Pull-Tab Mechanisms Pop-Up Card Template

Create Interactive Sliding Elements

📋 Materials Needed

- **Cardstock** (3-4 pieces)
- **Scissors**
- **Ruler**
- **Pencil**
- **Glue stick**
- **Small piece of cardboard** for reinforcement
- **Decorative materials** (markers, colored paper)

🎯 Step-by-Step Instructions

Step 1: Plan the Movement

Decide what will move when the tab is pulled (sliding door, moving character, changing scene). The size of your strip can vary depending on what you want to achieve.

Step 2: Create the Base Card

Create a standard fold with a window or opening cut where the action will occur.

Step 3: Design the Moving Element

Create the piece that will slide when pulled (should be slightly larger than the window).

Step 4: Make the Track System

Cut two parallel slits in the back of the base card for the tab to slide through.

Step 5: Create the Pull Tab

Cut a strip 1″ wide by 4-5″ long, then thread through the track system.

Step 6: Attach Moving Element

Glue your design to the part of the tab that shows through the window.

Step 7: Add a Pull Handle

Create a small tab or shape at the end for easy gripping.

Step 8: Test and Refine

Pull the tab to ensure smooth operation and proper alignment.

🎓 Key Learning Concepts

- **Linear motion and force application**
- **Cause and effect relationships**
- **Engineering design process** (test, modify, improve)
- **Problem-solving and troubleshooting**

🎨 Creative Applications

Interactive Scenes

- **Opening doors**: Reveal what's behind doors
- **Moving characters**: Make people or animals walk
- **Changing weather**: Show sun, rain, or snow
- **Growing plants**: Watch flowers bloom

Educational Elements

- **Before and after**: Show transformations
- **Matching games**: Pull to reveal answers
- **Storytelling**: Change scenes in sequence
- **Math problems**: Pull to reveal solutions

Surprise Elements

- **Hidden messages**: Pull to reveal text
- **Pop-out characters**: Make figures appear
- **Changing faces**: Show different expressions
- **Magic tricks**: Create illusions of movement

🔧 Construction Tips

Window Sizing

- Make the window slightly smaller than your moving element

- Ensure clean, straight cuts for smooth sliding

- Test fit before final assembly

Track System

- Keep slits parallel and evenly spaced

- Make slits just wide enough for the tab to slide smoothly

- Reinforce with cardboard if needed

Pull Tab Design

- Make the handle comfortable to grip

- Ensure the tab is long enough for full movement

- Add decorative elements to the handle

✅ Success Checklist

☐ Window is properly sized and positioned
☐ Moving element slides smoothly
☐ Pull tab moves freely through track
☐ Handle is comfortable to use
☐ Design aligns properly in all positions
☐ Card closes flat when not in use
☐ All elements are securely attached

Innovation Tip: Experiment with different window shapes and moving elements to create unique interactive experiences!