



Girl Scouts of Southern Illinois Council's Own

Building Bridges Interest Project Requirements

Adapted from the Building Bridges Try It by Christine and Caroline Stewart

The Mississippi River region is a showcase of bridges. The construction of bridges has played a vital role in the economy and development of the area, as well as in westward expansion. Girls will learn about the different types of bridges and their uses, civil engineering, construction, and design. Girls will also explore the actual construction of a bridge.

To earn the Building Bridges Interest Project, Girl Scout Cadette, Seniors, & Ambassadors must complete 2 skill builders, 1 technology, 1 service project, 2 career explorations, and one more from any category.

Skill Builder:

- 1.) Research the process of building a bridge. Write about the steps and what they entail and share this with your troop.
- 2.) Some frequently asked questions about bridges are: What should a bridge look like, What is the best kind of bridge, What determines the stress in a structure, What makes a bridge hold up, Why are the longest spans all in suspension bridges, and What forces act on a bridge. Find the answers to these questions and discuss them with your troop. Also try and find some other frequently asked questions about bridges. A great website to look on is <http://www.brantacan.co.uk/bridges.htm>.
- 3.) Research and learn five (5) terms associated with bridges and their construction.
- 4.) Make a sketch of your favorite bridge in your area and talk about why its your favorite.

Technology:

- 1.) How has technology helped in the process of building bridges? What technology has been most useful? Try your hand at building and testing your own bridge with software from West Point: <http://bridgecontest.usma.edu/index.htm>
- 2.) Discover how bridges were built before the use of advanced technology.
- 3.) Pick a spot in your area in need of a bridge. Discover what type of bridge would best suit your community's needs.
- 4.) How has technology enabled bridge designs to become more creative visually?

Service Project:

- 1.) Create a poster of the different types of bridges; include the most common types, bridges in the area, and some frequently asked questions about bridges. Take this information and share it with a younger Girl Scout troop.
- 2.) Create a presentation on the impact a bridge has on the environment. Present this at a younger troops meeting or at school.
- 3.) After learning about bridges and their structure, go and work with a younger troop that is also working on “Building Bridges” and hold a bridge building contest. Help the younger girls out by sharing your skills and knowledge about bridges.

Career Exploration:

- 1.) What is a civil engineer? What types of classes are involved in becoming a civil engineer?
- 2.) Learn about architects. Talk to a bridge architect and find out how he/she was trained and what it entailed.
- 3.) Find out if there is a college in your area that has an engineering program. What types of engineering? Is it a good program? Is it hard to get into? Call the college or university and talk to the department.
- 4.) What other job opportunities exist that is associated with bridges? What types of training/education does it require?