LEGO-Cardboard Creation
Teacher Guide

3 MINUTE CLASSROOM with Bill Church

VIDEO

Link:
https://www.youtube.com/watch?v=G2N8i0env18&t=1s

ABOUT

Cardboard is a ubiquitous classroom building material. Using it in projects is a great way to upcycle resource material before recycling it. Relative to other "raw" materials like plywood sheets, metal, or PVC materials, cardboard cuts very easily. Relative to LEGO's geometry, cardboard has the advantage of being able to put holes anywhere for attachments.

As you'll see in this video, cardboard adds new projects possibilities to your LEGO project while keeping the overall project easy for beginnings and broad enough for experts.

WHAT YOU WILL NEED

- Clean cardboard
- LEGO beams
- Sharp pencil
- Brass fasteners
- CANARY Cardboard Knives for Kids
- Heavy duty scissors
- Paper cutter
- Battery powered cardboard cutter

WHAT YOU CAN DO

- Use cardboard to personalize LEGO projects
- Cardboard is a resource for new types of STEM/LEGO projects - e.g., make a LEGO turbine with large cardboard fan blades. Make an electronic musical instrument with a cardboard body.
- Make big projects quickly!

PREPARATION

- Read through the Teacher Guide
- Print LEGO-Cardboard placemat for student use

TIPS

- Not all cardboard is alike - check out the density of corrugations and the # of layers. Some types are very rigid and durable which makes them hard to cut!
- Try out different types of cardboard cutters. They come in two types - serrated edge, passive cutter and motorized "mini circular size" cutters.
- Pre-cut sheets before student use

Tufts UNIVERSITY | School of Engineering Center for Engineering Education and Outreach

wmsi WHITE MOUNTAIN SCIENCE