

Furniture Design Challenge

1 Week Challenge July 12 - 19

Grade Level	Title	Teachers
BMS & BHS	Furniture Design Challenge	Luke Kieffer (Lead Teacher), Sean Brody (BMS) and Greg Leiniger (BHS)
https://www.teachengineering.org/makerchallenges/view/uod-2101-out-of-box-cardboard-furniture-design-challenge		

Identify the Problem to Be Solved	In this challenge, students will use the steps of the engineering design process to create a functional piece of furniture constructed entirely from cardboard. During this process students will learn research strategies, sketching skills, fabrication techniques, and principles of ergonomics and structural design. Students will decide what type of lifesize furnishing they will build from three categories: tables, chairs, or shelving/storage units. Fabrication materials can only include cardboard, adhesives, and paper. Students will need to provide their own materials, so start saving your cardboard boxes now!
Identify materials that are commonly found around the house that might be used in completing the challenge.	Cardboard of all kinds (Boxes from mail-order, local businesses, and industry) Cutting tools (scissors, utility knives, hand saw) Measuring tools (Tape measures, yard sticks, rulers) Adhesives (White glue, wood glues, polyurethane-based glues, epoxies, UV Cure)