

Simple Pop-up Mechanisms

These three pop-up mechanisms are quick and simple ways to start building the pop-up book of your dreams.

Materials

Cardstock or other heavy paper

Scissors

Glue

(optional) pen with no ink or other scoring object

Mechanisms

Key: cut

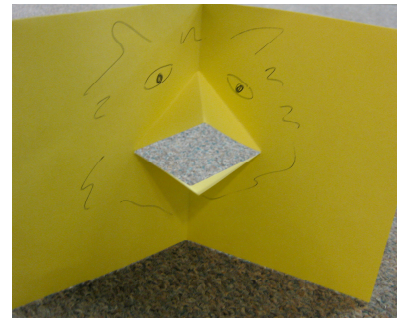
fold

glue

Tips: Scoring the folds with a blunt edge or pen that has no ink keeps them crisp and straight. It can be easier to glue things in place with the card in the closed position. Then open the card when the glue is dry.

1. bird beak

This quick and easy pop-up involves one cut and no glue.



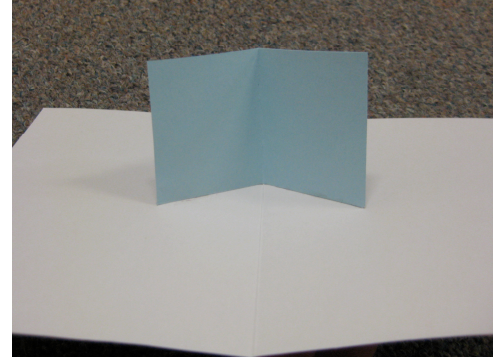
2. parallelogram

A simple way to make something stand out.



3. V-fold

A fundamental mechanism to pop-up a multitude of shapes. Experiment with different angles and shapes to get your desired effect.



All of these pop-ups will be greatly enhanced with colored paper and artful decoration. Many of the more complicated pop-ups are simply variations and combinations of the three here. V-fold on V-fold, V-fold coming from a parallelogram, etc. Experiment with different designs to create your desired effect!

References

There are numerous books and websites to with templates and descriptions of these and more complicated pop-up mechanisms. Here are some fine books that can be found in the Exploratorium Learning Commons.

Pop Up! A Manual of Paper Mechanisms by Duncan Birmingham

The Elements of Pop-up by David Carter

Paper Engineering for Pop-up Books and Cards by Mark Hiner

Online you can visit pop-up master Robert Sabuda's excellent website: www.robertsabuda.com
He has wonderful templates to download and make as well as a thorough list of reference books for making your own.