Bridging the Gap

(Science/Math 6/7 Students)

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**Introduction**

Attention Scott Creek Engineering Teams! As you are aware, our community urgently needs an additional bridge linking Coquitlam and Surrey.  Due to the recent growth in population, we have determined that in seven years the existing bridges will be unable to keep up with community development.  City council has invited your team to develop and present a proposal to address our needs.  Please see the following outline to help you with your team presentation.
**Task**

* Investigate area and decide on crossing
* Investigate bridge structures and select a type
* Present a three-D model and convincing argument on the bridge you chose for the crossing

**Process**

        1.    a. Locate Douglas Island using [Mapquest](https://www.google.com/maps/place/Douglas%2BIsland/%4049.2210285%2C-122.805239%2C14z/data%3D%214m5%213m4%211s0x5485d65b77b2d8b1%3A0xf2e3060c2d7a05c7%218m2%213d49.2199454%214d-122.7780269)

               b. Choose your crossing
               c. Write a convincing argument for your proposed crossing

        2.    a.  Research the following link to bridge structures   [How Bridges Work](http://www.howstuffworks.com/bridge.htm)
               b. Use the information from the link provided to complete a **comparative chart**.
               c. Select a type of bridge and write a convincing argument for the type of bridge you

 chose. Use **Bridge Vocabulary** in your essay.
               d. Build a model of your bridge that includes the geographical features of the area, using
                  [Building Models](http://www.bridgesite.com/funand.htm) to give you ideas for your construction.

        3.  Your team of experts will now prepare and present an oral and visual presentation

 convincing your community that you have chosen the best alternative for a bridge.  Your

 presentation must include background information about your bridge, a blue print and a 3-

 D model.

**To help you complete your proposal, you may want to consider the following**

**questions:**

* Where are you building the bridge?
* How long, wide, strong does your bridge need to be?  (Include: pedestrian considerations, number of lanes etc.)
* Describe your bridge and why you chose it?
* What materials are best suited to build your bridge and why?
* What are the advantages and disadvantages of your type of bridge?

**Use these resources to complete your proposal:**

Encyclopedias, Books, Magazines, and Websites.

**Evaluation**

See matrix

**Credits & References**

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**Adapted by Richard Rasmussen**