



MORRIS CENTER

FOR LOWCOUNTRY HERITAGE

Grade Levels:

Kindergarten-12th

Duration:

5-10 minutes to introduce the activity

15-20 minutes for discussion

20-30 minutes for activity

Materials:

- Popsicle Sticks
- Masking Tape
- Paper
- Pencils
- Model soldiers/horses (optional)

SC State Standards:

SCCCR-Social Studies

4.4.CE; 4.4.CX; 8.3.CE; USHC.2.P

Science

K.S.1A.2; 1.S.1A.2; 2.S.1A.2;

3.S.1A.2; 4.S.1A.2; 5.S.1A.2;

8.S.1A.2; H.P.1A.2

Visual Arts and Design

VA.CR.NM.1.1

Build a Bridge STEAM Lesson

Overview

In this study, students will act as designers and engineers to build a bridge as soldiers during the Civil War. They will work together to decide what type of structure would be best to traverse a creek and be able to withstand the weight of horses and supply wagons. They will use popsicle sticks and masking tape to construct the model.

This activity can be done anytime. It connects to the *Battle of Honey Hill* exhibition on view at the Morris Center.

Learning Objectives

- Students will plan and sketch ideas for a potential bridge design near a battle site in Civil War-era South Carolina.
- Students will use and refine models to test designs of a load-bearing bridge.
- Students will analyze the conditions of the Civil War soldiers and what materials they would have had to construct a bridge.



MORRIS CENTER

FOR LOWCOUNTRY HERITAGE

Activity

- Introduce the activity to your students. *You will get a chance to act as engineers as you construct a bridge for a group of soldiers to use during the American Civil War. These bridges will be a model, therefore, they are not the actual size of a bridge. During the Civil War, makeshift structures need to be made to use for combat, transport, or for overnight shelter. The soldiers did not always have ample time to plan what the structures would look like or the materials used to make them.*
- Discuss specific structures with your students.
 - *What types of structures do you think were built for combat or fighting? [An example is earthworks, which are fortified structures made from dirt. This gave soldiers a safe place to be during battle and offered protection from enemy fire.]*
 - *What types of structures do you think were built for overnight shelter? [An example is a dog-tent which was constructed with simple cloth and sticks.]*
 - *Today, you will create a structure for transport: a bridge? What materials do you think would have been used to construct a bridge? [lumber, nails]*
- In groups, students can discuss ways to construct a bridge to cross a creek. They will need to think about the water levels, weather, and the weight of horses and wagons.
- *You are going to sketch your ideas for the bridge. Your group can rate the different designs and vote on the one they think will work best. Using popsicle sticks and masking tape you will begin to create your model. Students can assign roles of constructing specific areas of the bridge. [Optional: Students can use model soldiers, horses, or wagons to test the strength.]*



Battle of Honey Hill Diorama, Morris Center for Lowcountry Heritage