

## Build a Chair out of Cardboard



**Objective:** Use the Design Process to design and build an aesthetically pleasing and original chair built entirely of cardboard using no glue or adhesives (tape) of any kind

**Material:** cardboard

### **Criteria:**

- Follow the steps in the Design Process
- Must be your own design (you can work virtually with friends in a group of 3-4)
- Chair must be at least 17" off the ground
- Chair must have a backrest (aka- no benches or stools)
- Chair must successfully hold the weight of an adult – approx. 120lb

Use the steps of the Design Process for this project. Here are the steps you need to follow:

- a. Define the problem (build a chair using only cardboard, with a back, that an adult can sit on)
- b. Research (see resources below – make a page in OneNote to keep all of the information in one place. Use the internet to help you with your ideas, but your design should be unique to you! In professional design companies, the “research” phase is the most important step and takes the most time. This project should be the same way!)
- c. Brainstorm (discuss ideas with your friends, parents, and/or Ms. K!)
- d. Test and evaluate (build your prototypes, come up with a drawing of your design, send it to Ms. K for approval before you start building)
- e. Build (take pictures during the process!)
- f. Re-evaluate (what worked, what didn't? How could you make your cardboard chair better, within the guidelines of this project? Yes, obviously using wood and nails would probably make a better chair, but that's not the problem we're trying to design for!)

### **Resources:**

#### 1. Google Videos/Youtube: “carboard chair”

Watch clips of chair critiques from high schools and universities to professionals. They are exciting and will help you better understand what you should aim for. For example:

- Chishen Chiu, a young designer based in Miao Li, Taiwan has “flexible love seat” that is amazing (and is now it's own company, <https://www.stretch-design.com/>)
  - o <https://www.youtube.com/watch?v=LbEEXMIhZR0>
- <https://www.youtube.com/watch?v=7i4ZVk5EbLM>
- <https://www.youtube.com/watch?v=y7b3vbbWJJw>

2. Google: “cardboard chair” and/or “cardboard furniture”. There are many professional designers that sell cardboard products, especially in this day and age of environmental concern.

Example: <https://www.designboom.com/tag/cardboard/>

3. Google Image: “Cardboard Chair”

- Save some examples for inspiration and ideas!
- If you have an interest in architecture, check out Frank Gehry’s wobble chair, which he started designing in cardboard first! Some other things to google for inspiration:
  - Charles and Rae Eames Chair
  - Herman Miller
  - Frank Gehry Cardboard Chair
  - Museum of Modern Art Chairs
  - Design Within Reach
  - Bauhaus Chairs
  - History of Chairs
  - Vitra Chairs