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Case Study 1
EDTC 6343.61

Mr. Haddad - 6th Grade Science

Technologies

After meeting with Mr. Haddad and discussing the goals and objectives of his lesson, I would recommend technologies that are appropriate for enhancing his lesson and are able to assist every student. These following technologies are 12 temperature probes, Prezi (a web 2.0 tool) and Spreadsheet software.

Mr. Haddad's students will be able to use 12 temperature probes to keep track of the temperatures in their greenhouse. The temperature probes are digital general-purpose temperature sensors that can be used as thermometers. These are very safe and accurate when measuring temperature. These temperature probes can be used by all students; Mr. Haddad's hearing impaired student will feel safe and enjoy this hands-on activity lesson. Each team/pair will be able to use 1 temperature probe during this science activity.

The spreadsheet software is an excellent tool to record, organize and analyze data from the temperature probes. This software will enrich the lesson for students can create charts and graphs to visualize their findings, come up with conclusions and prepare a report. The temperature probes transfers the temperature data directly to the spreadsheet, so students only need to organize the collected data and analyze it. The hearing impaired student will also be able to use spreadsheet software because there is no sound required used with this software.

For the data presentation Mr. Haddad's students will use Prezi which is a Web 2.0 technology tool. Prezi is excellent presentation application that creates presentations fun and engaging by providing interactive tools such as videos, pictures, links to other websites and texts. This is an appropriate tool for the science project presentation. Students can present their findings by using the created graphs/charts from spreadsheet. They can also add text to narrate and describe their data, results and conclusions to communicate with the whole class. The hearing impaired student

can also participate in presenting to the class with this tool for it is friendly user. Prezi will keep the class engaged during students' presentations.

Those three technologies will assist the students in understanding the interactions between matter and energy.

Planning

I would first meet with Mr. Haddad to discuss his goals for the science project. Then I would start explaining about the technology tools Mr. Haddad would implement in this project.

After discussing ways in implementing these technology tools to enhance his lesson, I would ask Mr. Haddad how capable he feels in using these three technology tools. I would make sure he understands the technology functionality for his lesson. If he doesn't feel confident with these tools, then I would share online tutorials, videos, project samples, and one-to-one instruction to assist him with the technology functionality. We would also discuss the length for this science project so he could accommodate/divide project assignments accordingly to time periods. We would also discuss students' abilities and special needs to better offer support. Then I would start explaining why using temperature probes, Spreadsheet and Prezi are suitable for the hearing impaired student.

Before students start utilizing the technology tools to record, analyze and present data, they have to learn how to use them. For this reason, as an MTT, I would create a web based page in which I would share links, tutorial videos and any other needed assistance to learn to use these technology tools. Also I would also assist Mr. Haddad in creating and using rubrics to evaluate collaborative projects.

I would advise Mr. Haddad to have a backup plan ready for this science project. Technology is awesome but sometimes it just breaks. If things go wrong he should have a plan ready to make sure this project runs smoothly. For example, besides the temperature probes Mrs. Haddad should have regular thermometers ready to use in case one of the digital ones breaks. Also when

recording data on the spreadsheet, have the students save their work every five minutes, in case the laptops/computers shut down. I would suggest the same thing for the presentation tool.

At last, I would highly recommend Mr. Haddad to try the experiment on his own; to build a solar greenhouse himself and follow each step of the project. To use the same technology tools to record temperature, evaluate and present data in order for him to understand the project experiment and show this same project to the students so they can understand teacher's expectations. This will help Mr. Haddad's lesson and project run smoothly by enhancing the student's experiences.

Implementation

Immediately I would give Mr. Haddad my extension number and email address to keep in touch for any questions that might arise before the actual science project.   The day before the lesson I would come after school to his classroom to double check all the laptops/computers, and technology tools, to see if they were set up properly. After school I would go again to his classroom to see how the development of the science project and make any possible changes to adjust or make lesson/project better for the following day.

Technology Evaluation

In order to evaluate the technology used in this science project and my assistance as an MTT, I would meet with Mr. Haddad to discuss it with him. After the science project was over we would talk about good/bad experiences and possible adjustments to be made in the future. For example; how did he and the students feel with the technology used for this project? Were these technology tools essential for the project? Would he use these technology tools again? Is there anything he would change? Why? How can this project be improved? Was the goal met? Did I provide enough support with the technology tools? How can I improve my assistance?
If some goals were not met, I would make changes immediately for future projects.

Enhancement

Prezi, the Web 2.0 technology tool can be used for teacher or student presentation for any class subject. For example, in Reading class the student could create storytelling presentations by using the tools provided in this software; pictures, images, animations, text and videos to illustrate it. Students love working with technology. They will be able to create presentations in which interactive tools are available to keep their audience engaged.