



Cantilever Structures

This unit guide contains:

- Teacher Notes
- Setup Instructions
- Bill of Materials
- Scope and Sequence
- Assessments

Teacher Notes

- Cantilever Structures requires 7-12 class periods, or approximately two weeks. Each class period is equivalent to 30-45 minutes.
- All references to pages within the Scope and Sequence of this unit guide are located in the *Finding Out About Structures* teacher book. This book is provided separately.
- All student resources are located in the *Finding Out About Structures* student book. This book isn't a consumable. You will only need a classroom set.
- Rulers are common items that are the responsibility of the purchaser. The students will be utilizing various tools for the construction of their projects. You might want to take time to go over safety issues.
- Students will use a portfolio to answer questions and keep drawings. Blackline masters of these pages are provided in the teacher book on pages 93-96. They could use an engineering notebook or a composition notebook as well.
- To reorder consumables, go to www.pitsco.com. The product number for each item is provided in the Bill of Materials, or you can order the consumables for your entire class by contacting Pitsco.

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Setup Instructions

- Label all bins “Cantilever Structures.”
- Place all the square section wood and dowels together. Label “Wood.”
- Place rulers in storage tube. Label “Rulers.”
- Bin 1: Gray Bin
 - Place the unit guide, teacher book, and student books into the bin.
 - Label “Teacher Resources.”
- Bin 2: Blue Bin
 - Place the transparent tape, digital scales, plastic straws, flash cards, and paper clips into the bin.
 - Label “Activity 1/Challenge.”
- Bin 3: Jumbo Blue Bin
 - Place all the modeling clay, checkcard, and safety glasses into the bin. You will need to place the wood glue from the gallon container into the smaller individual empty glue bottles.
 - Label “General Supplies.”
- Bin 4: Blue Bin
 - Place the card corner triangles, wheels, screw eyelets, fishing line, soft wire, and glue spreaders into the bin. You will distribute these materials among the student teams when they are needed.
 - Label “Activity 2 Consumables.”
- Bin 5: Flip-Top Bin
 - Place the sandpaper sponges, Easy Cutters, hand drills, drill bits, bench hooks, vises, pliers, jointers, wood glue, and clips into the bin. You will distribute these materials among the student teams when they are needed.
- Label “Activity 2 Equipment.”