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ELPS760
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ELPS760 Midterm

A. Constructive Learning Technology

Individual Knowledge Creation

Pollinators: A Multimedia Presentation

Standard: Maryland 3.5.2 - The student will analyze the interrelationships and interdependencies among different organisms and explain how these relationships contribute to the stability of the ecosystem.

The Students: This activity is designed for 3rd graders in Rockville, Maryland, but can be used by any science class, grades 3-5. Students are learning about the plant life cycle, and part of the unit is on pollinations. This activity will expand their knowledge on pollination.

Required Resources: The school has an Internet connection through a firewalled network, and has a computer lab of 30 PCs. Each classroom has two PCs, and the library has six PCs. Every computer is connected to the school's network and runs Windows XP. All computers have Internet browsers and multiple USB ports. The school has two digital cameras and one scanner. Teachers must check out cameras, and students cannot use the scanner without teacher supervision.

The Activity: Students will create a multimedia presentation to describe a type of animal pollinator. Each student will be required to pick one type of pollinator and their presentation must focus on how the animal pollinates plants, what type of plants they pollinate, and how the animal's body enables it to pollinate. The presentation be a PowerPoint slideshow, a video, a website, or an Inspiration/Kidspiration flow chart. Each presentation must include pictures/illustrations, and may include a video, which may be linked to the Internet or embedded within the presentation. The teacher will provide research materials including books from the school library and a list of websites on pollination and pollinators. The teacher will also show a video on pollinators to help with the students' research.

The teacher will have "training sessions" for the different presentation options, where the teacher will demonstrate how to design the specific type of presentation, while having students practice the skills needed to build a presentation as they go along. Students must go to at least one session, but may attend more than one, knowing they will lose out on research time in class. While students work on their presentations in school, the teacher will facilitate their work, but not directly help them when they are putting the presentation together. The students will present to

the class, and each presentation will be uploaded to the class website for parents and others to see. Each presentation will be no longer than 7 minutes.

The project is based on and reflects ideas from the Constructivist learning theory, since the teacher is giving students new knowledge that allows them to construct their presentation, without giving them step-by-step directions.

Questions and Hypotheses: Students will be expected to come up with questions/hypotheses that will determine the direction of their research. Some questions may include:
•How do the animals pollinate flowers?
•How do the plants attract pollinators?
•What season does pollination occur?
•Can the animal pollinate more than one type of plant?

More advanced students may come up with these questions:
•How has the animal adapted to pollinate plants?
•What does the animal eat during winter/non-pollinating seasons?
•What would happen if the pollinator became extinct?

Class Collaborative Learning Activity

A Multimedia Historical Fiction Story

Standards:
NL-ENG.K-12.1 Reading for Perspective - Students read a wide range of print and non-print texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.

NL-ENG.K-12.4 Communication Skills - Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.

The Students: This activity is designed for students in a language arts class in grades 5-8. Students have read stories in the genre of historical fiction and must now create their own story.

Required Resources: This assignment assumes the following:
•The school has Internet connection, and a computer lab with 30 PCs and/or Macs.
•Each classroom has two computers hooked up to the Internet.
•All computers have Internet browsers and USB ports.
•All computers have necessary software to complete the project.
•The school has access to digital still and video cameras, and a scanner.
•Teachers must check out cameras, and supervise use of the scanner.

The Activity: In groups of 3-4, students will write and present their own historical fiction stories. Students will choose a specific, historical time period and then research events that happened during that period to get a better understanding of what was happening at that time. After researching they will develop an original fictional story using the elements of the historical fiction genre. Groups will also have to present their stories to the rest of the class using a multimedia technology. They may create a movie using iMovie or Windows Movie Maker, or a video slideshow using iMovie or PowerPoint that involves an audio track. If they choose to do a slideshow they may choose to draw their own illustrations (and then scan them into a computer) or take their own pictures using a digital camera; using images found on the internet is allowed as long as they are not infringing on any copyrights.

Each group will have one of the following:
Writer – the person who writes/types the story/script.
Director – the person who puts pictures into the slideshow or uploads and edits video on the computer.
Illustrator – the person who draws illustrations, takes pictures, and/or films the project.
Researcher (optional) – the person does most of the researching while the other group members are at "training sessions."

The teacher will have "training sessions" for the different presentation options, where the teacher will demonstrate how to use the specific software/technology, and have interactive lessons where students will practice using the technology. One member of each group must attend the "training session" for the software/technology that the group is planning on using. While students work on their presentations in school, the teacher will facilitate their work, but not directly help them when they are putting the presentation together.

The project is based on and reflects ideas from the Constructivist Learning Theory, since the teacher is giving students new knowledge that allows them to construct their presentation, without giving them step-by-step directions. It is also based on and reflects ideas from the Multiple Intelligences learning theory since there are different jobs that allow students who may have specific interests and/or abilities that they can use in a specific job.

Questions: Students will be expected to come up with questions that will determine the direction of their project. Some questions may include:
•When and where will our story take place?
•How will the time period affect the setting of the story?
•How will the time period and setting affect the actions, dress, and speech of the characters?
•Will we include any historical figures? If so how can we incorporate them into the story?
•What major historical events will we include in our story?

More advanced students may come up with these questions:
•What is the lifestyle of the characters?
•Is the story dependent on being in a specific time period?
•How will the media we use to present our story affect the way we write?

B. Technology vs. Content Knowledge

As a teacher it is important for me to know that I am preparing my students for their lives outside of school. With this in mind I feel that having basic knowledge about information technology and learning content are both necessary. However, I feel that it is more important for students, while in school, to learn and understand the content taught in class than it is for them to learn how to use information technology. If I am a social studies teacher, my job is to teach students about history, geography, economics, sociology, etc., because the class is meant for students to learn about these topics and all of the major ideas and events that are embedded in them. If I teach my students how to use an Internet browser to find the same information, they would simply be reading about the information but they may not understand it as well as if I taught the content to them. To make sure they understand the material teachers ask and answer questions that are tailored to their students, something that technology (at present) does not do. It is the same reason why I chose a graduate program where I had to physically be present in class: while I may gain the same knowledge in an online program, I would likely not gain the same understanding of that knowledge. That, to me is key. The purpose of teaching is not to simply feed students information, but instead it is to teach them about that information so that they may use it in their lives.

Yet, as I mentioned before, I feel that learning about information technology is necessary for all students. I would make sure to incorporate those skills within my lessons, but make sure to keep the focus on the content of the class. Students have a better chance of learning the technology outside of school than they do of understanding the content material, so the focus should stay on the content. Information technology is a great tool to use while learning since it can access so much information and give students an immense amount of knowledge. But without a teacher teaching the content and tailoring it for the students, there is a greater chance that students will not really understand all of the knowledge they have gained, which, in the long run, may be more detrimental to them than not learning how to use informational technology.