## Pre-Plan

## Product URL: <http://mrsgrahamwebquest.weebly.com/> \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Analysis

Learner Analysis

* The learning environment of the WebQuest is a diverse set of learners in a first grade classroom. The targeted students are 6-7 year old and should be nearing the end of the school year. In order to be ready for the WebQuest, students should have practice navigating the World Wide Web and using it to complete tasks. They must be English-proficient and able to read at or just below grade level. The quest allows multiple opportunities for students to be presented auditory information, but an understanding of the language is necessary. Students must have experience with independent as well as shared learning tasks and must be explicitly taught to follow sequential, multiple step directions. They should be familiar with independent and small group work production and be able to gather data. Students must be familiar with collaboration and sharing responsibility.

Context Analysis

* The class that the WebQuest will be used in has 24 students who all follow the same schedule with the same teacher. The students are instructed by the teacher for each subject, including technology. With the exception of Specials and Lunch, the day is flexible because there is only one student who is pulled out each day for one hour. The classroom environment has 3 working computers for student use, as well as one teacher-owned iPad that students are able to use as appropriate. There is also access to a computer lab and laptop carts from the media center. Students at this age level need a direct model of expectations, so an interactive white board is required to explain the process to students with a visual of expectations.
* The teacher characteristics are such that the teacher must have a basic understanding and feel proficient with integrating technology tools and content knowledge in order to facilitate learning. They must feel comfortable with navigating computers and helping students troubleshoot both basic productivity tools as well as the internet.
* The following standards will be addressed:
	+ **Science**:
		- S1E1.a. Identify different types of weather and the characteristics of each type.
		- S2E1.c. Correlate weather data (temperature, precipitation, sky conditions, and weather events) to seasonal changes.
	+ **Reading:**
		- ELACC1RI10**:**With prompting and support, read prose and poetry of appropriate complexity for grade 1.
		- ELACC1RI2**:** Identify the main topic and retell key details of a text.
	+ **Writing:**
		- ELACC1W6**:**With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.
		- ELACC1W8**:**With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
	+ **Speaking and Listening**:
		- ELACC1SL1**:**Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
		- ELACC1SL4: Describes people, places, things, and events with relevant details, expressing ideas and feelings clearly.
	+ **Technology:**
		- Creativity and Innovation a. Apply existing knowledge to generate new ideas, products, or processes b. Create original works as a means of personal or group expression; 2. Communication and Collaboration a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media, d. Contribute to project teams to produce original works or solve problems; 3. Research and Information Fluency c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks, d. Process data and report results; 6. Technology Operations and Concepts, d. Transfer current knowledge to learning of new technologies; 5. Digital Citizenship a. Advocate and practice safe, legal, and responsible use of information and technology b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity

Task Analysis

* Student Learning Objectives:
	+ Students will present accurate and thorough facts regarding weather data (temperature, precipitation, sky conditions, and weather events).
	+ Students will identify the main topic and provides 2 key details of each season.
	+ Students will design visual that identifies their favorite season and describes its weather characteristics.
	+ Students will present information by making appropriate eye contact and describes people, places, things, and events with relevant details, expressing ideas and feelings clearly.
	+ Students will create a poster that contains creative details and/or descriptions that contribute to the enjoyment of a presentation.
	+ Students will state their opinion about a particular researched season/weather characteristics by typing accurate sentences about the season and why it is the best.
* Dispositional Objectives
	+ The student will work well with their assigned partner and switch roles between ‘note taker’ and ‘director’ effectively.
* Students will be able to answer the following unit essential question:
	+ EQ: How do I apply my knowledge about different types of weather and seasons to express my opinions and create a product?
* Students will answer the following lesson essential questions:
	+ EQ: How do I compare weather data like temperature, precipitation, sky conditions, and weather events to changes in seasons?
	+ EQ**:** How do I identify the main topic and retell key details of a text?
	+ EQ: How do I write an opinion piece?
	+ EQ: How do I describe my favorite season with details, expressing my ideas and feelings clearly?

### Design

**Overview**

* First grade students are being asked to interview for a position of a meteorologist in their morning news program. They will be "interviewing" with the principal for this position. During the interview, they must develop a presentation about their favorite season. They will use the WebQuest to become experts on weather/seasons. During their presentations, students must form an opinion on their favorite season then report the weather/characteristics of that season. They must also create an original poster that helps justify their opinion in the interview.
* The students will learn about Weather and Seasons in this WebQuest. Students will be assigned a partner to work with to research the 4 seasons, beginning with looking at different types of weather and the characteristics of each type. They will create a concept map on [www.bubbl.us](http://www.bubbl.us) to organize their research on these components of weather and identify the main topic and key details in their reading. They will proceed to research the 4 seasons on PebbleGo, correlating the weather data learned to changes that occur as seasons change.  They will keep track of their research on a graphic organizer that they will print and record on. Students will be able to apply that research to design a visual on KidPix that includes words and illustrations about their favorite type of weather and be expected to justify their opinion.  They will also create a Wordle "word cloud" to identify the characteristics of the weather in the season that they chose.  They will work together to apply these printed resources to create a poster about their favorite season and develop a presentation for the interview with the principal. The quest will be designed in an age-appropriate manner, with visuals for students to click to go to their expected resource. Students will be actively using technology to guide their learning. The credits page will appropriately cite the resources from [www.bubbl.us](http://www.bubbl.us), KidPix, [www.wordle.net](http://www.wordle.net), [www.pebblego.com](http://www.pebblego.com) which are the resources that students will use to create products. It will also reference the following websites which are used to enrich student knowledge: <http://www.weatherwizkids.com/> ; [www.fossweb.com/modulesK-2/AirandWeather/activities/whatstheweather.html](http://www.fossweb.com/modulesK-2/AirandWeather/activities/whatstheweather.html) ; <http://www.brainpopjr.com>; <http://www.turtlediary.com/kids-videos/seasons.html>. Credits will also be given to [www.DiscoverySchool.com](http://www.DiscoverySchool.com) as well as [www.pdclipart.org](http://www.pdclipart.org) for clip art images.

**Details**

* Activities within the WebQuest are designed with differentiation in mind, so whenever a task needs to be performed, students have the option of structuring it to meet their needs. If a student needs more support they can use the organizer to assist them thoroughly, but if a student wants a challenge they can structure them based on the style that they analyze information and add more details. As students are utilizing the tool Bubbl.us they can work at their personal level by using their creativity. Differentiation will occur because students who are need a challenge can go above and beyond to create multiple 'bubbles' that build off of each other. Students who need increased levels of support can copy the written work they perform into the bubbles, to merely get used to the concept map idea. Students will be given freedom or structure based on their ability level and needs. As lower level learners are researching on PebbleGo, they can choose the “listening” prompt if the text is too difficult to read. With all the technologies, the students will be given scaffolding as appropriate. Some students may need additional text readings or viewings of videos to understand the content at a deeper level. Therefore, they may demonstrate their knowledge in different ways within the technologies outlined. Partner pairs are grouped based on ability, so higher level students can also provide support for struggling peers. Preferential seating during whole group lessons as well as ability based small groups will provide assistance for the different levels of learners.
* Universal Design (UD) is an approach to the design of all products and environments to be as usable as possible by as many people as possible regardless of age, ability, or situation. I will use these strategies in my WebQuest. Students will have multiple means of representation by being presented information in multiple ways such as audio, visual, and text. Images will have text attached for students with visual needs. Students will be using various web tools to be engaged in content and actively acquiring information so that they can view content in various ways. The quest will provide alternatives using illustrations and images to make the information in text more comprehensible to learners. Pictures of various weather elements will be used instead of text. Students will also have multiple means of response. They will be asked to respond verbally to their partner to encourage collaboration, produce a written graphic organizer, produce a concept web, produce a picture/sentence visual, as well as a computer generated word cloud. These will combine to have students represent their knowledge cumulatively in a creative poster. It allows students to use their strengths to complete the tasks.
* This is an individual assignment designed for small groups and individualized work. Students will first work and collaborate in partner-pairs to refresh knowledge on various weather terms. They will proceed to research together. Next, students will work individually to complete the quest. Video will be used to introduce the quest to the students in the form of a ‘newscast’ from the teacher. Audio will be used to explain content to students to help them navigate due to their age level. Adaptive or assistive technology could be used as a component if necessary. Students who need enlarged prints, headsets, or touch screen computers can have specialized tools to help them learn. Depending on a student’s needs or IEP’s, they may need prompting, direct/one on one support from an adult, etc. to perform the activities. If a student cannot hand-write their graphic organizers they can speak directly into a voice-text program on the iPad, which will help them demonstrate their knowledge.

### Development

* The WebQuest was created in phases, beginning with an initial plan and creation, which took about 10 hours to create. I added and modified information as appropriate, which took a few days to complete. I initially developed the WebQuest on www.weebly.com, then finetuned the overall idea. I used various Microsoft Office tools to make accompanying pages. I spent a great deal of time creating the process, and then added aspects like video and audio later on. I checked the sites to ensure they worked correctly throughout the process. The development went for the most part exactly how I had anticipated in the pre-plan, but just took a little longer than expected.

### Implementation

* For the implementation phase of the project, I utilized the school computer lab as well as a class set of laptops on the school laptop cart. I signed out the cart in advance, planning 6 days for the laptops and one day in the computer lab. I had students work in small collaborative groups within the classroom setting, then individually on laptops when the quest tasks require the student to do so. This required a *great deal* of adult direction and prompting. Students who were less independent didn’t have the ability to problem solve on their own and I felt that a lot of time was taken to trouble shoot technological issues as opposed to engaging in authentic, problem based learning. Major issues also arose as many laptops were not properly working. Fortunately, I had students use our classroom computers and sent them to other first grade classrooms during the process. I sent independent students to do this, because they were more able to sustain the project successfully. As I foresaw, it was difficult for students to “undo” some of their work. When using the site www.bubbl.us, there was a varying level of quality work produced. Modeling expectations really helped the independent learners, but that particular Web2.0 resource was not necessarily the best one. It did, however, help students troubleshoot on their own. Modeling did not alleviate errors, but likely decreased the number of them. I spent the first day introducing how to use the laptop carts and successfully managing the classroom. It was beneficial that this project started off as collaborative partner work because students used their higher abled peers as support. As students were asked to work individually, they tended to fall behind in the quest. I had students present their final project at the end, and they all were customized and unique, based on what students were able to accomplish.
* Strategies used to achieve equitable access to the internet are structured around the fact that the lessons were learner-centered and support high curriculum standards for all students. Students worked in partner pairs while using the classroom computers and each student had the benefit of using a computer in the school Computer Lab. This allowed equal access to technology and did not require students have internet connection at home or work outside of school. I wish that all laptops at our school were fully functioning, and that other teachers did not “check out” laptops for their classroom, making the carts not truly accessible. This is something I have had to come to accept. I will allow coworkers to implement the WebQuest, and they plan on using/implementing the quests in the classroom. I made sure to include implementation tips and differentiation strategies on the Teacher Notes page to help them in this task.

### Evaluation

**Student Learning –**

* Students were responsible for producing a poster about their opinion on a particular season/weather. They were assessed through the use of a rubric that measured their proficiency completing individual events on the quest as well as the poster/presentations. I assessed students were able to demonstrate their knowledge on the topic through an assessment of the artifacts. They were given a 3+, 3, 2, or 1 based on their level of competency. Students presented their posters that explain their opinion during a whole group presentation. As with many aspects of the class, I took take anecdotal notes and give students commentary as the unit progresses, and finalize the grade based on the rubric. I tended to note the things that were positive, because this was a very difficult assignment for my learners and I was impressed with the amount of work they actually did.

**Product Design –**

* I noted if the WebQuest was well designed by taking notes as students completed it. I allowed them to verbally give feedback on it as the process was completed, and in the first grade target, they naturally are great at giving feedback- both positive and negative. Questions I addressed were “Are the directions clearly stated? Do they make sense? Is it easy to understand? Can you read the words? Do you know what you are supposed to do?” Most students clearly helped me with this, and overall a great deal of modeling, step by step directions, and constant support helped them complete the WebQuest. It was not the smoothest process and students did not necessarily meet my high expectations. I ended up not using the rubric, because most students would have gotten a low score. Instead, I gave specific commentary relating to the standards met. This was more effective based on their grade level and age.
* Based on student feedback, I would likely ensure that I had all working laptops to not making accessibility an issue. I would also take out some of the steps and allow more freedom as to what students could choose to do. They would have benefited from less specific steps; however, they were not really ready for independent tasks, so it is a difficult situation to make “perfect”..
* Images of students working on the quest are as follows:

 

* + First graders tend to have difficulty staying on task, and as you can see from the picture of PebbleGo on the right, they were not always on task on their specific learning process during the implementation process.

### Reflection

* Project development: As a result of this project, I learned that technology is engaging and can provide truly authentic learning experiences for students. I learned that quality, standards based, appropriate authentic learning experiences online for students are incredibly time consuming to create. There is a wealth of free (and costly!) services available on the web to use to guide student learning, but the key factor is taking time to create quality resources. It was fun to create and provided an engaging series of lessons for my students. It is very difficult to find quality resources for primary grades such as first grade. Next time I would likely be less ambitious with the quest and keep it simple and user friendly.
* Instructional Design: As a structure for student learning, the WebQuest allowed students to engage in project based learning. As far as what worked well, students worked at their own level and had fun doing so. They enjoyed the change of pace! There are always negative factors to consider, however. As previously mentioned, students had issues accessing the network because of issues out of my control. Laptops were not charging and networks could not be accessed. Work orders were placed months in advance, but the issues were not solved. I modified this project because some students simply could not get it all done. It was very time and labor intensive- so some students only were able to research one season, as opposed to four. The rubric, therefore, changed as a result. I felt like I had to lower my expectations a bit to meet the needs of my learners. The higher learners struggled with the independence and quality work, so I feel like this lesson was more appropriate for a second grade group of learners. Therefore, the students ability level influenced my choices as how to incorporate these multimedia elements. In the future there are likely better choices to have been made in the amount of work to be done. The elements themselves were appropriate.
* Personal Growth: I learned a lot about myself in this project. The students loved it and I really saw a “light bulb” flash as far as what our students should be doing with their learning. It was a great experience for me to see my students so engaged. I find I sometimes have difficulty exciting them and sparking inspiration. This quest definitely did that. I also noticed that I had a lot of frustration. I think I needed to take a step back, a deep breath, and remember that the children are only 6-7 years old at times when I experienced frustration. I also will note that although this particular activity was too difficult for many of my students, activities like this will likely benefit my higher learners for extension in the future. I can incorporate elements learned in this quest to guide my teaching as well as technology facilitation with other teachers at my school.
* For others: Since this project was one that requires students to be independent learners, I would allow students to pick and choose how much they do. It would take too long for all learners to complete each step. Also, students enjoyed the PebbleGo research, but I found that I had some issues with them printing on the laptops because they printed to the Media Center. I ended up just printing graphic organizers for the students and having them take my copy. This also helped save paper because I was able to make double sided copies and have students use two sheets of paper each as opposed to four. I would also enlist the help of parent volunteers or other adults to assist students in their learning process. It required a lot of adults support and guidance.