RAFT IDEAS

Topics: Construction, Shapes, Science Investigation & Experimentation

Materials List

- ✓ Rigid, rectangular plastic pieces of uniform size (e.g. – Black plastic trays with holes) (at least 20 per student team)
- ✓ Optional: twist-ties, chenille stems, or other materials to tie pieces together

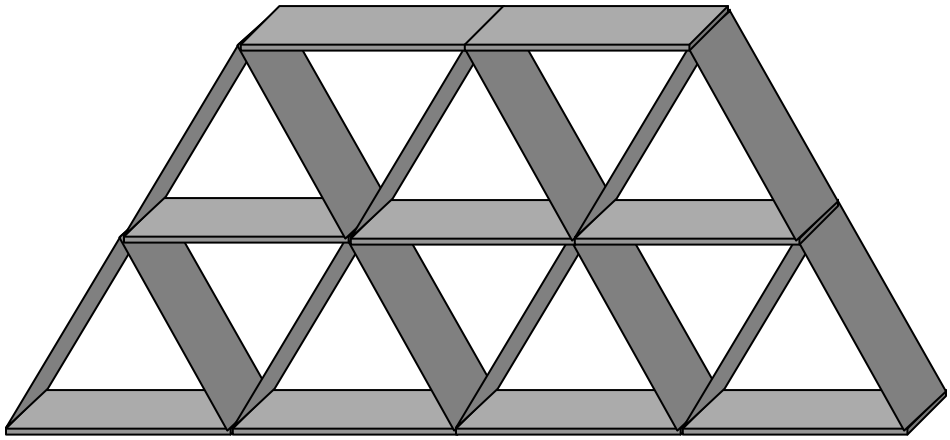
This activity can be used to support the teaching of:

- Scientific Process
- Design Elements
- Physical and Motor Development

raft resource area for teaching www.raft.net

A Giant House of Cards

How High Can You Go?



Challenge students to "Giant Building" for a big twist on an old favorite

To Do and Notice

1. Allow students to construct using the supplied plastic pieces.
2. Encourage investigation of shapes. Do triangles or squares make the most stable structures?
3. Optional: Challenge the teams to build the tallest structure (or most aesthetic design) in a short amount of time, such as 5 or 10 minutes.

Remember to Play it Safe!

- ✓ Because of the potential size of built structures, plan on building from the ground or on a large, flat surface.
- ✓ Allow enough space between teams so that if a structure falls it will not enter another team's space.
- ✓ Remind students to stay alert and get out of the way if their "House of Cards" falls.

The Content Behind the Activity

Architects and engineers design, test, and build. There is no better way to learn about design implementation and construction than building first hand. Participants learn what works by trial and error: If the structure falls down, they modify the design and try again. If a connection method fails, they try an alternative. Learning by experimentation is the core of the scientific process. Architecture is truly a profession where art meets science by designing for aesthetics and function within the constraints of material properties.

Taking it Further

Activities that include building on a large scale can be great fun and powerful learning experiences. RAFT provides many types of materials that can be used for large building projects. Check out the RAFT Idea Sheet ***Box Blocks*** for more big building ideas.

Web Resources (Visit www.raft.net/raft-idea?isid=78 for more resources!)

Developed and written by Coral Clark (RAFT)