



P R O J E C T O V E R V I E W



Name of Project:	Wacky Weather		Duration:	<i>5 Hours</i>
Subject/Course:	<i>Science (Weather Unit)</i>	Grade Level: <i>Five</i>	Teacher(s):	<i>Tony Eisnor</i>
Cross Curricular Connections?	Language Arts Visual Arts Mathematics (Data Management Unit)			
Project Idea Focus of project: Summary description of the issue, challenge, investigation, scenario, or problem.	<p>You are working for ATV news as a behind the scenes meteorologist out of Halifax, Nova Scotia. You have always dreamed of being a big name TV weather person. You hear there are openings at the CBC for frontline meteorologists in 6 major Canadian cities. Halifax, Toronto, Winnipeg, Red Deer, Whitehorse or Vancouver. By means of an interview you are asked to prepare a three day weather forecast for the area of your choice that will include maps, climate graphs, predictions and corny weather jokes. (optional)</p> <p>The challenge will be for students to create/produce and film a weather forecast while investigating and using the different weather instruments in the meteorologist's toolkit to gather weather data and create three 4 minute weather forecasts. (You can include local weather folklore in your report as well.)</p>			
Driving Question	How do we as meteorologists use science to create a TV weather forecast for a public audience?			
GCOs: Grade 5 NS DOE Science Curriculum Link	<p>Students will develop an understanding of the nature of science and technology, of the relationships between science and technology, and of the social and environmental contexts of science and technology.</p> <p>Students will develop the skills required for scientific and technological inquiry, for solving problems, for communicating scientific ideas and results, for working collaboratively, and for making informed decisions.</p> <p>Students will construct knowledge and understandings of concepts in life science, physical science, and Earth and space science and will apply these understandings to interpret, integrate, and extend their knowledge.</p> <p>Students will be encouraged to develop attitudes that support the responsible acquisition and application of scientific and technological knowledge to the mutual benefit of self, society, and the environment.</p>			

SCOs: Grade 5 Science Curriculum

Students will be expected to

105-2 identify and use weather-related folklore to predict weather

105-1 identify examples of weather phenomena that are currently being studied

106-4 describe how studies of the depletion of the ozone layer, global warming, and the increase in acid rain have led to new innovations and stricter regulations on emissions from cars, factories, and other polluting technologies

104-4, 206-1 identify, classify, and compare clouds

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

07-14, 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

300-14 describe situations demonstrating that air takes up space, has mass, and expands when heated

301-13 relate the constant circulation of water on Earth to processes of evaporation, condensation, and precipitation

THE 4 Cs

21st Century Competencies to be taught and assessed:

Collaboration : Students will collaborate with each other within their groups of 4 to produce the Weather Reports. Lesson 6 (What Makes Weather) is a Jigsaw activity that students will have to collaborate on to teach to one another as well as become experts in their topics.

Creativity & Innovation: Creation of the final product (Culminating activity) Students can present their weather broadcast in a variety of styles. Lesson 3 (Construction of their own Weather Station) creating a weather station.

Communication (Oral Presentation) Filming and viewing of weather reports by other classes and the public/parents through the school website.

Critical Thinking
Analyzing and interpreting weather data and observations through their weather journals and presenting that information in their Weather Forecasts.

Major Products & Performances

Group:

In a small group of 4 students the group will collaborate to use technology to create a three day (television style) weather forecast to another class.

Presentation Audience

X Class: 5 Shaw and 5 Getson

			School:
			Community
	Individual:	Individual responsibilities will be outlined by the students in their "Forecasting the Weather Contract." They can include among other things, filming, graphing, editing, gathering data from various sources, creating weather instruments and interviewing older members of the community about weather folklore and the science behind it.	X Experts: Skype call to meteorologist. Interviews about weather folklore.
			Web: http://grade5eisnor.weebly.com/weather-pbl-project.html
			Other:

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<p>Entry Event to launch inquiry and engage students:</p>	<p>Have the students watch the video: "The Ultimate Guide Extreme Weather" (On the 5Eisnor Class Moodle) After watching the video students should come up with questions that reflect what they will need to know to make their forecast. Sample questions:</p> <ol style="list-style-type: none"> 1) How are we going to compare weather data using graphs, pictures, video and narrative? 2) Who can we talk to that would be an expert to interview? 3) How will we observe and record weather conditions including temperature, cloud cover and precipitation? 4) How do we build weather instruments? 5) How do weather conditions occur and how can we predict them? 6) How does weather affect our daily lives and the choices we make about clothing, activities, food, transportation, and mood? 7) How will we use our knowledge of weather to create a television weather broadcast? 8) What are the components of weather and how do they affect us: temperature, air pressure and humidity? 9) How do we go about creating a weather journal?
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Manage the Process

The Lessons below are all hyperlinked to online MS Word files:

[Lesson 1: Entry Event \(60 minutes\)](#)

[Lesson 2: Forecasting the Weather Webquest \(Will help students learn weather terminology\) \(60 minutes\)](#)

[Lesson 3: “Build Your Own Weather Station” Student groups will construct their own weather stations from which they can gather data for their culminating project. \(60 minutes\)](#)

[Lesson 4: Introduce Weather Journals: “My Weather Journal”. \(60 minutes\)](#)

[Lesson 5: The Weather and Me \(60 minutes\)](#)

[Lesson 6: What makes the weather? \(Jigsaw Activity\) \(60 minutes\)](#)

[Lesson 7: Predicting the Weather and watching a weather broadcast \(60 minutes\)](#)

[Lesson 8: Wacky Weather: Begin Culminating Project Scripting, storyboarding and consolidating information \(60 minutes\)](#)

[Lesson 9: Film and edit the “weather broadcast.” \(60 minutes\)](#)

[Lesson 10: View, present and access weather broadcasts to the other grade five classes and reflect and access activity. \(60 minutes\)](#)

Assessments

Formative Assessments (During Project)	Descriptive Feedback (teacher/peer conferencing)		Practice Presentations		
	Weather Journal		Notes		
	Preliminary Plans/Outlines/Prototypes/Brainstorming		Checklists		
	Rough Drafts		Concept Maps		
	Summative Assessments (End of Project)	Written Product(s), with rubric:		Other Product(s) or Performance(s), with rubric:	
		Oral Presentation, with rubric		Peer Evaluation http://www-tc.pbs.org/now/classroom/peer2.pdf	

Teacher- Evaluation (21st Century Rubrics)

Self-Assessment

http://www.ascd.org/ASCD/images/publications/books/fisher2007_fig5.3.gif

Resources Needed

On-site people, facilities:

Equipment:

Materials:

Community resources:

Reflection Methods

(Individual, Group, and/or Whole Class)

Journal/Learning Log

Focus Group

Whole-Class Discussion

Fishbowl Discussion

Survey
(Based on:)

Other: Self Reflection

**Sources Used
Bibliographic
References**

http://www.epals.com/projects/info.aspx?divid=Weather_Email4)

National Oceanic and Atmospheric Administration (NOAA).

http://bie.org/object/document/self_reflection_on_project_work

http://teacher.scholastic.com/activities/wwatch/investigate/weather_maker.htm