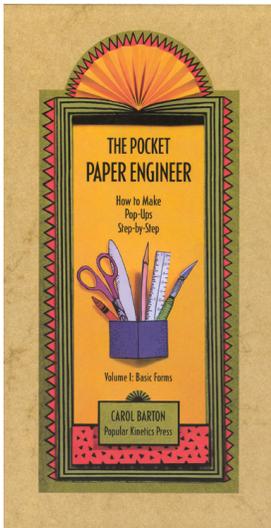


Livelier Learning with Pop-Up Books!

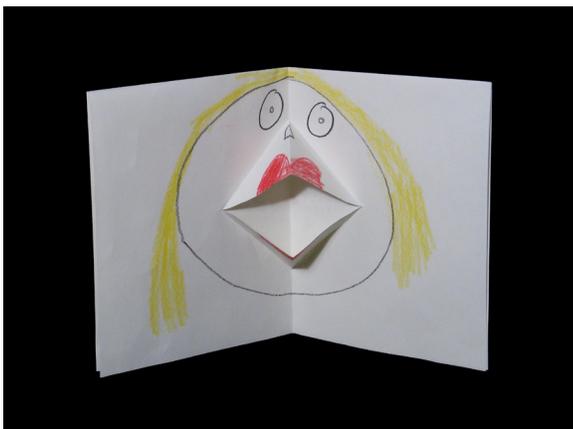
Four lessons kids can learn through making their own pop-ups



Kids love pop-up books. And they love making their own pop-ups even more! Creating pop-ups is an activity that involves a lot of play, plus it also helps kids develop a wide range of practical skills. By following the step-by-step directions in Carol Barton's **Pocket Paper Engineer** workbooks (*Popular Kinetics Press, 2008*) here are four things kids can learn from the process of building their own pop-up pages.

A Lesson in Writing and Storytelling

Once kids learn to build basic pop-up structures, they have no problem turning them into illustrations for a story. Animals, nature and urban scenes, food, people and pets all start springing off the page. Kids weave their pop-up images together into a narrative sequence and are inspired to develop their writing skills as a result. For students struggling with written and verbal communication or with English as a second language, the fun of making pop-ups can break down communication barriers and lead to improved literacy and conversation abilities.



A Lesson in Measuring, Math, Geometry

Making pop-ups does not require an advanced understanding of math or geometric principles, but it does help kids develop an intuitive grasp of mathematical concepts and geometric relationships. If kids absorb these concepts early, they find it easier to apply the formulas at later stages in their education. Pop-up construction is also a great device for teaching measuring skills in the lower grades.

A Lesson in Trial-and-Error Problem-Solving

Kids often are led to believe there is only one right way to answer a question. This may be true on a multi-choice test, but in the creative sciences and the arts there are usually many approaches to a problem, and answers come from a sequence of trial-and-error steps. Figuring out how to build, alter, and develop new pop-up forms reinforces the trial-and-error technique of discovery and invention, a critical element in any design process. Kids are encouraged to learn from failed attempts and try new ways of coming up with a solution for what they want to make.

A Lesson in Basic Mechanics and Dimensional Design

Pop-ups are like little machines – they move with the opening and closing of the page. Making pop-ups subtly reinforces kids' understanding of mechanical movement in a way that is almost magical. It's the reason this art form is called "paper engineering." Plus, learning to make pop-ups enables budding young architects, designers, and engineers to envision objects three-dimensionally.

Creating pop-ups is an ideal cross-curriculum activity. It encourages kids to think and experiment within a fun, playful medium. It also can serve to teach them valuable life and career skills. **For more ideas and examples, visit:**

www.popularkinetics.com