Kim Bennett

Technology Project

Summer, 2010

1. Technology elements:
   * + 1. Webquest
       2. Video (could be moviemaker or photo story)
       3. Quizdom
       4. Glogster
2. Required Elements:
   1. Audience: 7th grade life science students (gifted and high achieving classes only). Each class has less than 23 students. The setting will be in science classroom. I will “hook” the students by showing a photo-story of different living things in the different areas of the world. Many organisms are camouflaged so student will attempt to “find” them.
   2. Need: This project will focus on the need for students to understand the following state standards:

S7L4 – Students will examine the dependence of organisms on one another and their environments.

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| --- | --- |
|  |  |
| \*Recognize that changes in environmental conditions can affect the  survival of both individuals and entire species. | |
| \*Categorize relationships between organisms that are competitive or  mutually beneficial. | |
| \*Describe the characteristics of Earth’s major terrestrial biomes (i.e.,  tropical rain forest, savanna, temperate, desert, taiga, tundra, and  mountain) and aquatic communities (i.e., freshwater, estuaries, and  marine). | |

1. In order for students to get an overall understanding of all of the biomes they will work in groups of two to complete a “web quest” (*attachment 1*).
2. Once the webquest is complete - students (working in groups of two) will produce a video advertisement or a factual documentary on an assigned biome (total of 8) using Movie Maker or Photo Story. They will be encouraged to incorporate Video Streaming, Brain Pop and the other classroom technology devises to share the exciting elements of their biome. Their video needs to identify the items on *attachment #2*.
3. Students will also create a “glogster” on their biome highlighting the important facts of the biome.
4. Quizdoms will be used daily upon entering class. Each day, students will answer four questions over biome facts they have been learning about throughout the project. This will only take the first five minutes of class every day. This will serve as an assessment of their progress.
5. Technology Effectiveness:
   1. Web-quest: I am going to use a web-quest to provide a self regulated guide through basic facts about all of the biomes that students need to know. The web-quest encourages students to be actively involved in their learning. Students are more motivated when they are “doing” something – not just provided with the information.
   2. Video component: Students will create a video using their choice of moviemaker or photostory. In this digital age – students enjoy working with videos. The nature of biomes really lends itself to great picture stories. The different videos produced will be shared with students so that all students are visually exposed to all of the biomes.
   3. Glogster: Glogster is website used to create unique posters that can also incorporate videos and music. Students enjoy working with this site – because they enjoy it they are motivated to produce nice work.
   4. Quizdoms: Quizdoms is a “voting program” where each students has his/her own hand held devise. They answer quick questions and I can assess their knowledge very quickly. It is a great assessment tool – we can even graph our results. Students enjoy answering questions via quizdom because they don’t have to write.

Reflection - I think by using a variety of technology, I am reaching all learners. Some learners are good at finding information and they will be very successful at the webquest portion of the unit. Lipscomb (2003) indicates that “webquests have the potential to be powerful instruments for teachers interested in using technology in their instruction” (p.153). Other students really let their creativity shine through in creating videos and posters. Some of these technologies will be new to some of the students and they will be excited to create something different in class. These students are all gifted or high achieving students and thrive when permitted to have some different options when completing projects. I am open to different avenues of completing this project – I will be happy to discuss different options on an individual basis.

1. Technology Issues:

One possible technology issue that could be experienced during this project is the

students comfort level with the different types of technology I am asking them to use. I will take time to give an introduction demonstration on each form of technology. Some of the technology used will be items we have already incorporated into class so they should be familiar with some of the technology used in this project. I have a mobile computer lab in my room at all times so students are familiar with laptop rules and procedures. A mobile lab in my classroom at all times is very beneficial to my students. “By taking the advantage of portable technologies such as laptops to establish a pervasive computing environment, students can be empowered to learn with technology anytime, anywhere (Yang, 2002).” In today’s age of digital learning students need this empowerment to be successful in life.

References

Lipscomb, G. (2003). "I Guess It Was Pretty Fun": Using WebQuests in the Middle School Classroom. *Clearing House*, *76*(3), 152-55. Retrieved from ERIC database.

Yang, C. (2002). *Integration of laptops into a k-12 learning environment: A case student of a science teacher in the middle school.* Paper presented at the meeting of the World Conference on Education Multimedia, Hypermedia & Telecommunications, Denver, CO

## Lesson Plan

### Introduction

7th grade life science students will spend two weeks exploring the different biomes of the world. They will know the following about the eight assigned biomes: average temp, average precipitation, location in the world, major types of animals, major plant types, and how these organisms survive and interact with one another.

### Outcomes

Students will know the following about the eight assigned biomes: average temp, average precipitation, location in the world, major types of animals, major plant types, and how these organisms survive and interact with one another. They will also be experts on an assigned biome and will teach the class about this biome.

### Standards

S7L4 – Students will examine the dependence of organisms on one another and their environments.

|  |  |
| --- | --- |
|  |  |
| \*Recognize that changes in environmental conditions can affect the  survival of both individuals and entire species. | |
| \*Categorize relationships between organisms that are competitive or  mutually beneficial. | |
| \*Describe the characteristics of Earth’s major terrestrial biomes (i.e.,  tropical rain forest, savanna, temperate, desert, taiga, tundra, and  mountain) and aquatic communities (i.e., freshwater, estuaries, and  marine). | |

### Resources

**Off-line:** Text book, library books

**Online:**  lap-tops, quizdoms remotes & program, movie-maker program, photo story program, Glogster web site (<http://www.glogster.com/> - poster making website), video streaming website (<http://streaming.discovereducation.com/> - view and download videos), brainpop website ([www.brainpop.com](http://www.brainpop.com) – view and download videos)

**Integration of Technology**

Technology used:

* 1. Web-quest: I am going to use a web-quest to provide a self regulated guide through basic facts about all of the biomes that students need to know. The web-quest encourages students to be actively involved in their learning. Students are more motivated when they are “doing” something – not just provided with the information.
  2. Video component: Students will create a video using their choice of moviemaker or photostory. In this digital age – students enjoy working with videos. The nature of biomes really lends itself to great picture stories. The different videos produced will be shared with students so that all students are visually exposed to all of the biomes.
  3. Glogster: Glogster is website used to create unique posters that can also incorporate videos and music. Students enjoy working with this site – because they enjoy it they are motivated to produce nice work.
  4. Quizdoms: Quizdoms is a “voting program” where each students has his/her own hand held devise. They answer quick questions and I can assess their knowledge very quickly. It is a great assessment tool – we can even graph our results. Students enjoy answering questions via quizdom because they don’t have to write.

Instead of using only our textbook to learn about the different biomes of the world technology will be integrated to bring these areas to life for the students. They will use technology to supplement our textbook and other classroom material. Technology will also be used a vehicle to express what the students learned and will be presented to others to increase their understanding of each biome.

Students will produce the following:

1. A complete webquest survey information sheet.
2. A video advertisement or a factual documentary on an assigned biome using movie maker or photo story
3. A Glogster poster on their assigned biome.

### Materials

lap-tops, quizdoms remotes & program, movie-maker program, photo story program, Glogster web site (<http://www.glogster.com/> - poster making website), video streaming website (<http://streaming.discovereducation.com/> - view and download videos), brainpop website ([www.brainpop.com](http://www.brainpop.com) – view and download videos)

### Process

Preparation:

\* Prepare copies of all attachments

\* Double check that websites links still work correctly

\* Make sure classroom laptops work correctly and all students know their assigned laptop number and quizdom number (they are the same)

\* check out numerous books from the media center on the different biomes

Tips:

\*Turn on laptops during homeroom so they are up and ready when students arrive for class

Daily:

\*Students need to get quizdom and lap top when they enter the classroom.

\* While logging in students should answer the questions on the smartboard using their

quizdoms. This will be used to assess their progress.

\*Check with each group daily and record their progress on the project. Make sure no one get stuck and then becomes behind in their work.

\*Remind students that they can come in early in the morning for extra computer time if needed.

### Assessment

1. The web-quest scavenger will count as a daily grade in class. This information will serve as a study guide for a test over this unit. In addition to information gain from each groups video.
2. The digital component will be assessed using a rubric – we will create it together before we begin the project. See Attachment #3 for an example that we will build from together.
3. The glogster poster will also be assessed using a rubric that we will create together also.
4. The quizdom questions that are answered every day in class will count as a quiz grade. Two questions each day for 10 days = 20 question quiz.
5. A test will be given over all of the biomes at the end of the 2 week period.

### Extensions/Modifications

Modifications for special needs students include the following:

* Project could be shorted if needed – some students may not be required to complete the glogster.
* Some biomes are easier to describe than others – teacher could give easier biomes to these students.
* The number of “required” items in the video could be decreased.
* The test at the end of the unit can be modified by decreasing the answer choices.
* Work in conjunction with resource teachers – in some instances these students can also work on this project in their language arts class.

Extensions:

* Students could research further a few of the environmental factors facing each of these biomes.
* Students may research an organism in danger in their biome. This should its impact on the ecosystem and what could be done to increase its chances of survival.

*Attachment 1*

ECOLOGY/BIOMES

Answer each question by researching and reading the link provided beside each question. You must answer in complete sentences. Once you complete this activity – You may use your extra time exploring the sites provided on this web quest.

1. What is ecology? <http://www.owc.org.mn/econet/html/home.htm>
2. What is symbiosis? <http://www.owc.org.mn/econet/html/symbiosis.htm>

This site mentions 3 types of symbiosis (use the links in the left hand corner for further information about each type)

* + list the three types
  + define each type
  + give an example of each type

1. What are biomes?

<http://www.nceas.ucsb.edu/nceas-web/kids/biomes/what_biomes_are.htm>

1. How many biomes are there?

<http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/B/Biomes.html>

1. Complete the attached chart (*attachment #2*) for 5 different biomes (your choice). You need to use the following websites to research the biomes.

<http://www.teachersfirst.com/lessons/biomes/biomes.html>

<http://www.mbgnet.net/>

<http://www.ucmp.berkeley.edu/exhibits/biomes/index.php>

1. Color the attached world map (*attachment #4*) indicating the different biomes. Be sure to color nicely and create a correct map key.

<http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/B/Biomes.html>

*Attachment 2*

|  |  |
| --- | --- |
| Biome Name: | |
| World Location: | |
| Climate (average annual  temp, seasonal temps,  precipitation) | |
| Other environmental factors  (soil, tides, salinity –  interesting facts) | |
| Plants: Adaptations to environment  1. 1.  2. 2.  3. 3. | |
| Animals Adaptations to environment  1. 1.  2. 2.  3. 3. | |
| Explain who these organisms interact with one another. (think food web) | |
| *Attachment #3*  Biome Video rubric example   |  | | --- | | Teacher Name: **k bennett**    Student Name:     \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |

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| --- | --- | --- | --- | --- |
| CATEGORY | **4** | **3** | **2** | **1** |
| **Requirements** | All requirements on the biome worksheet were included in the project plus you added additional intresting information on your biome. | All requirements are met. | Missing 1-2 of the requirements. | More than three of the requirements were not met. |
| **Attractiveness** | Makes excellent use of font, color, graphics, effects, etc. to enhance the presentation. | Makes good use of font, color, graphics, effects, etc. to enhance to presentation. | Makes use of font, color, graphics, effects, etc. but occasionally these detract from the presentation content. | Use of font, color, graphics, effects etc. but these often distract from the presentaion content. |
| **Mechanics** | No misspellings or grammatical errors. | Three or fewer misspellings and/or mechanical errors. | Four misspellings and/or grammatical errors. | More than 4 errors in spelling or grammar. |
| **Permissions** | All permissions to use graphics "borrowed" from web pages or scanned from books have been requested, received, printed and saved for future reference. | All permissions to use graphics "borrowed" from web pages or scanned from books have been requested and received. | Most permissions to use graphics "borrowed" from web pages or scanned from books have been requested and received. | Permissions were not requested for several graphics "borrowed" from web pages or scanned from books. |
| **Content** | Covers topic in-depth with details and examples. Subject knowledge is excellent. | Includes essential knowledge about the topic. Subject knowledge appears to be good. | Includes essential information about the topic but there are 1-2 factual errors. | Content is minimal OR there are several factual errors. |

*Attachment #4*

[](http://img75.imageshack.us/img75/2116/worldblankbwxl5.jpg)