 3.2 Use a range of appropriate equipment, computer technology, and software to plan and create multimedia works that contain pictures, words, and sound to tell a story or report the results of their learning.
- BOC 3.4 Locate relevant information by using the appropriate organizational features of and search strategies applicable to books, other print, audio CDs, videos, computer software, multimedia, and the Internet.

Visual Arts:

- 2.1 Work independently and collaboratively to apply learned skills.

- 5.1 Express through their artwork personal ideas and points of view.

- 6.2.1 Examine the role of media and discuss its impact upon their lives.

Mathematics: (Students are encouraged to make these connections but it is not necessary)

- F2 use pictographs and bar graphs to display and interpret data
- F4 create and interpret line graphs
- F6 recognize and explain the effect of certain changes in data on the mean of that data
- F7 explore relevant issues for which data collection assists in reaching conclusions
- G2 determine simple theoretical probabilities and use fractions to describe them

Expected Time: 105 minutes (3 x 35 minute class periods)



Resources:

- Screen cast: [“Using Storyboard That!”](#)
- Chroma-key backgrounds (If needed)
- [Screen cast: Tech Tutorials on Pinnacle 17](#)
- [Assessment Rubric for the Weather Broadcast](#)
- [Student outcomes checklist for key outcomes from the broadcast](#)



Lesson Procedure

21st century skills

Wacky Weather Broadcast Introduction

Lesson 9: Teacher Does (10 Minutes)

We don't want to take too much time on introductions today giving as much time as possible for the students to get to work on their weather projects as this will be time consuming. Keep having the students refer back to the “Tech Tutorials” for trouble shooting video issues. Make sure they are familiar with what is covered here so they are not asking questions about information that is already covered here. These contain important lessons on operating the video equipment, green screen and Pinnacle 17 editor. If the students choose to use iPads and iMovie that is okay as well as long as they are aware that the version of iMovie on the tablets does not support green screen work. (Something used extensively in today's weather broadcasts)

As a work-around students may wish to do the green screen portion on Pinnacle and then plug in their tablets to the computer and transfer the green screen portion to the iPads camera roll for use in their iMovie production.

Another possibility iPad tablet users may want to try a free app from the app store called "Veescape Live" as it does is supposed to do green screen work.

To the students: We will be working towards creating a TV style weather report over the next several days. This should involve pulling all your data together creating charts, graphs (cross curricular connection with the Data Management Unit in Math) As the students get ready to begin the culminating project they should consider all the questions they have asked and answered throughout the unit to this point.

- find, validate
- remember, understand

<p>Questions students should keep in mind:</p> <ul style="list-style-type: none"> - What factors make the weather change? - What methods should we use for predicting the weather? - In what ways does weather affect our lives? - What conditions create weather? - What makes the weather so difficult to predict? - Why can the weather change so suddenly? - What makes different kinds of weather? - How and why do people study weather? - Why aren't weather forecasts always right? (Probabilities: G2 determine simple theoretical probabilities and use fractions to describe them) - How do people use weather forecasts? 	
<p>Wacky Weather Broadcast Planning Lesson 9: Group work (we do) (90 Minutes)</p> <p>Students will now have to plan, write, film and edit a weather forecast/broadcast. After the small group has created a script they will have to make a storyboard using Storyboard that. The story boards will be marked and will compose the ending of this particular lesson. The next lesson 10 will deal with the actual filming and presentation of the weather broadcasts. That being said the line between this lesson and lesson #10 can be blurred as certain groups will be finished the planning ahead of others and ready to move ahead to Lesson #10 and filming.</p> <p>All storyboards and scripts have to be completed and approved by teacher prior to students filming.</p> <ol style="list-style-type: none"> 1. Provide students with time to research current weather conditions and anticipated fronts, etc. in the Canadian city of their choice. 2. Ask students to independently record their predictions for the next three days weather based on the information they have gathered. Have students explain their reasoning next to each prediction. 3. In their group of four students will need to divide tasks to create their broadcast. All the students in the group will assist in all aspects of the production to some degree. These are department heads. (So to speak) <p><u>Student positions on the broadcast team</u></p> <ul style="list-style-type: none"> - Head of Forecasting: this person will go through the individual weather predictions and determine the group's prediction based on majority. Then, they will write up the prediction facts that will be shared in the forecast and distribute them to the other three group members. 	<ul style="list-style-type: none"> <input type="checkbox"/> find, validate <input type="checkbox"/> remember, understand <input type="checkbox"/> collaborate, communicate <input type="checkbox"/> analyze, synthesize <input type="checkbox"/> critical thinking <input type="checkbox"/> evaluate, leverage <input type="checkbox"/> create, publish <input type="checkbox"/> citizenship

- Head of Script-writing: This person will write the actual script for the broadcast and insert the facts provided by the forecast person. You may want to have this person view an additional weather broadcast off which to model their script.

- Head of Technology: This person will be responsible for the filming of the broadcast, but also for making a digital visual display to accompany the broadcast (for example, a power point slide show or green screen effects) as well as editing the video.

-Head of Design: This person will be responsible for creating the set including large maps of the area with weather symbols based on the information from the forecast person. The head of design may want to rerun the edHeads activity from the previous lessons in order to refresh their understanding of how to use symbols on a map for reporting the weather.

Wacky Weather Planning Wrap-up

Lesson 9: Class Share (we share) (5 Minutes)

Bring the students back together as a class after their planning session. Discuss and troubleshoot what went wrong, what could have gone better and what needs to be done in order to get filming tomorrow. (Props, costuming etc....) Invite groups or individual students to remain after class if they student need to discuss issues or the direction in which they are moving.

- collaborate, communicate
- analyze, synthesize
- critical thinking
- citizenship

Differentiation/Modification/Enrichment:

- The use of special effects in the weather broadcast such as chroma-key etc... are definitely enrichment areas for students.
- Areas of differentiation would be extending timelines, making sure that weaker students are in groups with stronger ones and reduced expectations.



Assessment:

- Observation and participation in small group and class discussions.
- [Assessment Rubric for the Weather Broadcast](#)
- [Student outcomes checklist for key outcomes from the broadcast](#)

Teacher Reflection:

