**Web Activity**:

Use the following web-sites to research and answer the following questions:

<http://www.pbs.org/wgbh/nova/bridge/build.html>

1. What type of bridge should be used for each location?

#1 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

#2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

#3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

#4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. What is the “coolest thing” about the Pont du Gard aqueduct in the section on arches?

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3. Why are beam bridges only used for short spans?

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4. What are some materials that have been used for making the cables for suspension bridges? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. What makes a cable stayed bridge different from other suspension bridges? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

<http://www.pbs.org/wgbh/buildingbig/bridge/index.html>

1. Click on the **Firth of Forth Bridge.** Why don’t we have bridges like this?

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2. Click on the **Brooklyn Bridge.** When was this bridge built? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How much did it cost? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How long did it take to build? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What was the cost of the toll? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Click on the **Chesapeake Bay Bridge-Tunnel.** Why was part of this structure built under water?

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4. Choose one more bridge of your own. What is interesting about this bridge?

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5. **Akashi Kaikyo Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Brooklyn Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Charles River Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Chesapeake Bay Bridge-Tunnel Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Firth of Forth Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Garabit Viaduct Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**George P. Coleman Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Golden Gate Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Iron Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**New River Gorge Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Sunshine Skyway Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Tacoma Narrows Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Tower Bridge Year built\_\_\_\_\_\_\_ Cost \_\_\_\_\_\_\_\_\_\_\_\_\_**

**If these were built today which one do you think would cost the most?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

<http://www.pre-engineering.com/>

1. Follow the directions below.

* Scroll down to “Teacher Resources”.
* You need to open and look at the contents of “Example Bridge Trusses” and “More Bridge Trusses.”
* Make a line drawing of the truss design that you like best.

2. Now open “Bridge Photographs.” How many photos are there? \_\_\_\_\_\_\_

3. Now open “Scotland’s Firth of Forth.” Scroll down to the second picture. It shows people demonstrating how the cantilever bridge works. Explain what is going on in the picture.

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