The Cardboard Queen

Marcia Lynn Didtler

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No Glue, No Tape, No Staples & How a 2-D object can easily become a 3-D object using 'recycled cardboard'!

Art, Design, Communication and Visual Literacy go Hand and Hand as we explore creating a 3-D Prototype out of cardboard from a 2-D pattern. No Glue, No Tape, No Staples! Sculptures will use recycled cardboard, proportion & design from whimsical to architectural "Neon Light Prototypes".

Vocabulary: Design, Marketing, Industrial Design, Prototypes/Prototype Designs, Cardboard Engineering, Scale Models, Architecture, Pattern Making, Packaging

Learning Objectives: Students will create a 3-D Project out of Cardboard, while learning the concepts of structural assembly, marketing and packaging as well as elements of design and composition including structural balance and armature. Anchor Standards #1 to #11 can be adapted as needed to the level of inquiry.

Teaching Approach: Project Based Learning / Arts Integration

Teaching Methods: Discovery Learning/Discussion / Experiential Learning/Reflection

Project Step Rubric: Activity Sequence

Step 1: Design a Paper Pattern to be built into a 3-D Project in Cardboard
Step 2: Build the Pattern in Cardboard
Step 3: Color the Project if desired with paint
Step 4: Projects must be able to be taken down or apart, travel flat & be reassembled!!
Step 5: Display or Use of the Object in a real life setting. Traveling Display/Prototype/Art Show/Classroom Display

References: Lessons, Rubrics, Research and More1
neonmuseum.org, Neon Light Museum, Las Vegas, Nevada
neonmona.org, Museum of Neon Art, Glendale, California
Cardboard Engineering Projects-Pinterest, Project Based Engineering for Kids & lots of other sites. Cardboard Displays, Cardboard Folders, Cardboard Packaging. There's lots of Cardboard Engineering Projects on -line you can adapt to your needs, level and curriculum.

Tools: Paper for Pattern Making, Scissors, Pencils, Cardboard, x-acto knives, paint if you choose.
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Sample - Examples of Cardboard Patterns: Not necessarily to scale.
Jewelry Pendants
Basic Cardboard Engineering and Prototype Designs

Jewelry Pendants can be made with paper or cardboard. Students can use a pattern you design or they can make their own. These pendants can be attached with string to the Neck Back. Attach your string or strings to a pendant(s). Make a knot at the both ends of the string or group of strings and slide it just above the knot into the slot on the Neck Back.

Neck Back:

Pendants:
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Greek / Roman Columns:

Column Body: Cut out and score cardboard, Roll to make a column place top & bottom piece on the rolled column to create a standing cardboard sculptural antiquity column. Paint if you chose.
Greek / Roman Columns:

Top/Bottom - Cut 2
Place over "scored" cardboard rolled column body.
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Greek / Roman Columns:

Option 2 for Top/Bottom of Column:

Top - Curl Down after scoring cardboard
Bottom - Curl up after scoring cardboard
The Cardboard Queen-Cardboard Engineering
Hopi Kachina Pattern (2 Styles- 3 choices of Head Tops or make your own)
(2 pages need to be stacked)
The Cardboard Queen - Cardboard Engineering
Hopi Kachina Pattern (2 Styles - 3 choices of Head Tops or make your own)
(2 pages need to be stacked)

PLACE FEATHER HERE
Hopi Kachina Pattern
(2 Styles - 3 choices of Head Tops or make your own)
(2 pages need to be stacked)
The Cardboard Queen - Cardboard Engineering
Hopi Kachina Pattern (2 Styles - 3 choices of Head Tops or make your own)
(2 pages need to be stacked)
The Cardboard Queen—Cardboard Engineering
Hopi Kachina Pattern (2 Styles—3 choices of Head Tops or make your own)
(2 pages need to be stacked)
The Cardboard Queen - Cardboard Engineering
Triptych Pattern:
The Cardboard Queen-Cardboard Engineering
Beaver Totem Pattern:
(3 pages- need to be stacked to create the whole totem)
The Cardboard Queen - Cardboard Engineering

Beaver Totem Pattern:
(3 pages need to be stacked to create the whole totem)

Score & Fold

Incise back of main totem & place tab here into create the stand
The Cardboard Queen - Cardboard Engineering
Game Boards and Pieces (Create your own)