

# MODELING

## ► MODELING MATERIALS

### *Information, tips, tricks, and resources for modeling...*

Most projects submitted to the ABC design competition are 3D - however, some outstanding 2D presentations have been submitted and have won awards, so don't feel like you HAVE to build models in order to have that 'wow' factor. See the photos of winning projects on the ABC web page (under 'past projects') as well as past-project images on the PowerPoint presentation for examples.

### **General Tips:**

**Valuable items** such as dolls, building system toys (Legos, Tinker Toys, etc.), matchbox cars, dollhouse furniture, etc. are **STRONGLY DISCOURAGED** for projects that will be submitted for exhibition. While every effort will be made to keep projects safe, it is a highly trafficked public space and we cannot guarantee safety.

**Hot glue** is a favorite for the speed it allows when putting together projects. Please be aware that some plastics such as polystyrene give off fumes when in contact with hot glue. Always work in a well-ventilated area and use caution with 'found' materials and hot glue.

**White Glues** such as Tacky-glue and Sobo (there are other 'craft' glues too) dry a little faster and are more viscous than Elmer's, so they stick better to what you're working on. With all typical white school and craft glues, tight connections and a "less is more" ethic work best for both speed of construction and the overall strength of the model.

### **Modeling Activity: Collecting Modeling Materials**

Put "re-use," the second of the three R's, to work for you.

As soon as possible, begin to collect the following:

cardboard, construction paper, card-stock, thin-cardboard boxes of all shapes, plastic cups, emptied (cleaned & dried) soda bottles, straws, sticks, rocks, doo-dads, formed plastic bits from packaging, pretty much all kinds of packaging discards that do not have food or toxic residue.

- Designate a team of students to develop a flier to print and send home in backpacks asking for materials.
- Have all students create a designated collection box at home, and ask their parents to bring bits home from the office.
- Place **COLLECTION BINS** around the school - Library, Office, Teacher's Lounge, Parent Center, etc.
- Have students prepare a presentation to the teaching staff about the project and the materials they are looking for as the start of having the collection bins around the school.
- You'll have an impressive collection of "possibilities" in no-time.

### **Modeling Activity: Getting to Know Your Materials (card-stock)**

Design and build a mini dog house.

**Materials:** two 4"x8" sheets of card-stock (scale: 1" = 1'-0") per student  
scissors  
pencil  
ruler or scale

**K-8 RULES** - use minimal tape. no glue. Utilize non-tape connections wherever possible (see below)

**9-12 RULES** - NO tape, glue, string, or other second-party fastening materials

#### **Suggested Connections:**

    Tabs & Slots

    Folds / Scoring

    Ask students if they can come up with others

        - hint: do a web-quest for images of "packaging designs"