

Name: \_\_\_\_\_

# *Pattern Design Activities for Kids*

*by Don McCunn*

## *Book One - The Basics*

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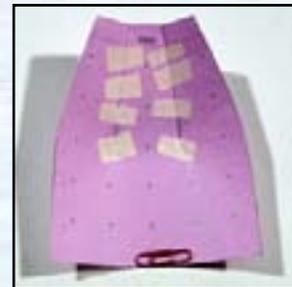
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Glass & Cardboard Bottles



The Master Pattern



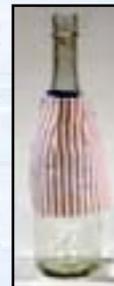
Taped Darts



Darts in Paper



Paper & Paper Towel



Fabric Darts



Happy Birthday

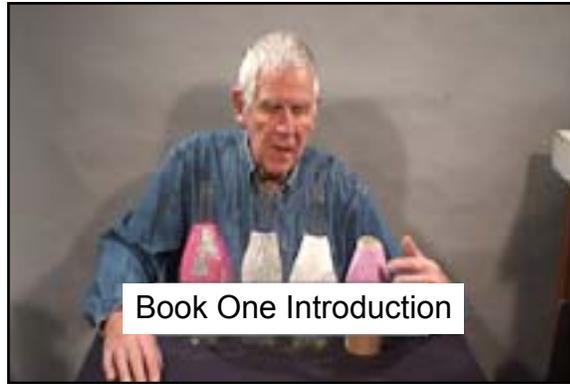


Merry Christmas



Mother's Day

# *Introduction to the Basics*



For the projects described here, you need a glass wine bottle or a cardboard bottle of the same shape. If you are using a glass bottle, the neck should be shaped like the illustration below. If you are using a cardboard bottle, it can be made from a cardboard shipping box or colored craft cardboard. The pattern for the cardboard bottle can be printed from the pattern on page 13 or hand drawn as shown on page 14.

The Master Pattern can be printed from the pattern on page 10 or hand drawn as shown on page 11.



Glass &  
Cardboard Bottles



Bottle Selection



Bottles from  
Colored Cardboard



Master Pattern

This e-Book shows how to make the projects from different materials.



Paper



Paper Towel



Fabric



Adding Stickers

# Supplies and Tools



The supplies and tools you need for these projects are shown below. Additional supplies are suggested for specific projects.



The Bottle



White and Colored Paper



Paper Towels



3/4" (2cm) Masking Tape  
and Scotch Tape



Non-Stretch Fabric  
(used clothing works well)



String, Shoe Laces, 12" Pipe  
Cleaners, or Hair Elastics



Paper Clips



Pencil, Eraser and Ruler



Fabric and Paper Scissors

# Using Darts



The Master Pattern removes “V” shaped wedges from the paper. These wedges are called darts. Print the Master Pattern from the pattern on page 10. Or draw it by hand as shown on page 11.



1. Cut out a copy of the Master Pattern.



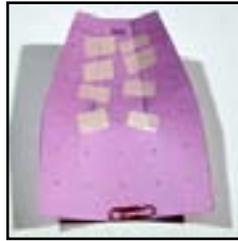
2. Put a short length of tape on one side of a dart just under the dotted line.



3. Pull the dart closed by matching the two dotted lines. Now press the tape to the other side of the dart.



4. Add more lengths of tape along the dart to keep it closed.



5. Repeat Steps 3 and 4 for the other dart.



6. Place a hair band on the dotted line between the darts.



7. Fold the top of the pattern over the hair band and tape it.



8. On each side of the darts, fold the pattern over the hair band, then tape it in place.

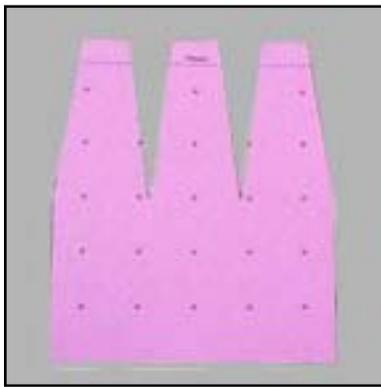


9. Place the paper over the top of the wine bottle and pull it down.

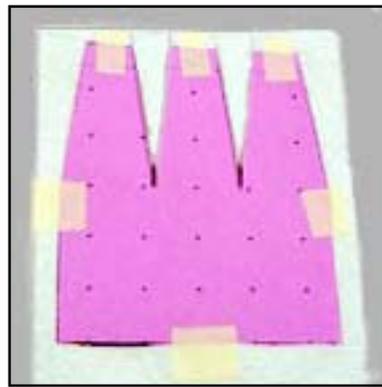
# Using a Paper Towel



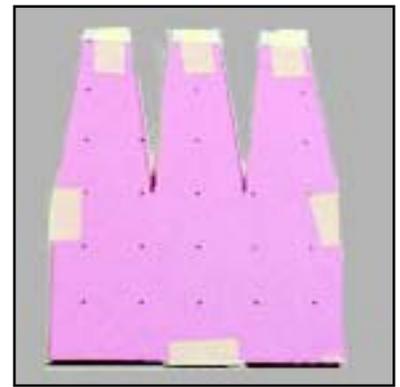
Copy paper is a little stiff so there is a point at the end of the dart. Paper towels are softer and more like fabric so there is less of a point. The steps below show how to use a paper towel.



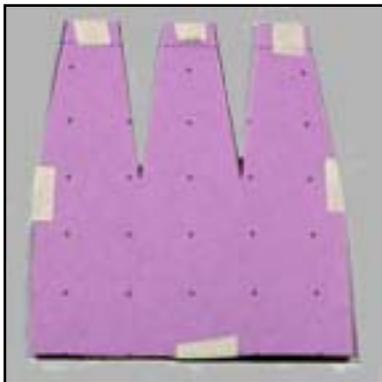
1. Make a copy of the Master Pattern and cut it out.



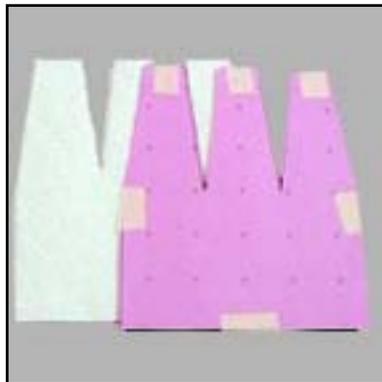
2. Tape the pattern to a sheet of paper towel.



3. Cut around the pattern except at the very top.



4. Now cut the top.



5. Remove the pattern from the towel.



6. Use the pattern to fold the towel down at the Waist, then tape the towel as described for **“Using Darts”**.

# Using Fabric



Fabric can also be used for Pattern Design projects without requiring any sewing. This example uses fabric cut from an old shirt and a pipe cleaner for the waistband.



1. Select some non-stretch fabric. It must be flat with no wrinkles.



2. Tape the pattern to the fabric, then cut the fabric as described for **“Using a Paper Towel”**



3. Remove the fabric from the pattern.



4. To prevent the fabric from fraying, tape the side and bottom edges of the fabric.



5. Tape the darts and add a waistband as described for **“Using a Paper Towel”**



6. To secure the waistband at the back, twist the pipe cleaner.

# Adding Stickers & Craft Goodies

With only one Master Pattern, you can create many different looks by changing the paper and stickers. Below are some possibilities. But the fun part of design is coming up with your own ideas. For creating Do-It-Yourself stickers and adding individual letters to your projects, see page 9.



Origami Paper



Origami Paper



Glitter Paper



Birthday



Congratulations



Thank You



Valentine's Day



St. Patrick's Day



Easter



Mother's Day



Father's Day



4th of July



Halloween



Thanksgiving



Christmas



New Year



Frozen Movie



Frozen Movie



Super Heroes



Super Heroes

## *Decoration Supplies and Tools*

Stickers come in a wide selection from many sources. Choose the ones you like best.

- The double-sided tape shown in the video is great for making Do-It-Yourself stickers.
- Tweezers come in handy for picking up and positioning small stickers.
- The letter alignment board in the video can be made from 6-1/2" by 8-1/2" (16.5cm by 21.5cm) stiff paper such as chip board.
- 6" by 6" (15cm by 15cm) Origami paper is a great size.



Tweezers &  
Double-Sided Tape



6-1/2" by 8-1/2"  
(16.5cm by 21.5cm)  
Letter Alignment Board



Astrobright's "Spectrum"  
is 8.5" x 11" in 25 colors.

6" by 6" (15cm by 15cm) Origami Paper



Colored Paper



Paper with Prints & Patterns



Glitter Paper

Making the Letter Alignment Board



1. Cut a piece of chip board 6-1/2" by 8-1/2" (16.5cm by 21.5cm).



2. Cut a second strip of stiff board 1" by 6" (2.5cm by 15cm), then tape it in the middle of the board.



3. On the strip from Step 2, mark the center and the sides of the Master Pattern.

## *Do-It-Yourself Stickers & Aligning Letters*



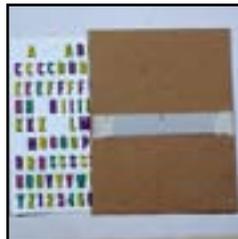
You can create your own stickers from greeting cards, magazines, or photographs by using double-sided tape. Sticker letters will allow you to spell out personal messages and use names.



1. Make sure the artwork will fit on a copy of the Master Pattern.

2. Cut the artwork out larger than you want it.

3. Put double-sided tape on the back of the artwork.



4. Trim the artwork, then carefully place it where you want it.

5. To keep letters in a straight line, you can use a guide made from stiff paper such as the one shown here.

6. Tuck the paper under the strip on the guide and move it to where you want the letters to appear.

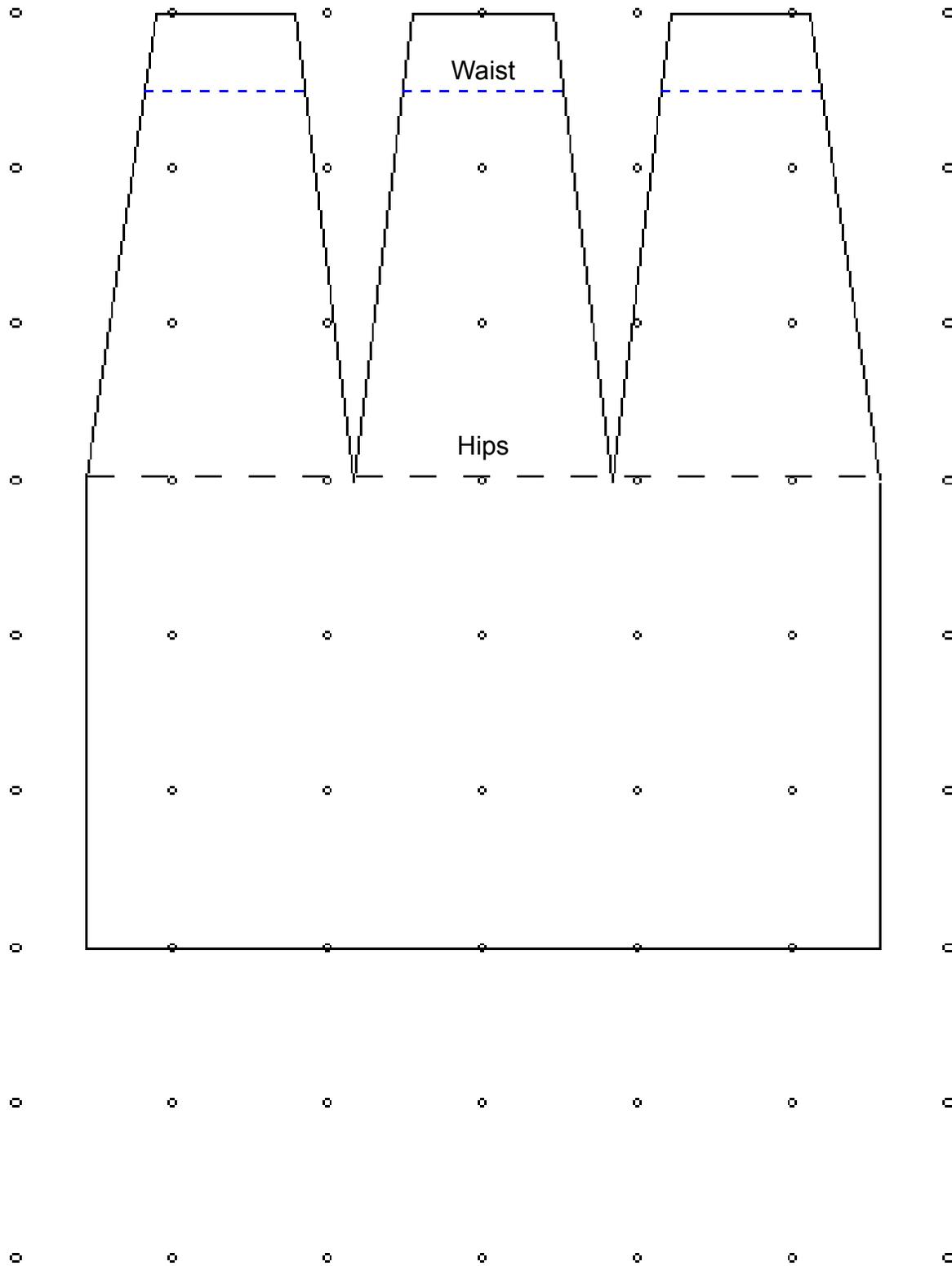


7. Put the first letter where you want it. This name is centered.

8. Add the additional letters following the edge of the strip on the guide.

9. Finish the name and add additional stickers to complete the project.

# *Print Master Pattern*

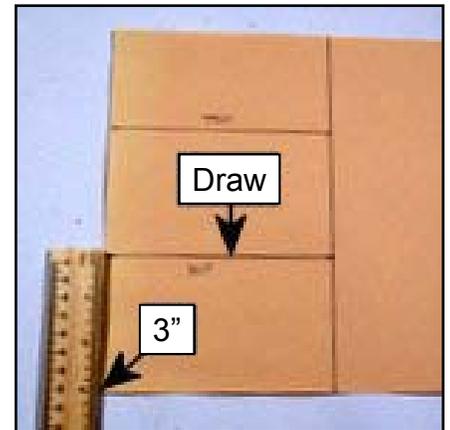
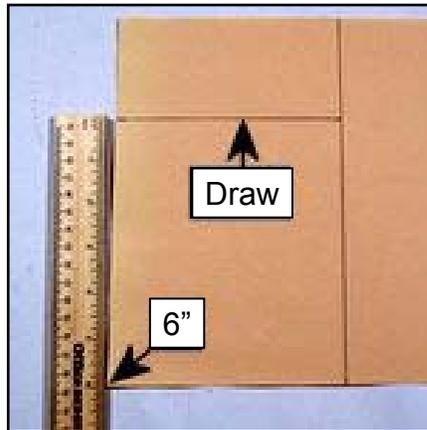
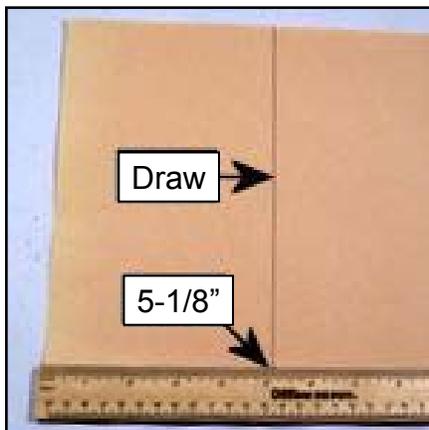


8" by 10" (25.4cm by 20.3cm)

## *Draw Master Pattern*

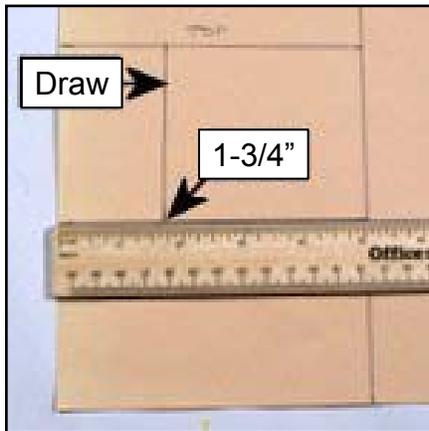


The Master Pattern has two darts for shaping. If you have access to a printer, use page 10 to print as many copies of the Master Pattern as you want. If you do not have a printer, follow the instructions below to create a Master Pattern. If you make the pattern out of stiff paper, such as poster board, you can make additional copies by tracing around the poster board pattern.

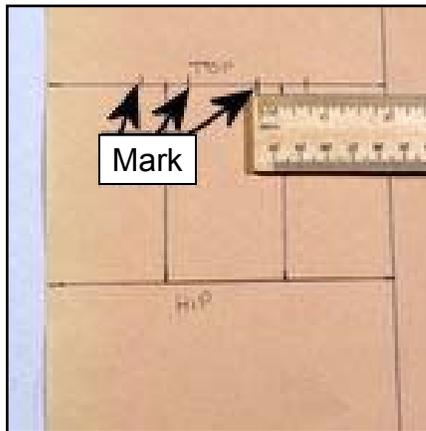


1. On a sheet of paper or poster board, measure from the bottom left corner 5-1/8" (13cm), then draw a line to the top of the paper.
2. Draw a second line that is 6" (15cm) up from the bottom of the paper. This is the top of the pattern.
3. Draw a line that is 3" (8cm) up from the bottom of the paper. This is the Hip Line.

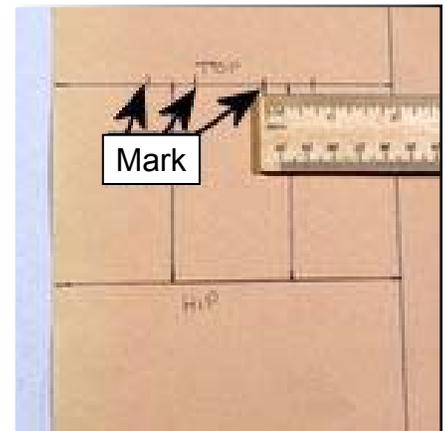
## *Draw the Master Pattern (cont'd)*



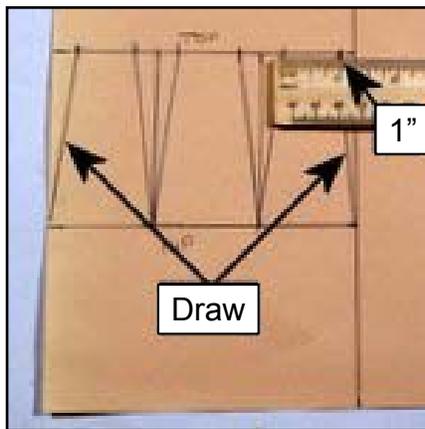
4. Draw a line between the top of the pattern and the Hip Line that is 1-3/4" (2cm) from the left side. This is the first Dart Center Line.



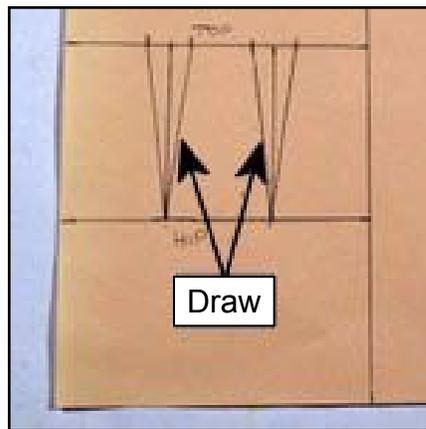
5. Draw a line between the top of the pattern and the Hip line that is 1-3/4" (2cm) from the first Dart Center Line. This is the second Dart Center Line.



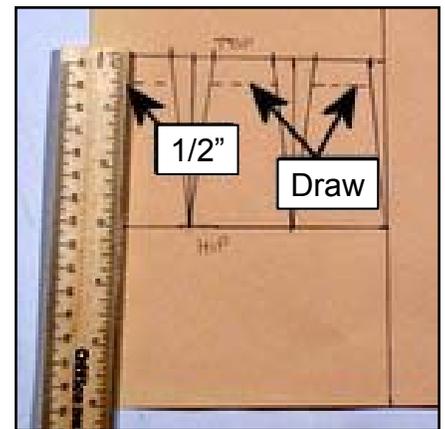
6. At the top of the pattern, make marks that are 3/8" (1cm) to the side of both Dart Center Lines. These marks are the Dart Width.



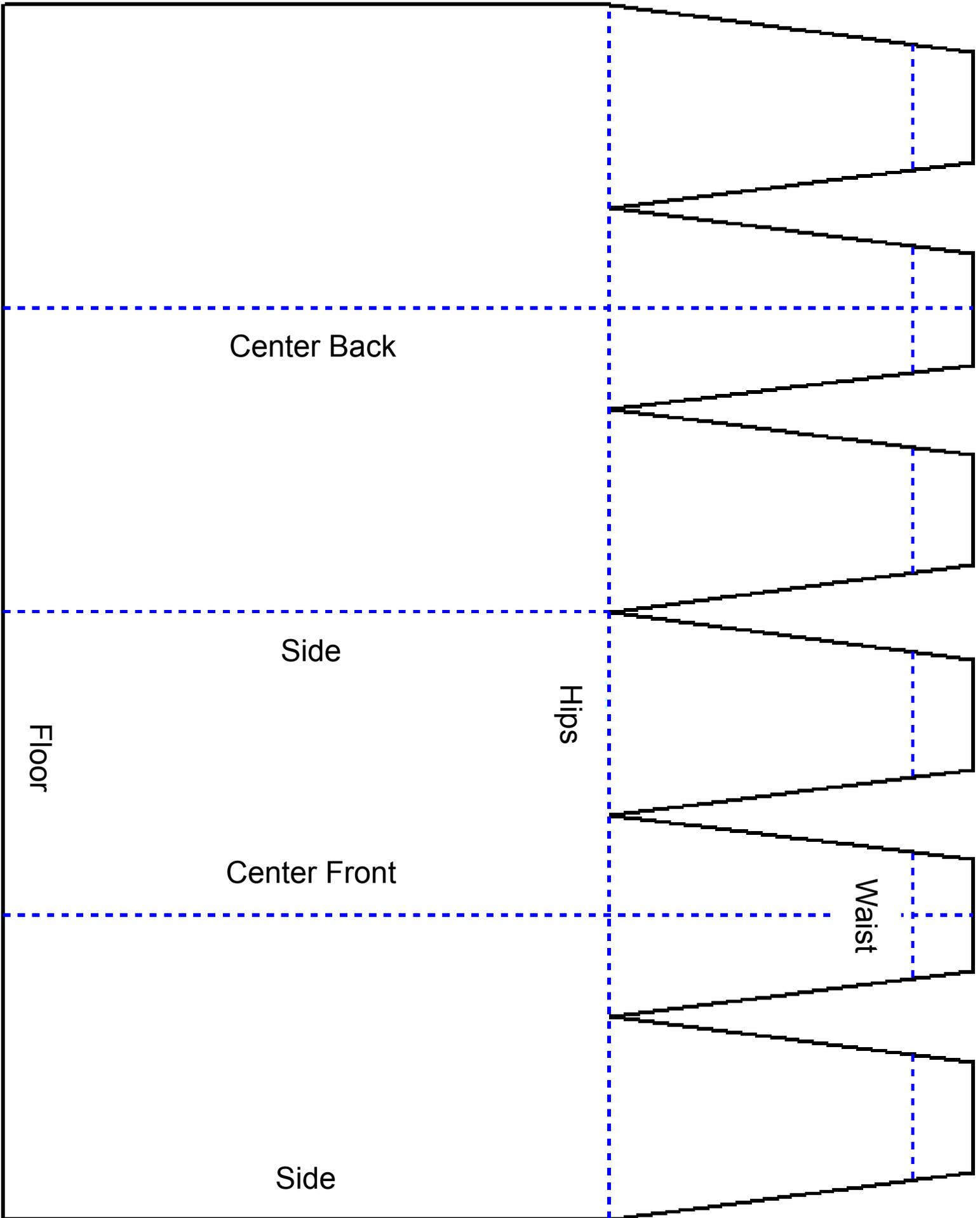
7. To finish the darts, draw lines from the Dart Width marks to the bottom of the Dart Center Lines.



8. On the top of the pattern make marks 1" (2.5cm) to the side of both darts. These marks are the Side Seam. Draw lines from these marks down to the sides of the Hip Line.



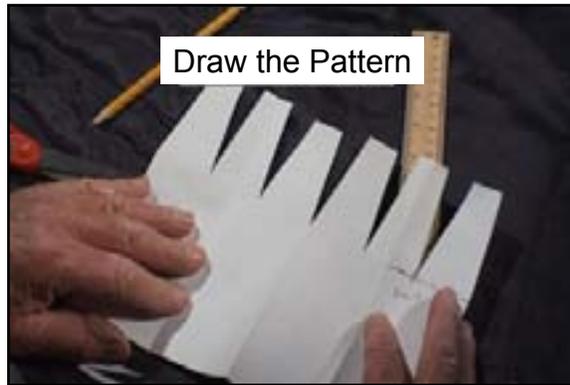
9. Draw a dotted line 1/2" (1.2cm) down from the top of the pattern. This is the Waist Line. The Master Pattern can now be cut.



# Creating a Cardboard Bottle

You can create the shape of a wine bottle from cardboard. Cardboard boxes work well or you may want to use colored cardboard. If you have access to a printer, print the pattern on page 13, then go to page 16.

## Draw the Pattern



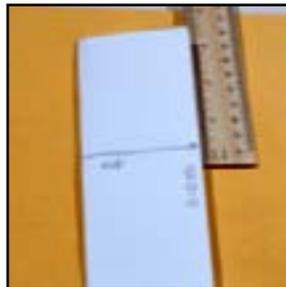
1. On a sheet of paper, draw a rectangle that is 10" (25.4cm) wide and 8" (20.3cm) high. Write "Side" on one side of the rectangle.



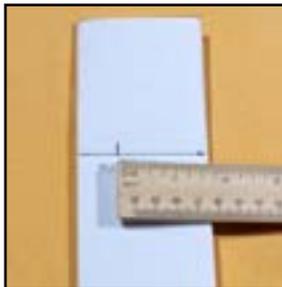
2. Cut out the rectangle, then fold the paper in half lengthwise so the word "Side" shows.



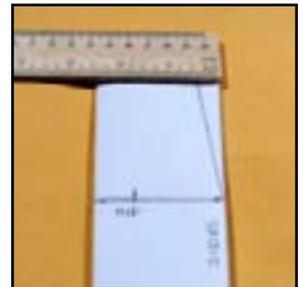
3. Fold the paper in half a second time with the word "Side" still showing.



4. Draw a line 3" (8cm) down from the top. This is the Hip Line.

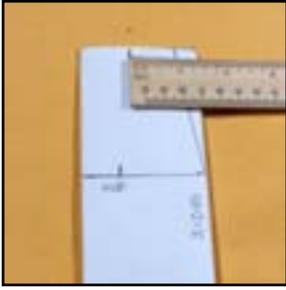


5. Make a mark on the Hip Line 1-3/4" (2cm) from the "Side" edge. This is going to be the Point of the Dart.



6. At the top of the paper, make a mark 3/8" (1cm) from the edge labeled "Side." Then draw a line from this mark down to the Hip line at the edge of the paper.

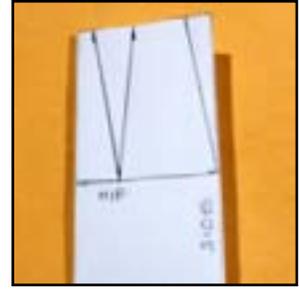
## *Creating a Cardboard Bottle (cont'd)*



7. At the top of the paper, make a mark that is 1" (2.5cm) from the mark in Step 6.



8. At the top of the paper, make a second mark that is 3/4" (2cm) from the mark in Step 7.



9. Connect the marks from Steps 7 and 8 to the Point of the Dart from Step 5. This is the Dart Shape.



10. Without unfolding the paper, cut out the Dart Shape and the line created in Step 6.



11. Unfold the paper which is now the pattern for the bottle. Proceed to page 16

# *Creating a Cardboard Bottle (cont'd)*

## **Making the Bottle**



If possible during Step 1, align the Hip line of the pattern with the crease in the cardboard where the lids close. If the cardboard does not have a crease, add one during Step 4.



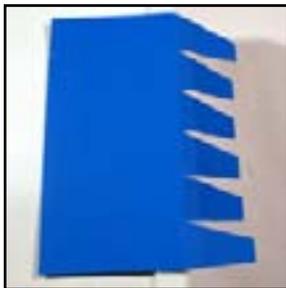
1. Tape the paper pattern to the cardboard.



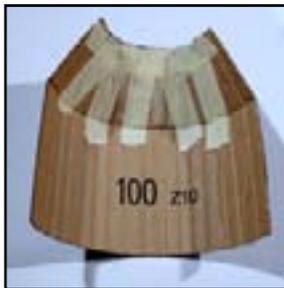
2. Roll the cardboard into a tube.



3. Cut around the pattern.



4. If the cardboard does not have a crease, place the cardboard on the edge of a table at the hip line, then bend the top over the edge.



5. Tape the darts closed from the inside. See the crease at the point of the darts?



6. To complete the bottle, tape the side closed. Now tape the outside of the darts closed.