

Chapter Project Manager

Chapter 4: Tri, Tri Again

Getting Started

As you work on the project, you will need a sheet of cardboard, a stapler, 100 toothpicks or 30 craft sticks, and glue. Keep this Project Manager and all your work for the project in a folder or an envelope.

Checklist

- Activity 1: cardboard frames
- Activity 2: observing bridges
- Activity 3: three-dimensional models
- toothpick bridge

Suggestions

- Push or pull the models only along the plane of the frame.
- Look for small design features that are used repeatedly.
- Use glue that is strong but quick-drying.
- Test small parts of the bridge before building the entire structure. Also, plan ahead the order in which you will assemble and glue the different sections.

Scoring Rubric

- 3** The toothpick bridge meets all specifications. The diagrams and explanations are clear. Geometric language was used appropriately and correctly. A complete account of the experiments was given, including how they led to improved designs.
- 2** The toothpick bridge meets or comes close to meeting all specifications. The diagrams and explanations are understandable but may contain a few minor errors. Most of the geometric language is used appropriately and correctly. Evidence was shown of at least one experimental model prior to the finished model.
- 1** The toothpick bridge does not meet specifications. Diagrams and explanations are misleading or hard to follow. Geometric terms are completely lacking, used sparsely, or often misused. The model shows little effort and no evidence of testing of preliminary designs.
- 0** Major elements of the project are incomplete or missing.

Your Evaluation of Project Evaluate your work, based on the *Scoring Rubric*.

Teacher's Evaluation of Project