Why Do We Build Bridges and Tunnels?

WebQuest Description: I guess, we are all aware about the problem of congestion around the world! Have you ever wondered how could people overcome the Earth's obstacles? Could building bridges and tunnels solve such a problem in our community and in the whole world?

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Introduction

We all know that the simplest way to get from point A to point B is a straight line, but Earth's varied geography often makes that problematic. Millions of accidents occur around the world everyday with a large number of miserable dead people left behind. Thus, we end up facing the traffic congestion problems on our small country roads. This leaves us with a big problem and an endless amount of questions that we must try to answer. Here arises the Big Question: Why Do We Build Bridges and Tunnels? Could we overcome earth's obstacles by building bridges and tunnels? Are there better ways to solve the congestion problem? What types of bridges and tunnels may help solve the problem with less expenses? These are all questions that will have a huge impact on your life. One day, you all will be making choices that affect our country and our planet so it is important that we learn as much about this situation as we can. Even one person can make a difference!

Tasks

Today you will be learning more about bridges and tunnels, and how building them may facilitate transportation movement in our small country with less economical expense. Your goal will be to gather information in order to be able to form your own opinion on what should be done to deal with the congestion problem. You will be using various internet sites to gain information about different topics dealing with building bridges and tunnels to solve the congestion problem in our country. You will also be answering questions taking some notes that are required and some that you feel are important. Then you'll cooperate with your friends in groups to do the Jigsaw activity. Finally, you will be using this information in order to create a plan for yourself, your family, or your community to try to solve the congestion problem starting from your town. This plan may include several different strategies. The end activity will be for you to complete at home, as home-school connection activity, when you cooperate with your family, friends, or even the town mayor to help solve the congestion problem each in his town to manage it locally, then globally!! Here are some tips to keep in mind as you work:

1. Am I answering the questions as I go?
2. Am I gathering information that will be important for me to know or is interesting to me?
3. Am I looking for ways that my family, my community or I can make a difference?

Process

Activate Prior Knowledge: Work with your partner, in class, to fill in the KWL chart and share ideas about what you already KNOW and what you really WANT to know about the congestion problem in our country, and how we can help solve it locally then globally. While working in groups or searching on the web, you should have a notebook with you. Use one half or side to answer the questions and the other half for notes you feel are important to know or will help you come up with your plan to solve the congestion problem by building bridges and tunnels, and how you can make a difference. After you gather information about what you've LEARNED so far from the above mentioned topics, you share ideas in groups; to complete the KWL chart, as well as, prepare the materials needed for Jigsaw activity to discuss and debate your findings. Before you visit the websites, look at the question you need to answer. When you are searching, you are only looking to answer that question, find interesting information or ideas for your plan to solve traffic jam problem in your town or your community, by building bridges and tunnels. Don't spend too much time at one place. First, watch the video below about "Overcoming Earth's Obstacles". Then, cooperate with your friends in groups to do the Jigsaw activity. Finally, you will be using this information in order to create a plan for yourself, your family, or your community to try to solve the congestion problem starting from your town. This plan may include several different strategies. The end activity will be for you to complete at home, as home-school connection activity, when you cooperate with your family, friends, or even the town mayor to help solve the congestion problem each in his town to manage it locally, then globally!! Here are some tips to keep in mind as you work:

1. Go to the website about "Overcoming Earth's Obstacles" and watch the video before answering the questions.
2. Read the information about building bridges and tunnels and answer the questions.
3. Prepare a plan for your town or your community to solve the congestion problem by building bridges and tunnels.
4. Share your plan with your family or friends.
5. Use the materials you have gathered to complete the KWL chart and prepare for the Jigsaw activity.

For this project you will need to cooperate with your parents and discuss the problem with them, and come up with suitable solutions for the problem. Be sure to write down anything you feel will be useful. Go to the websites and search for additional information. Finally, write a report about your experience and share it with your family and friends.

Go to the file below about home-school connection and try some different games dealing with bridges and tunnels. For this project you will need to cooperate with your parents and discuss the problem with them, and come up with suitable solutions for the problem. Be sure to write down anything you feel will be useful. Go to the the file below to construct games about the unit theme.
During the next class you will need to reflect on your answers to the previous questions and then plan what you will do for the following tasks. Reflect on these and be ready for next week.

A. After you have read many on-line articles, you will need to make a research about your findings when you analyze and evaluate the case in overcoming earth's obstacles, and present the suitable solutions while building bridges or tunnels that may help solve the congestion problem locally and globally.

B. You will also need to come up with an active plan for your school to build a bridge, and be sure it's accomplished successfully. This will need to be signed when you are completed and I will later ask you about your progress.

C. Cooperate with your classmates to construct a suitable bridge that links your main school with the high school building.

D. Write a well-organized Persuasive Letter for your school principal to convince him to help build the bridge between your school and the high school building.

E. Conduct an interview with your school director to ask for help on achieving the same project.

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**Evaluation**

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**Conclusion**

You will be graded on the following criteria:

- (G) Good & Excellent: Participation (5pts) No participation in research and group work activities.
- (P) Participation: Good participation in group work and home assignment present to solve the problem of congestion in your community.
- (E) Excellent: You work hard and effectively at all tasks to find needed information and taking accurate notes.

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**Teacher Page**

This webquest is designed for 12 years old students who who start learning about the importance of building bridges and tunnels to solve congestion problems in their community.

This lesson should be preceded by some activities to assess and perhaps guides students gain some background knowledge in making researches and projects about building bridges and tunnels, as well as, writing persuasive letters to try to solve the congestion problem in their community. It also activates students' critical thinking and cooperative learning skills.

This webquest is highly recommended to be used by teachers to help students practice authentic Reading and Speaking skills in classrooms and in the outside community. It's more suitable as an assignment or project since it may last for an estimated time for about two weeks of class and home work.

Finally, I would like to dedicate such a wonderful work and express my great gratitude to my Educational Technology instructor, Dr. Rasha Khansa, for guiding us to the best teaching strategies to implement in our classes, and providing us with the information needed to create this useful webquest.

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**Reflections:** In fact, I have encountered some difficulties in conducting this lesson in the boys' class while working in groups, but it's normal for a class of 29 boys! So, I tried my best to manage the activity by giving bonus cards and good comments for group members who finish the activity quietly.

In any case, I notice that students were very excited and interested during the activities, since they learned in an amusing way, by interacting with their classmates to acquire the objectives. All students, especially the low achievers and those with various learning
styles, were very motivated to participate in all the activities.