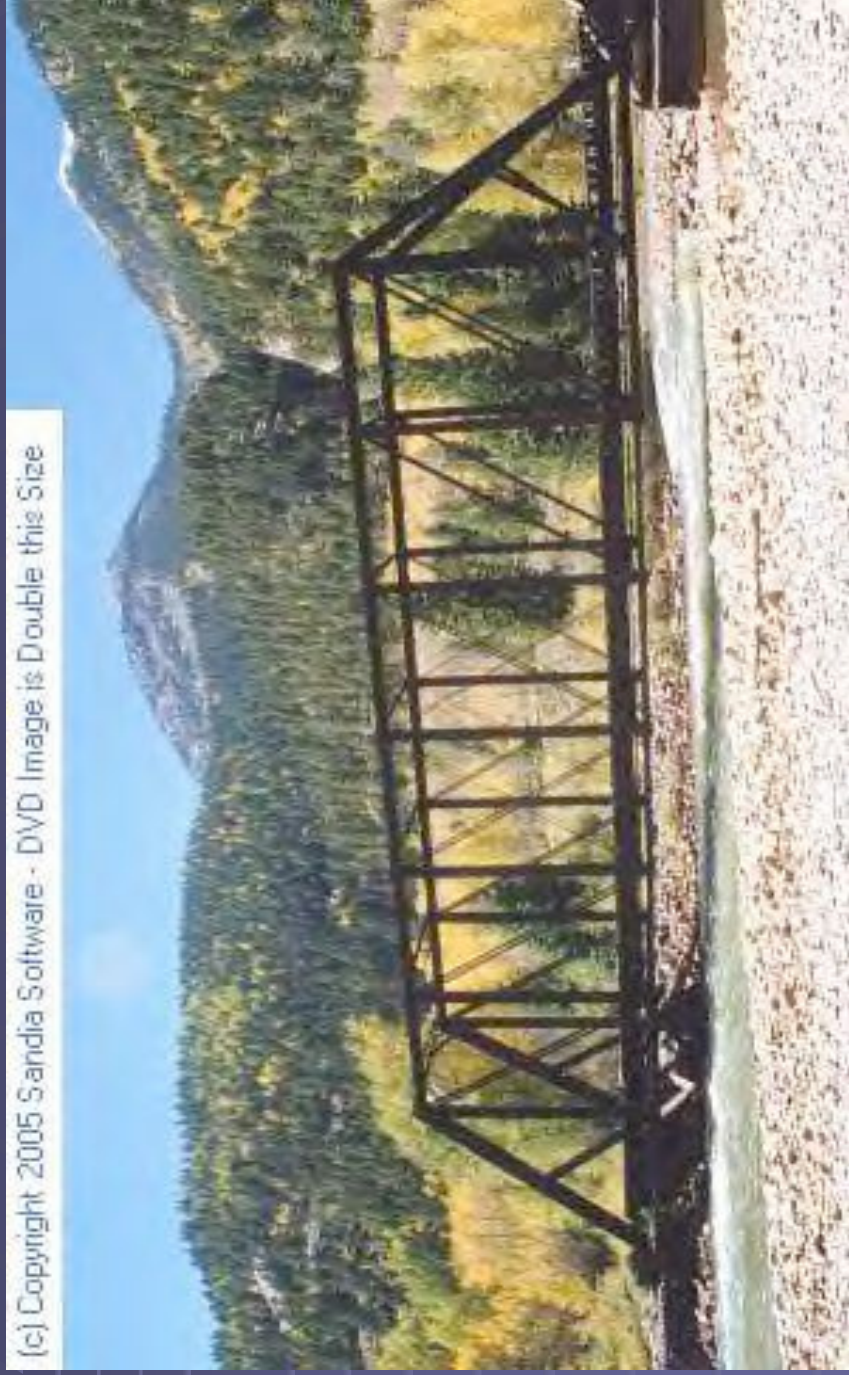


# Toothpick Bridge Design Project



# Toothpick Bridge Design Project

- **OBJECTIVE:** In design teams of 3 or 4 people you will design and draw a plan for an original truss bridge. After your bridge has been designed, you will create a model of that bridge using only toothpicks and glue. Once the models are finished, there will be a Final Challenge to see which bridge design can hold the most weight!!

# Goals

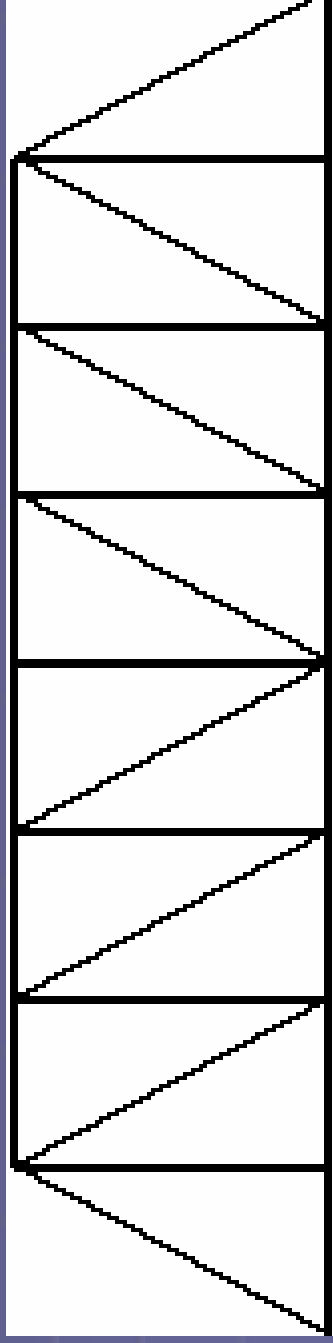
- 1. As a team design a Bridge using a **simple truss** as a starting template.
- 2. Draw that design as a plan on graph paper.
- 3. Build the bridge you designed using only toothpicks and glue.
- 4. Test how much weight the bridge can hold.

# What is a Simple Truss??

- A simple skeletal structure for a bridge.
- Comprised of many small beams that together can support a large amount of weight and span great distances.
- All beams in a truss bridge are straight.
- It spreads the weight the bridge has to hold.

# How to design a Bridge

- Each team will receive a handout outlining the different kinds of trusses used in bridge design.
- Use one of these basic models and design a way to improve upon it.
- Be Creative!
- Remember you want your bridge to hold the most weight!



# Plan Guidelines

- You will use graph paper to draw a plan of the bridge you design.
- The bridge cannot be longer than the graph paper (the maximum length of the bridge will be 11 inches).
- The bridge cannot be more than 3 inches in height.
- The bridge cannot be more than 3 inches in width.



# Your Plan must Include:

- 2 Side View Drawings of your bridge plan.
- 1 Top View Drawings of your bridge plan.

