

SPECTACULAR Skirts

Leader Guide

Style
ENGINEERS

Fashion
through science

WITH THIS ACTIVITY

- At a Glance
- Handout
- Challenge Question
- Patterns
- Evaluation



We are
Engineers!



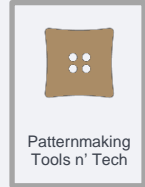
Movement
Improvement



Marvelous
Materials



Smart
Clothing



Patternmaking
Tools n' Tech

MODULE

Big Picture

Young designers will understand how to create different skirt silhouettes.

What's the goal?

Young designers will understand changing orientation and mentally manipulate shapes in both 2D and 3D. This activity develops spatial visualization, which is important to apparel designers.

Preparation

This activity uses a series of half-scale fabric skirts. Download each pattern file and sew the half-scale skirt. There are four skirts: flared, gathered, fitted, and peg. Create one set of skirts for each team.

Each team also needs at least one half-scale dress form. Half-scale dress forms are expensive to purchase. One solution is to make your own (see Making a Half-scale Dress Form). Also, you may borrow from a college

Materials

What they need: (per group)

- Half-Scale dress form
- Tissue paper
- Scissors
- Tape/pins
- Mood board for each skirt type (handout)

What you need: (per leader)

- Regular paper
- Pen/pencil
- Scissors
- Tape/pins
- Sample skirt - 1 for each type
- At-a-Glance reference sheet

Preparation Time: 2 Hours

Activity Time: 90 Minutes

Difficulty: Level 4



in your area, or watch for online bargains. You can find websites with instructions for making half-scale dress forms from plaster, duct tape, and paper mache. You may also substitute dolls that the young designers have on hand, but they will not be true half-scale.

Grouping

Young designers are in teams of 5-7, with one leader per group.

Let's get started!

In this activity young designers will make four tissue paper skirts: flared, gathered, fitted and peg.

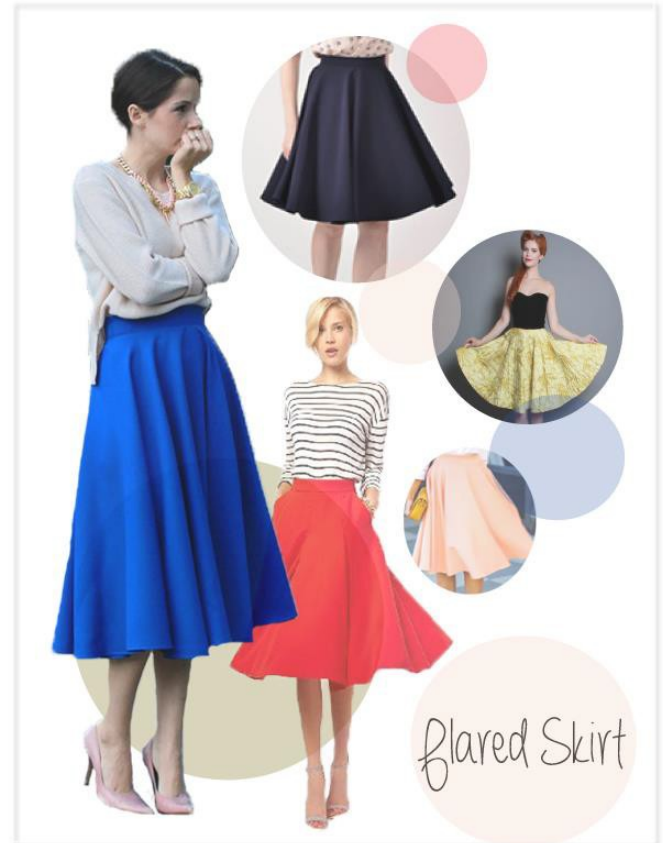
Flared Skirt Procedure

1. Point young designers to the flared skirt **mood board** in their notebooks:
2. Sample skirt:
 - a. Wrap the sample skirt around the dress form, without showing what its flattened shape looks like.
 - b. Ask the young designers to observe the way the skirt fits around the body.
 - **Discussion Point:** Where is the fabric close to the body? Where is it away from the body?

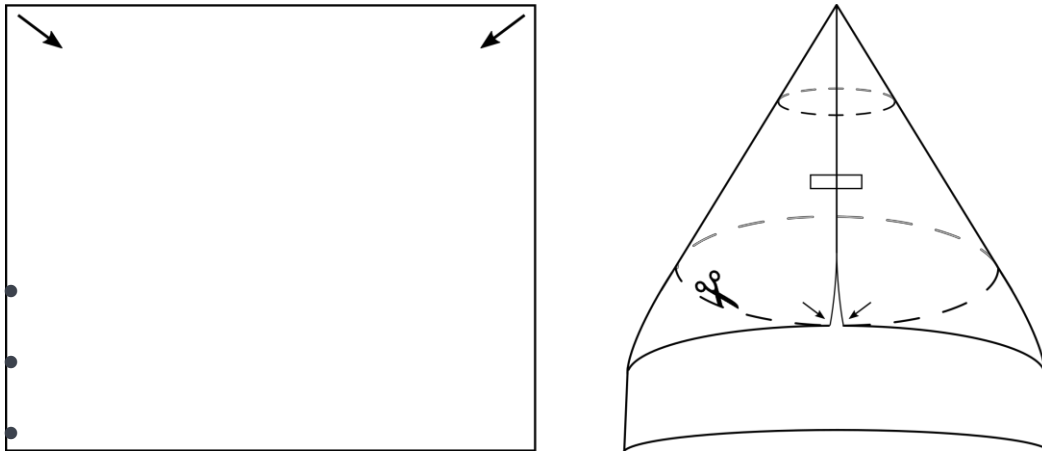
VOCABULARY

Mood board: a collage of images that young designers use to convey a rough idea of the direction a design might take.

Flared Skirt Mood Board



3. Young designers should discuss and try to make the skirt depicted on the dress form or in the picture using the tissue paper. Ask questions to probe for misunderstandings and help young designers where necessary.
4. If young designers are “stuck”, move to the prompts:
 - **Prompt: Model how to make a cone**
Roll a plain piece of paper (not tissue) bringing down the two corners and rolling it so that it makes a rough cone shape. Demonstrate how to trim the cone to look skirt-like, by cutting off the tip for the ‘waist’ and trimming the hem. Flatten this “skirt-like” model and observe the shape.



- **Alternative Prompt: Slash-and-spread**

Point out that the skirt should have a lot of fabric at the bottom and not at the top. A plain rectangle has almost the right amount of fabric at the top but not enough at the bottom. Start with a rectangle cut from plain paper. Cut the rectangle into strips and spread the bottom part out to show how to turn a rectangle into a flared skirt. (See diagram) Have them try this with tissue.



VOCABULARY

This shape is **flared**: a lot of fabric at the bottom and less on the top. Flared skirts can have varying levels of flare; skirts with a lot of flair are made from a full circle.

Flared Skirt Answer Key

There are three options for this skirt design, each progressively more flared.

Student Questions

Why is it not just a tube?

YOUR Answer: Using the same amount of fabric at the waistline as the bottom does not allow for the skirt's flared hem. It will either result in equal width all the way down the length of the skirt, making it too tight at the bottom or it will create excess fabric at the waistline. Think about how to vary the amount of fabric from the waist to the hem.

Q: Why is it not a trapezoid?

A: All of the extra fabric will be collected at one point of the skirt. The flare in a circle skirt is continuous around the design. Think about how to spread out the extra fabric.

Q: Should it be one or two pieces?

A: The circle skirt can be made with one or two pieces. Various arcs or circles like those shown here can be joined to make one skirt. Think about how the amount of flare would change as more is added to the circle.

Q: Why must the bottom edge be curved? A:

This is to allow for an even bottom hem. Illustrate this phenomenon by wrapping a piece of rectangular paper into a cone, and then trimming it evenly. Once a level base is achieved, flatten to show its 2D shape.

Flared Skirt Patterns



Smaller amount of flare than the other variations.

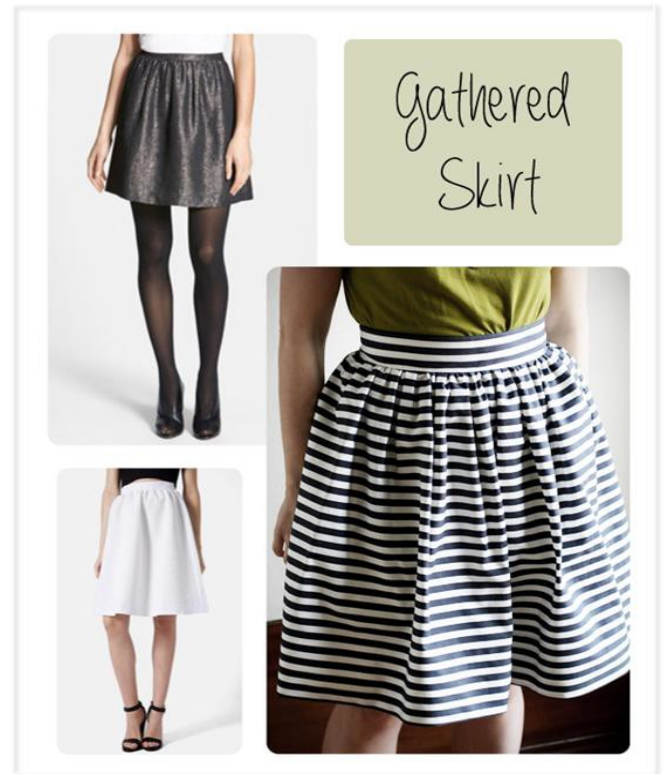


Flared / Circle skirt pattern with a little more flare.



This pattern has the most flare of the variations.

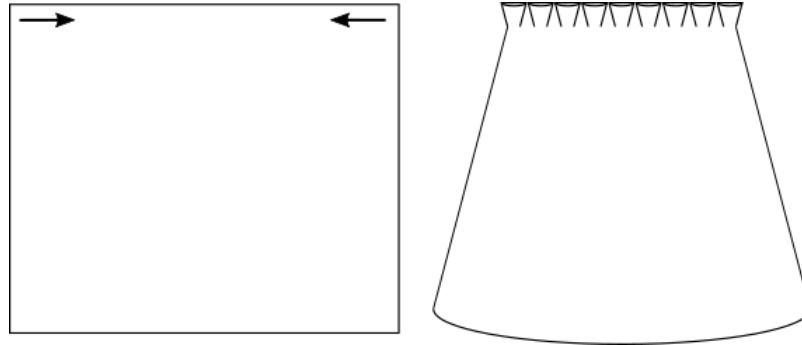
Gathered Skirt Mood Board



Gathered Skirt Procedure

1. Point young designers to the gathered skirt mood board in their notebooks.
2. Sample skirt:
 - a. Wrap the sample skirt around the dress form, without showing what its flattened shape looks like.
 - b. Ask the young designers to observe the way the skirt fits around the body.
 - **Discussion Point:** Where is the fabric close to the body? How is it held close to the body? Where is it away from the body?
3. Instruct the young designers to try to make the shape with the tissue paper.
4. Young designers should discuss what they see in the mood board and try to make the skirt on the dress form using tissue paper. Ask questions to probe for

misunderstandings and help young designers where necessary, and see At-a-Glance to answer common questions.

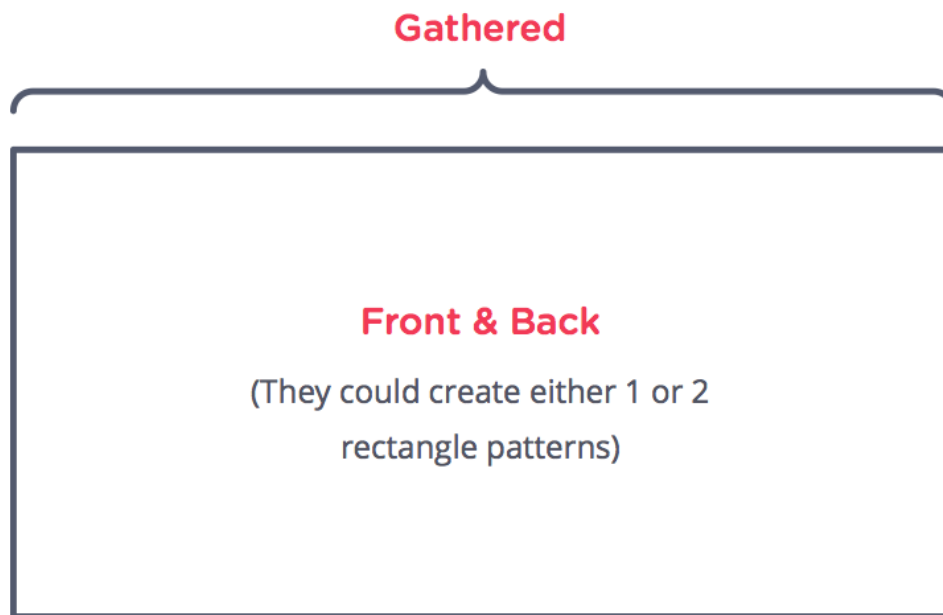


VOCABULARY

This fabric is **gathered**: scrunched in and sewn at the top. This is also known as a “dirndl” skirt.

Gathered Skirt Answer Key

The students should arrive at a rectangular shape pattern. The width may vary, the wider the fabric, the more gathers.



Q: Why will it not be the same design as the circle skirt? It seems like a similar silhouette.

A: The skirt is gathered together at the top and smooth at the bottom, rather than having a smooth waistline and wavy bottom. These gathers are what differentiate the two skirt designs. Think about what flat shapes are needed to create these two shapes.

Q: Is this skirt gathered and flared?

A: Many skirts use a combination of the two techniques. In a basic gathered skirt pattern, however, only gathering is used. Think about how the bottom edge of the pattern shape is affected by these two options.

Q: Why is it not a trapezoid?

A: While this shape does have the flat waistline and bottom for the gathered skirt, the additional fabric on either edge will create an uneven 3D hemline. All of the extra fabric will be collected at one point of the skirt. Think about how to keep the level waistline and hem without the extra fabric.

Q: Should it be one or two pieces?

A: The gathered skirt can be made with one or two pieces. Because it is a rectangular shape, the number of panels will not affect the shape. Think about the benefits of each option.

Fitted Skirt with Darts Mood Board

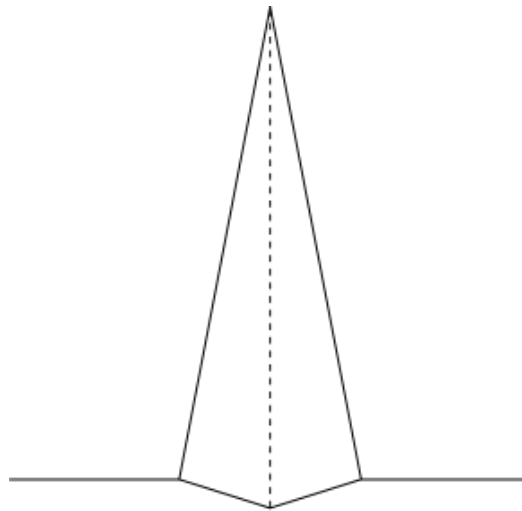


Fitted Skirt with Darts Procedure

1. Point young designers to the fitted skirt mood board in their notebooks.
2. Sample skirt:
 - a. Wrap the sample skirt around the dress form, without showing what its flattened shape looks like.
 - b. Ask the young designers to observe the way the skirt fits around the body.
 - **Discussion Point:** Where is the fabric close to the body? How is it held close to the body? Is it away from the body anywhere?
3. Instruct the young designers to try to make the shape with the tissue paper.
4. Young designers should discuss what they see in the mood board and try to make the skirt on the dress form using tissue paper. Ask questions to probe for

misunderstandings and help young designers where necessary. Reference At-a-Glance sheet to answer common questions.

- a. Emphasize how the waist and hip are different sizes and how there must be a way to remove the extra fabric at the waist.
 - **Discussion Point:** Is the waist the same size as the hip? What happens to the extra fabric?
 - **Discussion Point:** Did you fold in the same amount of fabric in the front and in the back? (Depends on dress form shapes but typically back darts are bigger than front darts).



VOCABULARY

This angled fold is called a **dart**: fabric is folded and sewn to a point in a triangular shape, to fit the body.

Fitted Skirt with Darts Answer Key

Q: Will the waist require the same amount of fabric as the hips?

A: No. This skirt is fitted in both places without any gathers, so the waist must be smaller than the hips. Think about where the extra fabric must go.

Q: When should darts be added?

A: It is important to fold in the darts after putting the tissue on the form. It would be hard to know exactly where to put the darts for a smooth waistline without having the form underneath.

Q: What is the purpose of the darts?

A: The fitted skirt with darts is different from other skirts because the waist is smaller than the hips without gathers or flares. Think about how this is achieved.

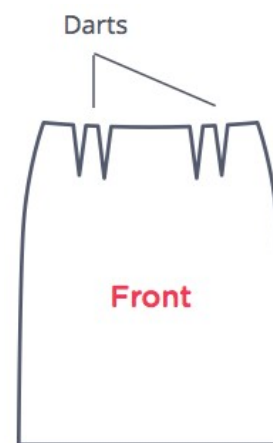
Q: How can both the bottom and the waistline be fitted without having gathers?

A: The bottom must be wider than the waistline. Rather than have an equal amount of fabric at both ends and altering the width as with the gathered skirt, think about how to have more fabric at the bottom than at the top.

Q: Should it be one or two pieces?

A: The fitted skirt with darts is generally made using two pieces, a front and a back

The solution is to fold in excess fabric, making “darts” at the waist. The curves at the side of the body could also be fitted with darts if they are making a one-piece skirt.





Peg Skirt Mood Board

Peg Skirt Procedure

1. Point young designers to the gathered skirt mood board in their notebooks.
2. Sample skirt:
 - a. Wrap the sample skirt around the dress form, without showing what its flattened shape looks like.
 - b. Ask the young designers to observe the way the skirt fits around the body.
 - **Discussion Point:** Where is the fabric close to the body? Where is it away from the body?
3. Instruct the young designers to try to make the shape with the tissue paper.
4. Young designers should discuss what they see in the mood board and try to make the skirt on the dress form using tissue paper. Ask questions to probe for

misunderstandings and help young designers where necessary. Reference At-a-Glance sheet to answer common questions.

5. Remind young designers of the flared skirt and how they added fabric on one end while keeping the other end tight.
6. If young designers are “stuck”, move to first prompt

- **Prompt: Modify the flared skirt**

Place flared skirt on dress form again.

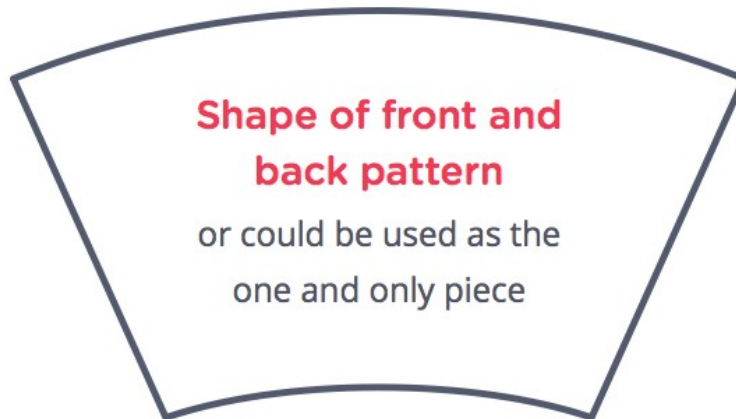
- *If I make folds in the hem of this skirt, I can bring it in around the legs. Can you see the shape the skirt is making?* (Pleat in the hem of the flared skirt so that it fits around the base of the dress form body.)
- *It looks somewhat like an upside down peg skirt. Do you think we could use a similar strategy to make a peg skirt?*

Peg Skirt Answer Key

The simplest peg skirt pattern shape is an upside-down version of the flared skirt. Again here, they can make a front and a back or they can use one piece for the whole skirt.

■
Gathers or tucks on top

to create the large amount of volume found on the top part of the peg skirt.



Q: Will the bottom require the same amount of fabric as the waistline and hips?

A: No. In this skirt design, the bottom is more fitted than the hip area. The waist is fitted however, and smaller than the hip. Think about how to achieve these relationships.

Q: Why does it not require darts or gathering?

A: Darts are sewn flat, and would not show the fabric folds we see at the waist. Gathering is one possibility, but it would not provide the smooth waistline pictured in the examples. Think about another kind of fabric manipulation that could achieve the correct look.

Q: Why is it not an upside down trapezoid?

A: Think back to the flared skirt. In the same way, all of the extra fabric will be collected at one point of the skirt instead of an even waistline. Curved seam lines allow for a level bottom edge. Think about how to manipulate the flare skirt pattern to make a peg skirt.

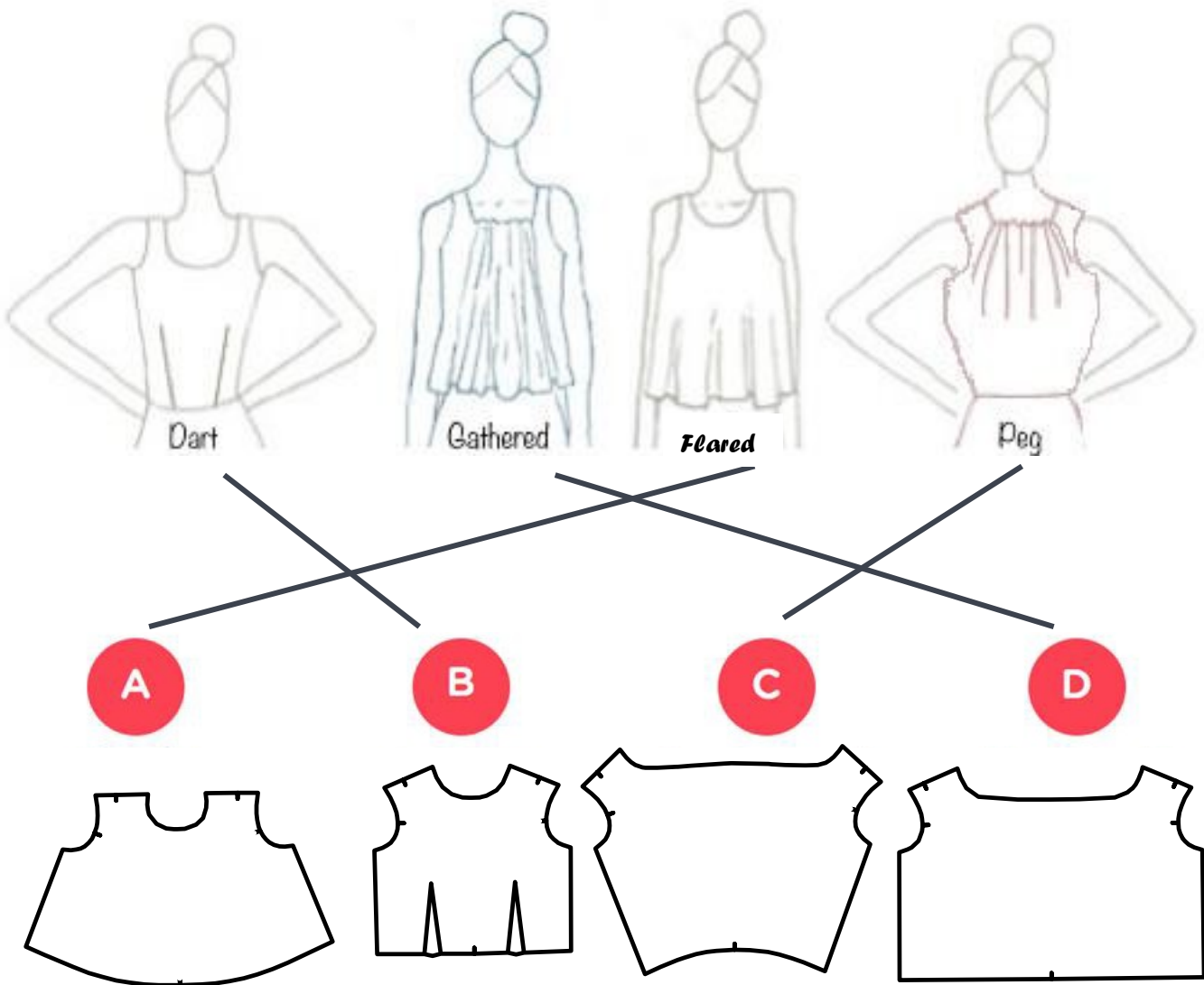
Q: Should it be one or two pieces?

A: The peg skirt can be made with one or two pieces. Two pieces will create a symmetrical waistline between front and back. One piece will create an arched waistline, with the higher part of the arc directly opposite the seam line.

Challenge Question Answer Key

Hand out the evaluation question

Match each of the following tops with the kind of draping they illustrate, applying the techniques learned in the skirt activity.



Wrap it Up

Flared skirt:

- What would it look like if there were more fabric at the bottom? Less fabric? How would the 2D shape change?

Gathered Skirt:

- What would the flared skirt look like if we gathered it? We can use it as the front half of a skirt (pin it into a gathered skirt front). How is this one different from the dirndl skirt? (The hem is fuller on the flared skirt).
- What would the flared skirt and the dirndl skirt look like if you spun around? (They can try it) (The flared skirt flies up/out, the Dirndl skirt makes a bell shape).
- If we cut out our flared skirt shape from striped fabric, how would the stripes look? (The stripes would angle in different directions at different points around the body -- they would not be vertical/horizontal).

Fitted Skirt with Darts:

- Is the waist the same size as the hip? What happens to the extra fabric?
- Did you fold in the same amount of fabric in the front and in the back? (Depends on dress form shapes -- but typically the back darts are bigger than the front darts.)

Take it Further

Take this activity one step further by looking at other skirt shapes on the internet or in magazines, and trying to analyze the pattern shapes that would create these skirt shapes. Look for skirts with yokes, pleated skirts, skirts with hi-low hems.