Pesticide/Chemical Look-a-Like Display

Construction Instructions
Pesticide/Chemical Look-a-Like Display

You will need:

For Construction
- Hard rolling case
- 18 Unbreakable test tubes with screw lids
  http://www.stevespanglerscience.com/product/1367 $19 for 30 tubes
- 2 foam poster boards (19” x 25”, 3/16” thick); You may have to cut foam boards to size.
- Velcro-Industrial Strength Sticky Back
- Aluminum wire, soft, 14 gauge, 25 ft
- Metal backing (26 plates)
- Hot glue gun
- Hot glue sticks
- Ruler
- Pencil
- Return address labels (Avery 5667) or permanent marker
- 2 pieces of packing foam (13”x2”x25”)
- 2 bungee cords (these come with the hard rolling case)
- Drill
- Small drill bit
- Utility knife
- Wire cutters
- Pliers

For Comparison
For test tubes:
- Pink jelly beans
- Benadryl
- Powered sugar
- Flea killer (powder)
- Sudafed
- Red hots
- Tylenol
- White tic tacs
- Dayquil & Nyquil
- Blue and green jelly beans
- Tums
- Smarties
- Water
- Bleach
- Apple juice
- Gasoline
- Windex
- Blue Gatorade

For other look-a-like items:
- Old English-Lemon Oil (Small bottle)
- Apple Juice
- Comet
- Parmesan Cheese
- Icy Hot
- Toothpaste-travel size
- Pepsi
- Engine Restorer & Lubricant
- 7up
- Fabuloso mopping cleaner

Produced with support from CDC/NIOSH Cooperative Agreement U50 OH07541.
Courtesy of the Southwest Center for Agricultural Health, Injury Prevention and Education
Construction Overview:

Test tubes and look-a-like materials are attached to pieces of foam board with aluminum wire and hot glue. The aluminum wire is wrapped around the test tubes and materials, pulled through the foam board, and twisted tight on the back of the foam board. Holes for the wire are pre-drilled with a small drill bit. Metal plates are attached to the back of the board with the wire to prevent tearing. The Comet, Pepsi, Engine Restorer, and 7up are emptied to make the display lighter. The other liquid items need to remain full in order to look similar.

The foam board is attached to the rolling case with Velcro-Industrial Strength. For a more permanent display, you could use thin white plywood for the foam board and attach it to the case with small screws. Make sure the screw tips do not pose a hazard.

Test tubes are labeled with small return address labels or a permanent marker. Materials are held in place for transport by packing foam and bungee straps. The hard rolling case comes with bungee straps and built in hooks.
Step 1:
Go shopping! Collect the materials for construction and comparison. If you are using different items than listed above, the construction may differ slightly.

Step 2:
Use utility knife to cut foam board to fit inside hard rolling case. You may need to cut the foam board down to size in addition to cutting a small semi circle on the bottom inside corners to fit around the wheel case.
Step 3:
Use a ruler and pencil to mark the holes where the metal wire will hold the test tubes and look-a-like materials in place. For the test tube side, the starting mark is 2.5” from the top and 2.5” from the left side. Next, move to the right 1” and make a mark. These two marks make a set. Move right 1.5” to begin the next set. After 3 sets, move down 7.5” from the first mark and start over. There will be 3 rows in all. See Diagram 1 below.

Diagram 1: Left side measurements for test tubes

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  2.5"  1.5"  1"  2.5"

  2.5"       . . . . .

  7.5"       . . . . .

  7.5"       . . . . .
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For the right side, the measurements and holes are less exact and will vary depending on exact materials used. Lay the items out on the board and make pencil marks on either side of the narrowest part of each item. Remove items and readjust each set of marks to be 1” apart. They need to be 1” apart so that the metal backing will fit the holes. This means the wire will actually curve around to the back of some items.

**Step 4:**
Drill holes over the marks made in Step 3 with small drill bit. Tip: Put a piece of plywood under the board while drilling.

**Step 5:**
Cut aluminum wire. You will need 18 pieces that are 7” long for the test tubes. For look-a-like materials, cut each piece 3” longer than the circumference of the item to be held.
Step 6:
Prepare items to be attached to the foam board. Fill test tubes with caparison items. Label the tubes, if desired. Make a key for the test tube contents. Empty the Comet, Pepsi, Engine Restorer, and 7up. Clean the emptied containers out and allow to dry.

Step 7:
Attach test tubes to the board with aluminum wire. Pull wire through the pre-drilled holes and the metal backing plates. Twist the wire and press against the metal backing to secure. Tip: Use pliers to twist the wire.

Hot glue all other look-a-like materials to the other foam board. Attach those look-a-like materials with the aluminum wire according to the instructions above. Tip: Make sure the holes for the wire are accessible before you hot glue the items to the board.
Step 8:
Attach hook side (firm side) of the Velcro to the back of the form board. Attach the corresponding loop side (soft side) to the hook side. Lay the boards down in the case (Velcro side down) and press down firmly where the Velcro was positioned. Lay display down open and allow Velcro to make full contact for 24 hours.

Step 9:
Place packing foam on either side of the display and hold in place with the bungee cords. Store at room temperature.

For additional information or trouble-shooting assistance, contact The SW Ag Center at 903-877-5998 or by email to agcenter@uthct.edu.