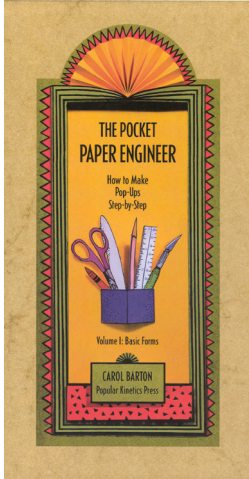


# Pop-up Architecture Projects for Kids to Make!

## Three lessons in architectural design for kids



**P**aper Engineering is the professional name for the art of designing and building pop-up cards and pages. As a three-dimensional and mechanical art form, it can provide kids with an exciting introduction to concepts related to architecture, structural design, city planning, and engineering. Using plain paper, students learn to cut and fold their pages into pop-up buildings and interior spaces. Step-by-step directions

in Carol Barton's **The Pocket Paper Engineer** workbooks (*Popular Kinetics Press*, 2008) teach this process.

### Build Your Own Pop-Up House

Using the box and triangle combination described in **The Pocket Paper Engineer, Volume 1**, kids can illustrate their own home or design a house from their imagination. Then the whole class can put their pop-up houses in a row to build a pop-up street. The project can be expanded to designing pop-up stores, schools, businesses, and restaurants; students can combine these into a pop-up book of their neighborhood. It's a great way to start students thinking about architecture and urban planning. Teachers can discuss architectural details such as the pitch of a roof, dormer windows, porch and deck additions, window and door configurations, and columns or railings to encourage students' observations of the many variations that give character to a building.



### Design a Pop-Up Room

Many architects have created furniture and fixtures that complement the structural design of their buildings, among them Frank Lloyd Wright, Marcel Breuer, and Eero Saarinen. By following the directions for making pop-up "props" in **The Pocket Paper Engineer, Volume 2**, kids can try their hand at designing paper rooms, with pop-up furniture and appliances defining each room's function. Budding young interior designers can discuss how colors, textures, patterns, and light all affect the feel of an interior space, helping kids develop an understanding of form, function, and visual balance.

### A Lesson in Architectural Styles

Making pop-up buildings is a fun way to explore architectural history. Egyptian pyramids, Greek temples, and Palladian villas can be illustrated dimensionally with layered props, creating architectural models that conveniently fold flat. Students also can explore the relationship between buildings and building materials, noting how architectural styles often vary with climate and available resources. Pop-up houses can be illustrated within surrounding landscapes to emphasize this relationship. Frame houses in snowy climates have steeply pitched roofs that shed snow loads. Adobe or clay houses in hot, dry areas have thick walls that keep interiors cool. Students can add text to their illustrations, further explaining these connections.

Creating pop-ups is an ideal way to introduce kids to architecture because it involves several of the same visual, mechanical, and engineering skills that architects employ. The activity encourages kids to use their imaginations, observe the world around them, and envision a future which they can help design. **For more ideas and examples, visit:**

[www.popularkinetics.com](http://www.popularkinetics.com)

**The Pocket Paper Engineer**  
**How to Make Pop-Ups Step-by-Step**  
Carol Barton