

Box Fold (Cube Pop-Up) Card Template

Create Amazing 3D Cube Pop-Ups

Materials Needed

- **Cardstock** (at least 3 sheets)
 - **Ruler**
 - **Pencil**
 - **Scissors or craft knife**
 - **Glue stick**
 - **Tape**
 - **Graph paper** (optional, helpful for accuracy)
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Step-by-Step Instructions

Step 1: Design the Cube Net

Draw a cross-shaped pattern with six connected squares (each 2" x 2"). Alternative: Create an L-shaped pattern with 5 squares total - 4 squares in a line plus one additional square connected to make an L-shape.

Step 2: Add Attachment Tabs

Draw 1/2" tabs on appropriate edges for gluing.

Step 3: Cut and Score

Cut out the net and score all fold lines with a ruler edge.

Step 4: Create the Base Attachment

Cut two parallel slits in your card's center fold, 2 inches apart.

Step 5: Assemble the Cube

Fold and glue the net into a three-dimensional box, leaving the top open.

Step 6: Position and Attach to Base

- Place your cube in the center of the card

- Align 2 corners at the center of your card
- Position so the side with the outside of the top of your box faces you
- Tape the front 2 sides down on the card
- Test by closing and opening your card for proper placement

Step 7: Create the Lid Mechanism

- Fold the lid so it will fold downwards
- Make a folded piece of paper (taped/glued so it won't unfold) that will help lift your lid
- This support piece must be 2" (the length of your box)
- Tape this to your lid and to the card, making sure NOT to cross the center line

Step 8: Secure the Lid

Tape one side of the lid closed on the opposite side of the card.

Step 9: Add Decorative Elements

Draw windows, doors, or other details to make your cube come alive.

Key Learning Concepts

- **3D geometry** (faces, edges, vertices)
 - **Spatial reasoning and visualization**
 - **Net patterns and geometric relationships**
 - **Mathematical precision and measurement**
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Creative Applications

Buildings and Structures

- **Houses:** Add windows, doors, chimneys
- **Castles:** Create towers and battlements
- **Skyscrapers:** Modern city buildings
- **Barns:** Farm-themed designs

Containers and Boxes

- **Treasure chests:** Add gold coins inside

- **Gift boxes:** Surprise elements inside
- **Toy boxes:** Fill with miniature toys
- **Storage cubes:** Functional and decorative

Character Homes

- **Dollhouses:** Multi-room layouts
 - **Animal habitats:** Burrows, nests, dens
 - **Fantasy dwellings:** Fairy houses, wizard towers
 - **Space stations:** Futuristic designs
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Important Notes

- **The box cube mechanism can be tricky** - take your time with measurements
 - **Precision is key** - use graph paper for accurate squares
 - **Test frequently** - Check that the card opens and closes properly at each step
 - **Reinforcement** - Add extra tape or cardstock where needed
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Troubleshooting Tips

- **If the cube doesn't pop up properly:** Check that the base attachment is secure and properly positioned
 - **If the card won't close:** Ensure the cube isn't too large for the card
 - **If the lid doesn't work:** Verify the support mechanism is the right length and properly attached
 - **If the cube is wobbly:** Add reinforcement tape to the joints
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Success Checklist

- ☐ Cube net is accurately cut and scored
 - ☐ All tabs are properly glued
 - ☐ Cube is securely attached to base
 - ☐ Lid mechanism works smoothly
 - ☐ Card opens and closes properly
 - ☐ Support mechanism doesn't cross center line
 - ☐ Decorative elements are added
 - ☐ Structure is stable and durable
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Master Builder Tip: This is the most challenging pop-up mechanism - don't get discouraged if it takes a few tries to get it right!