

Colonial America Decorative Arts

Pennsylvania Dutch Art Thematic Unit



Language Arts ~ Art ~ Math
Grades 3-4 & Grades 5-6

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Thank you for taking the time to check out these materials for the study of Pennsylvania Dutch Art through this thematic unit. This product contains the complete unit. I hope you'll find it exciting and educational!

Sandie Flynn

Pennsylvania Dutch

Overview of Language Arts Materials

The materials in this unit focus on Pennsylvania Dutch folk art. Students will read in a variety of types of informational texts to learn about and produce a project in the Pennsylvania Dutch style.

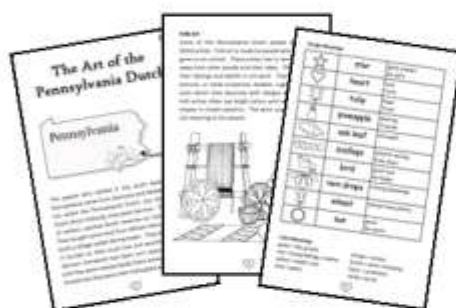
Here's what's included in these language art materials:



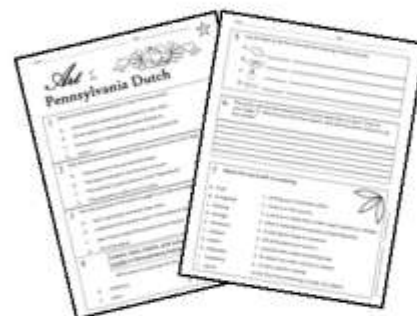
Parent Newsletter
Send home a month before the unit to solicit parental help in preparing materials.



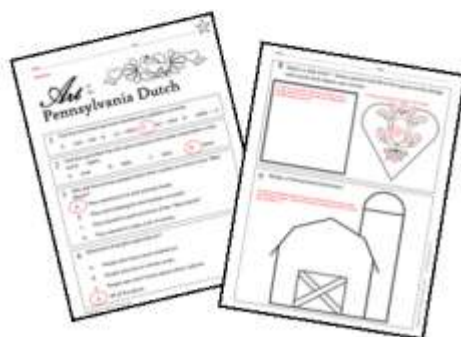
File 1: Sample lesson plans for using the art materials, including optional activities about stenciling.



File 2: Student Readers
Grades 3-4
Grades 5-6
Provide students with information about the German settlers in Pennsylvania, and their style of folk art.



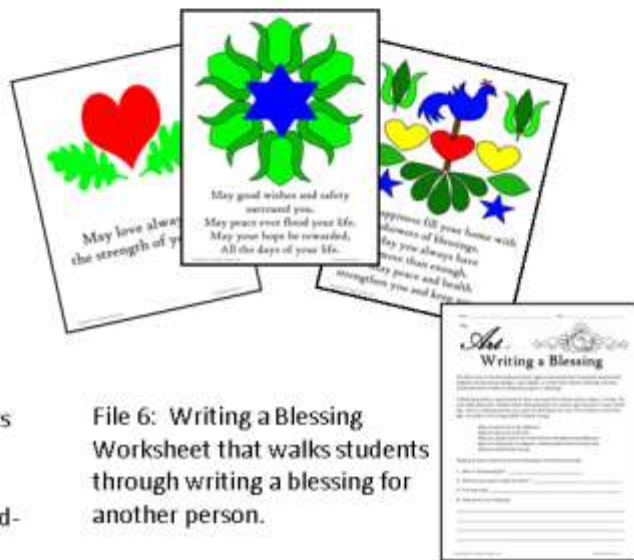
File 3: Reading Worksheets
Grades 3-4
Grades 5-6
Worksheets review information in the student reader in the format of a standardized test.



File 4: Answers to Reading Worksheets
Grades 3-4
Grades 5-6



File 5: Vocabulary Bookmarks
Grades 3-5— red-lined
Grades 5-6— blue-lined
Coordinate with Student Readers (file 2).



File 6: Writing a Blessing Worksheet that walks students through writing a blessing for another person.

Pennsylvania Dutch

Overview of Art Materials

The materials in this unit focus on Pennsylvania Dutch folk art. I like to teach my students about stenciling, as this was one of the techniques used by Pennsylvania Dutch artists, but the final art project does not use stencils. For that activity tracers are used. Files 2-5 deal with the art of stenciling. You can use them with this unit, use them on their own at another time or with a different art style, or skip them altogether.

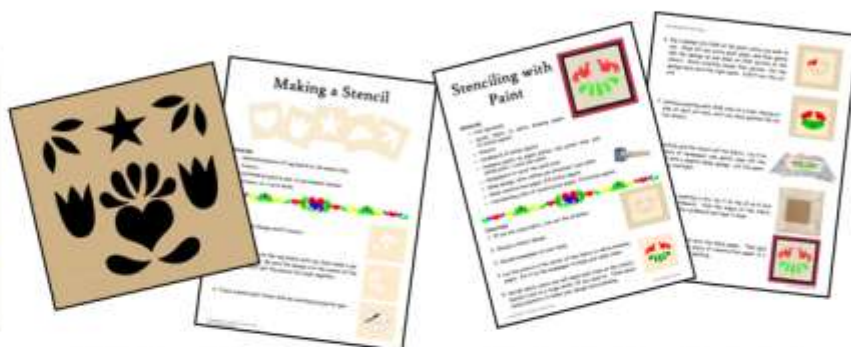
Here's what's included in these art materials:



File 1: Sample lesson plans for using the art materials, including optional activities about stenciling.



File 2: Information in 3 formats gives a brief description of stenciling. Choose one.
2a PowerPoint without narration.
2b PowerPoint with narration.
2c Print version (PDF) 2 pages.



File 3: Stencils in the Pennsylvania Dutch design that you can cut out and place at a center.

File 4: Directions for students to read and follow to make their own stencil.

File 5: Directions for students to read and follow at a center to make a stenciled painting.



File 6: Motif posters which explain the meanings of common motifs in Pennsylvania Dutch designs. Two versions: Grades 3-4, and Grades 5-6.



File 7: Art Prints showing the use of Pennsylvania Dutch motifs through painting, stenciling, and embroidery, on utensils, buildings, belongings, and documents.



File 8: Tracers Penn Dutch Designs (Same as tracers in math materials) Students use the colored tracers to lay out a design for their art project.



File 9: Student directions to complete their art project using markers on fabric or paper.

Pennsylvania Dutch

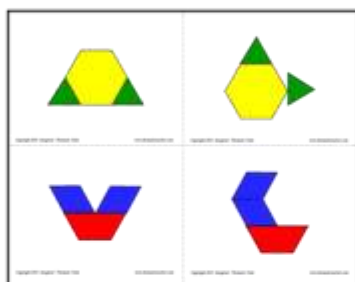
Overview of Symmetry Materials

The materials in this unit focus on symmetry in math, design, and in nature. The reading materials (file 3) come in two levels—Grades 3-4, and Grades 5-6. There are 2 different types of worksheet materials that cover the same material: worksheet format and interactive notebook format (file 4). Use only one. The worksheets can be completed in 1-2 periods. The notebook will take much longer. You may wish to get a parent to help you prepare the Design Tracers (file 9). They are very time-consuming to cut out, but once cut you can use them for years, and for a number of purposes. (These are the same tracers used in the art materials.) I recommend printing the puzzles, posters, and cards on photo or brochure paper—it's more expensive, but you only have to make them once for years of use. I print the readers on cover stock for the same reason.

Here's what's included in these materials:



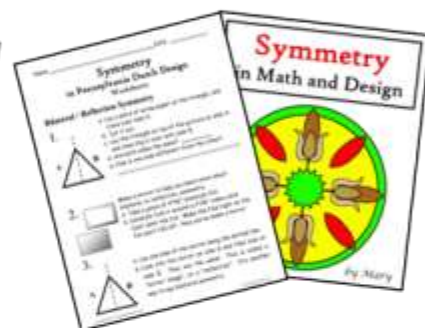
File 1: Sample lesson plans for using the math materials, and Common Core State Standards



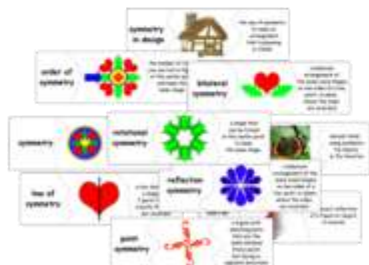
File 2: Mystery Property game using pattern blocks (OR the included cards). Use to introduce the properties of symmetry in a guess and check strategy.



File 3: Student readers discussing symmetry in art. Use the worksheets (file 4a) along with the readers. There are 2 versions—Grades 3-4, and Grades 5-6.



File 4: Worksheets OR Interactive Notebook. Use the worksheets with the student reader (file 3) OR use the interactive notebook by itself. (Worksheets take 1 day, notebook takes 1-2 weeks.)



File 5: Symmetry Vocabulary Matching Puzzles
Vocabulary, image, and definition puzzles for practice of new terms.



File 6: Symmetry in Design Posters
Demonstrate the use of symmetry in architecture and other areas of design.



File 7: Symmetry in Nature Cards

File 8: Symmetry Scavenger Hunt



File 9: Tracers Penn Dutch Designs (Same as tracers in art materials) Students use the colored tracers to create symmetrical designs.

Pennsylvania Dutch Art



Inside this Issue:

New Unit Unit of Study	1
Preparing Materials	1
Donating Materials	2
I Can Help	2



Special Points of Interest

- Pennsylvania Dutch Art
- Students will make an art project in the style of Pennsylvania Dutch folk art.
- Things to read
- Ways you can help

Pennsylvania Comes to Our Classroom

In a few weeks, we will learn about the Pennsylvania Dutch style of folk art. The German settlers of southeast Pennsylvania were the first European settlers to originate a unique genre of American art. They decorated utensils and household items with brightly colored birds, flowers, stars, and suns. Each piece represented qualities such as love, joy, hope, strength, and endurance, and each piece was constructed as a prayer or blessing on the person or item for which it was made.

Today this style of art is still very popular, and continues to be used to decorate household items. You may even have some in your own home! Would you look around the house with your child to see if you can find any of these brightly colored items? Perhaps your child could take a picture of it, or bring the item to school to share with the



By Anton Wilhelm, (Pencil drawing) via Wikimedia Commons.

class. The kitchen and the bedroom are the most likely places to find Pennsylvania Dutch art in our homes today. They were the most likely places back then, too!



Running Copies, Setting up a Center

We have a number of materials to prepare before beginning the unit. There are posters, art prints, and student reading materials to run off, laminate, and collate. If we are able to

find items from home, I would like to arrange them into a small museum in a corner of our classroom. There are also a number of items that need to be cut out. If you could help at home or at school with any of these tasks, please complete the form on page 2 and it return it to school as soon as possible. Thanks for all you do for us!



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Pennsylvania Dutch Art



Donations Needed: Time and Materials

There are many ways that you can help us prepare for our unit on Pennsylvania Dutch art.

Brochure or Photo Paper

We would like to run the art prints off on brochure or photo paper to improve the quality of the print. If you have paper you could contribute to the cause, you would improve the materials not just for your child, but for all the students in the future. We also need cover stock for the materials.

Stencils

A technique used in this genre was using stencils. I want to set up a classroom center where students will be able to experiment with making and using stencils. I have several stencils that need to be cut out for student use. An art knife or box cutter are the most effective tools for this job. If



you would be willing to cut one or more stencils, please let me know on the form below. If you have a knife we could borrow, that would be very helpful, too!

Muslin Fabric

Students will be completing a project in the Pennsylvania Dutch genre. One of the ways to make it more "authentic" is to complete the project on muslin fabric. If you have any remnants you could donate, or are willing to purchase some for us, that would be very useful. We need 3 yards in order for all the students to have a piece.

Books or Family Stories about Blessings

The folk art of the German settlers represented blessings or prayers. The students will learn more about the blessing genre as they learn about the symbols and motifs of the artists. If you have any books at home about blessings, or special family stories, would you consider sharing them with our class? It would be a great blessing to us!

Symmetry

A math unit on symmetry is part of this thematic unit. Students will be learning about bilateral/reflection symmetry, rotational symmetry, and point symmetry. Discussing symmetry, pointing it out as you visit places, and finding examples of it in your home will help your child develop the concepts necessary for math and design. We have a number of math and science materials to prepare for this unit, as well.



Symmetry in Nature



Students will create a piece of art in the Pennsylvania Dutch style which represents a blessing to others.

Here's how I can help!

I would like to help with the unit on Pennsylvania Dutch Art at home at school by

printing laminating cutting donating _____ lending _____

I can make _____

None _____ Phone Number _____



Parent Newsletter

Send home a month prior to unit to solicit parent help in preparing materials

Colonial America Decorative Arts

Pennsylvania Dutch Art

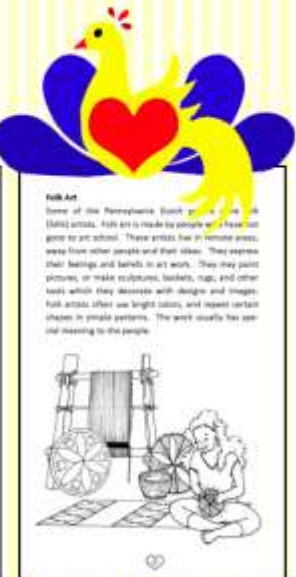
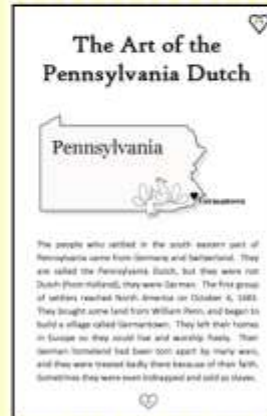
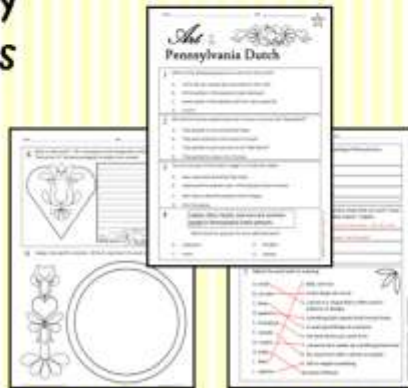
Language Arts Materials



Sample
Lesson Plans

Vocabulary
Bookmarks

Reading
Worksheets



8 Page Student Readers

Two Reading Levels: Grades 3-4 & Grades 5-6

Art of the Pennsylvania Dutch



Amish: AHM ish
a group of American citizens whose
ancestors came from Germany.
They have a very simple way of life.

bles: bles
to wish good on someone or some-
thing,
to protect or guard from evil

circular: SIR cue ler
in the shape of a circle

creator: cree ATE ur
someone who makes a brand new
thing that has never been made be-
fore

express: eks PRES
to tell or explain something



Red-lined, Grades 3/4

Vocabulary Bookmarks

Art of the Pennsylvania Dutch



Amish: AHM ish
a group of American citizens whose
ancestors came from Germany.
They have a very simple way of life.

creative: cree ATE iv
a person who sees things in a differ-
ent way, or is able to make new and
unique things

descended: dee SEND ud
born from a family; generations in a
family

embroidered: em BROID erd
pictures or designs stitched onto
fabric with thread

Germanic: jer MAN ik
something or someone coming from
Germany



Blue-lined, Grades 5/6

heritage: HARE uh tij
something that comes to you
through birth

hospitality: hos pit TAL uh tee
welcoming people into your home,
sharing your home with others

immigrate: IM uh grate
to come into a country where you
were not born

industrious: in DUS tree uhs
hard working

intricate: IN truh kut
complex design or pattern with
many little parts

medium: ME dee um
material used to make art such as
paint, clay, metal, yarn

motif: moh TEEF
a shape, picture, or design that is
often used in a style of art

rosette: roh ZET
a design in the shape of a circle,
often used by folk artists

stencil: STEN cuhl
a way to apply color to a surface
using a cut-out pattern

utensil: you TEN suhl
tools used in a kitchen or dairy

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The Art of the Pennsylvania Dutch

Pennsylvania

The people who settled in the south eastern part of Pennsylvania came from Germany and Switzerland. They are called the Pennsylvania Dutch, but they were Dutch (from Holland), they were German. The first group of settlers reached North America on October 6, 1683. They bought some land from William Penn, and began to build a village called Germantown. They left their homes in Europe so they could live and worship freely. Their German homeland had been torn apart by many wars, and they were treated badly there because of their faith. Sometimes they were even kidnapped and sold as slaves.

The Art of the Pennsylvania Dutch

Pennsylvania

The people who immigrated to the settlements of southeastern and central Pennsylvania came from the European countries of Germany, and Switzerland. Although they are called the Pennsylvania Dutch, they were actually of German heritage. In the 16-1700s, the English referred to all German people as Dutch! The first group arrived in their new country on October 6, 1683, purchased some land from William Penn, and began a settlement named Germantown. They came to the "New" World to escape the harsh conditions in their old country, which had been torn apart by many wars. They were Protestant Christians who were persecuted for their faith—some of them were captured and sold into slavery—and they wanted a place to live and worship freely.

These German Christians, from several different religious groups, developed two distinct ways of life in the "New" World. One

Design Meanings

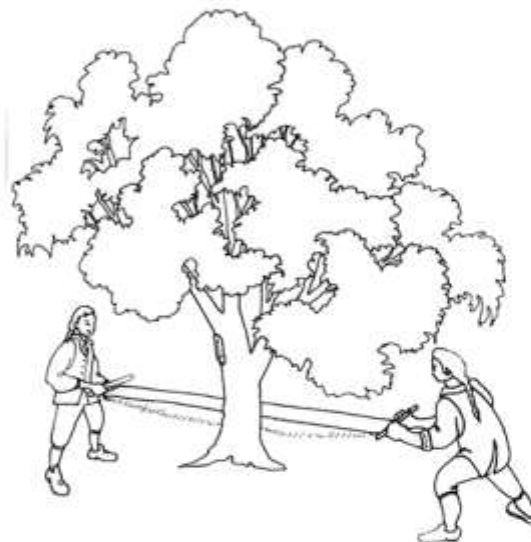
	star	good wishes be safe
	heart	love faith
	tulip	hope trust
	pineapple	sharing friends
	oak leaf	strength
	scallops	smooth sailing Easy days
	bird	good luck be happy
	rain drops	raining blessings
	wheat	always have plenty

The Art of the Pennsylvania Dutch

Pennsylvania



The people who settled in the south eastern part of Pennsylvania came from Germany and Switzerland. They are called the Pennsylvania Dutch, but they were not Dutch (from Holland), they were German. The first group of settlers reached North America on October 6, 1683. They bought some land from William Penn, and began to build a village called Germantown. They left their homes in Europe so they could live and worship freely. Their German homeland had been torn apart by many wars, and they were treated badly there because of their faith. Sometimes they were even kidnapped and sold as slaves.



In the "New World", these settlers split up into two different groups. One group, the "Plain People" (or the Plain Dutch) wanted to live a very simple life. They made everything they needed, but nothing more. The Amish (AHH mish) people come from this group. Today, they are still Pennsylvania farmers who do everything by hand. They don't use electricity or other modern tools. They cook their food over fire, and use candles and oil lamps for light. The other group, the "Fancy People" (or the Fancy Dutch) lived like people in other American colonies.

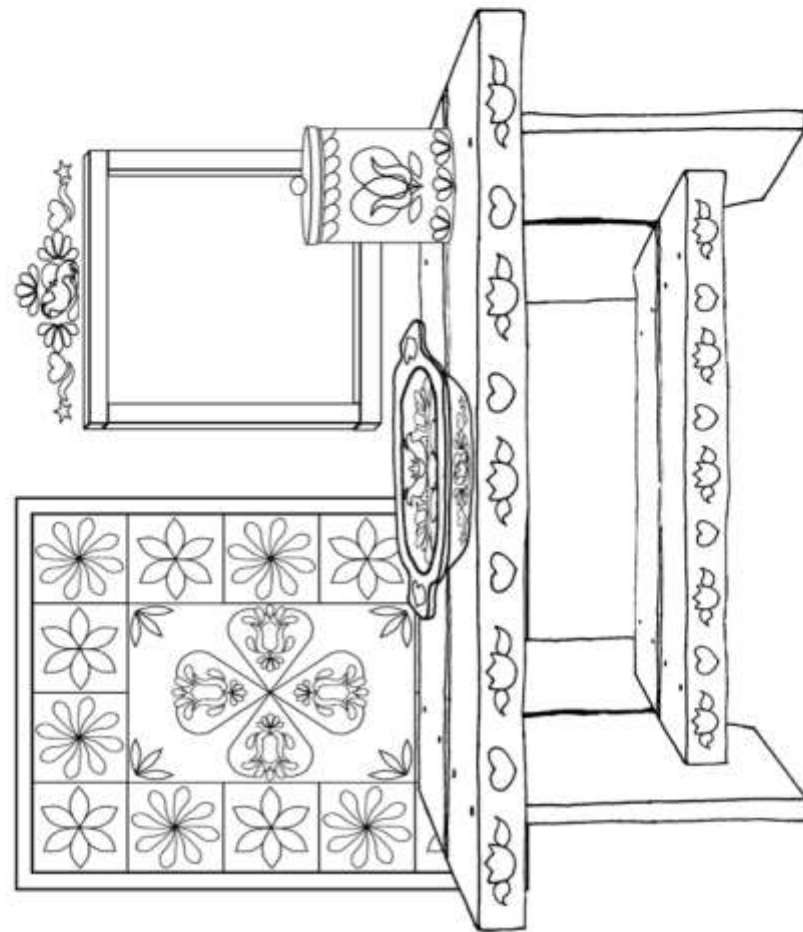
Student Reader

Grades 3/4, & Grades 5/6


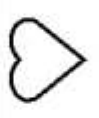



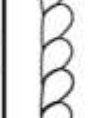



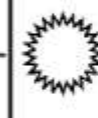
8pages (2 pieces of letter sized paper, 2sided)

Pennsylvania Dutch Designs

The colonists of the Pennsylvania Dutch settlements came from European countries famous for tulips, and they used tulips in many of their decorations. Leaves, stars, hearts, wheat stalks, flowers, rain drops, stars, and suns are common motifs (moh TEEFS), symbols that are repeated in many patterns and designs. They used these images from nature to reflect their worship of their Creator and their joy in what He made. Each collection of images had a special meaning; in fact, it's said that each work was a special prayer! These images were painted on walls, furniture, and later (after 1830) on the sides of barns! They were embroidered onto clothing, and sewn into quilts



Design Meanings

	star	good wishes safety
	heart	love faith
	tulip	hope trust
	pineapple	generous friendly
	oak leaf	strength
	scallops	smooth sailing
	bird	good luck happiness
	rain drops	showers of blessings
	wheat	plentiful
	sun	grow warmth

Color Meanings

green = life, growth

red = strong emotion, creativity

yellow = health, God

blue = peace

orange = success

brown = earth, friendship

black = protection

white = purity



Name _____ Date _____



Art of the



Pennsylvania Dutch



1 Which of the following sentences is a fact from the article?

- A. Some German people were punished for their faith.
- B. All the settlers in Pennsylvania loved making art.
- C. Some people in Pennsylvania still live a very simple life.
- D. A and C

2 Why did the German people leave their country to come to the "New World"?

- A. They wanted to live and worship freely.
- B. They were looking for the fountain of youth.
- C. They wanted to paint pictures of the "New World."
- D. They wanted to make a lot of money.

3 The main purpose of the table on page 5 is to help the reader

- A. learn new words and what they mean
- B. understand the symbols used in the designs
- C. learn how to draw Pennsylvania Dutch designs
- D. All of the above.





4 Leaves, stars, hearts, and flowers are common motifs in Pennsylvania Dutch art.

Which word is a synonym for "motifs"?

- A. collections
- C. colors

Name _____ Date _____

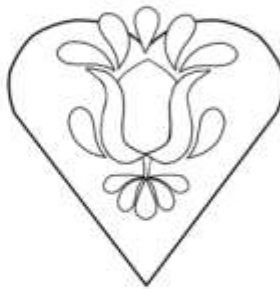
5 Use the table to tell the name and the meaning of these pictures.

- A.  _____
- B.  _____
- C.  _____
- D.  _____

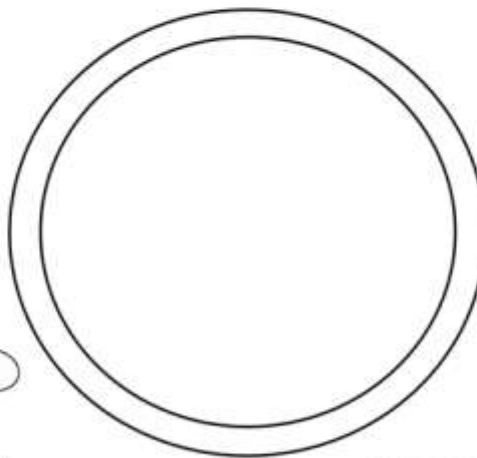
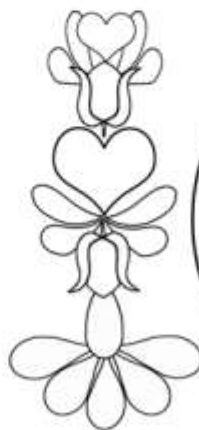
6 The author says the Pennsylvania Dutch artists made their art work "chust for nice" (page 7). What do you think that means? Why did the author choose to use this phrase?

Name _____ Date _____

8 What is a folk artist? Fill in the spaces on the design with a brainstorm list of words. Then write a 5-7 sentence paragraph to explain your answer.



9 Design a hex sign for someone. Write its meaning in the outer circle.



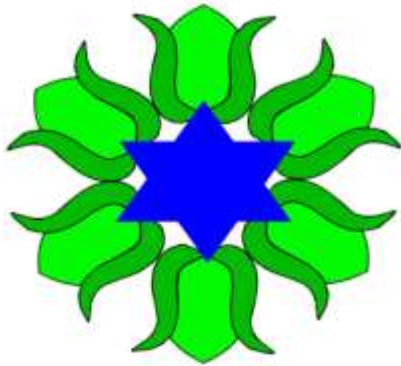
with its meaning.

- 1. sharing your home with others
- 2. move to a new country
- 3. a picture or shape that is often used in patterns or designs
- 4. what is inherited from parents and grandparents
- 5. to wish good things on someone
- 6. the land where your home is
- 7. someone who makes something new
- 8. far away from other cultures or people
- 9. an item used for cooking
- 10. the first time something is made, the original



Reading Worksheets

Standardized Test Format



May good wishes and safety surround you.
 May peace ever flood your life.
 May your hope be rewarded,
 All the days of your life.



May love always be the strength of your life.



May happiness fill your home with showers of blessings.
 May you always have more than enough.
 May peace and health strengthen you and keep you safe.

Writing a Blessing Worksheet

Blessing Posters

Name _____ Date _____

The Art of Writing a Blessing

The folk artists of the Pennsylvania Dutch regions decorated their household utensils with brightly colored natural designs. Each design, or motif, had a special meaning, and they combined them in ways to symbolize prayers or blessings.

A blessing presents a special wish or favor you have for another person, place, or thing. Parents often bless their children when they graduate from school, get married, or have a birthday. Here is a blessing written as a poem by Bob Dylan for one of his children on his birthday. He made it into a song called "Forever Young."

*May you grow up to be righteous.
 May you grow up to be true.
 May you always know the truth and see the light surrounding you.
 May you always be courageous, stand upright and be strong, and
 May you stay forever young.*

Today you have a chance to write a blessing for someone you know!

1. Who is the blessing for? _____
2. What do you want to wish for them? _____
3. For how long? _____
4. Now write it as a blessing:

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Colonial America Decorative Arts

Pennsylvania Dutch Art



Motif Posters

Pennsylvania Dutch Art
with Tracers, Markers, Fabrics



Materials:

- 1. One apron
- 2. Sewing fabric, 10 inches square
- 3. Colored markers, permanent Dutch design
- 4. Paper
- 5. Washable fabric glue
- 6. Cotton embroidery floss (12 possible)
- 7. Sharp construction paper, 8 1/2 inches square
- 8. Colored construction paper, 8 1/2 inches square
- 9. Pins
- 10. Scissors

Directions:

1. Lay your fabric on top of an 8 inch square piece of card board. Fold the edges of the fabric right over the back of the cardboard and tape from back. Sew your name on the cardboard.
2. Draw your design using the markers on the fabric-covered cardboard. Use the cardboard as a guide when you draw.
3. Color each piece with markers.
4. Place a piece of construction paper (8 1/2 inches square) with a side that complements the color of your artwork.
5. Spread glue over the back of a piece of fabric on construction paper (8 1/2 inches). Lay it on top of the colored piece of paper, center it and press it flat.
6. Fold your cardboard over. Spread glue over the back of the paper. Turn it right side up, center it on the fabric paper and press it flat.



Art Prints

The Art of Stenciling



Stenciling is a decorative art that has been used for centuries. It involves creating a design by cutting out a pattern in a sheet of material, such as paper or fabric, and then applying color to the design. Stenciling is a popular art form in many cultures, and it has been used to create everything from simple patterns to complex murals.

Stenciling is a versatile art form that can be used in many different ways. It can be used to create patterns for fabric, paper, or other materials. It can also be used to create murals or other large-scale designs. Stenciling is a fun and easy way to create beautiful art, and it is a great way to learn about different cultures and art forms.

Making a Stencil



There are many different ways to make a stencil, but the most common way is to cut out a design from a sheet of material. This can be done with a pair of scissors, a utility knife, or a stencil cutter. Once you have your stencil, you can use it to create a design by applying color to the design.

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Stenciling Information



May your home be filled with
showers of happiness,
love,
and plenty!

Art Project on Muslin or Paper




Two Reading Levels: Grades 3-4 & Grades 5-6

Art Prints



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Public Domain, via Wikimedia Commons



Public Domain, via Wikimedia Commons



Public Domain, via Wikimedia Commons



11 @ 8.5x11

THE ART OF STENCILING

The Art of Stenciling



A stencil is a piece of paper, metal, wood, cardboard, or plastic with holes cut in it to create letters, shapes, or images. The stencil is laid on paper, canvas, floor, or walls, and paint is pressed through the holes using a paint brush or sponge. When the stencil is lifted off, the image remains. People have been using stencils in their artwork for thousands of years.

The History of Stenciling

The first stencil painters probably lived in canyons and caves. These ancient artists laid their hands against the rock walls around them, and sprayed pigment onto the rock through bone tubes. Their hands blocked the paint and left a blank space behind. Can you find the stenciled hands and birds on the rock?



Rock and Bone Stencils on Caving
Archaeology. Photo: Wikimedia Commons. See
Wikimedia Commons.

As time progressed, stencil designs became more intricate:

- The Egyptians used stencils to decorate tombs and walls.
- The Greeks used stencils to surround mosaics.
- The Romans used stencils to letter signs, advertising sports events.
- People on Fiji Island used stencils to decorate bark cloth.
- Eskimos used stencils cut from seal skins.

The Chinese invented a new kind of stencil paper around 105 AD. That's when the art of stenciling really began to grow. They used the stencils to mass-produce images of Buddha, and clothing stenciled with fine designs became very popular with wealthy people.

The Japanese created delicate stencils. They discovered a way to hold small stencil pieces together with human hair, and strands of silk. They exported their beautiful work across the trade routes to Europe, where the people there began to use the technique as well.



In Europe, stencils were used to make beautiful religious paintings and decorate hand-printed books. In the 1700-1800s playing cards, wallpaper, and fabric were made with stencils. The people of Germany, who immigrated to North America, brought their art technique with them. They used stencils to paint their walls, furniture, floors, barns, and important papers. Sometimes artists would travel from village to village to decorate houses for pay.

Today people use stencils for the same tasks—decorating buildings, furniture, walls, and floors. Stencils allow people who may not be very artistic to make paintings that look quite professional, but famous painters like Pablo Picasso, Joan Miró, and Henri Matisse also used this technique to create very intricate paintings.

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You can buy stencils with several layers which allow you to use different colors of paint. One layer of the work is painted and allowed to dry. Then another stencil is laid on top of the first and painted with a different color, continuing until the painting is complete. The final result is a beautiful, professional-looking piece of art.

Making a Stencil

Stencils can be used over and over again to create the same pattern or design. They can be used by amateurs to achieve a professional look. The military uses them to label containers and signs.

DANGER - KEEP OUT

Design: Egan. Photo: © iStockphoto.com/Photo Credits by iStockphoto.com

Making a stencil is harder than it looks, especially if it's going to have several shapes in it. The picture is made by cutting out the positive space of the image—the part of the image that gets your attention. For example, if you want to make a stencil of a star, you draw the star on the stencil media, and then cut it out. But you can only cut from inside the star! You are probably used to cutting away the background, that's called the negative space, so it can be a little tricky at first.

If an image has many parts to it, the cuts in a stencil often have to be connected to each other with negative space. Look at the letters in the stenciled sign above—some of the letters have small gaps between their parts. If you tried to cut out the negative space of the letter "D", for example, the space in the middle would fall out. That space is called an "island". There are small gaps which hold that space in place. They are called "bridges".



Photo: © iStockphoto.com/Photo Credits by iStockphoto.com



In order to use a stencil over and over again, it has to be strong and you must be able to wipe it clean. Laminated paper and cover stock work well, but you can also use plastic paper sleeves. Freezer paper makes a good stencil to use on fabric, but you can only use it once! Old marla files work well, too.

You can cut a stencil with a pair of scissors, but for difficult, intricate designs, an art knife may work better.



Stencils and Design. Stencility. Web: January 19, 2015. <http://www.stencility.com/stencility.php?page=printer>

Learn the Basics of Stencil Design. Royal Design Studios. Web: January 14, 2015. <http://www.royaldesignstudios.com/basicsfornewbies.html>

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The Art of Stenciling

Print Version

Power Point Version-With Narration

and Without

Making a Stencil



Materials

- laminated pieces of tag board or old manila files
- tracers
- overhead projector pen, or permanent marker
- scissors, or x-acto knife



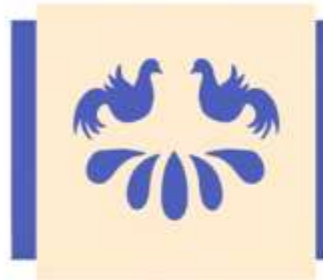
Directions

1. Choose some design motif tracers.
2. Lay the tracers on the tag board until you have made a design that you like. Be sure the design is in the center of the tag board. Don't put the pieces too close together.
3. Trace around each tracer with an overhead projector pen.



Making a Stencil Page 1

4. Slightly bend the tag board so that you can cut a slit in the middle of each shape of your design.
5. Push the scissor point through the slit, and CAREFULLY cut out the inside shape. Don't cut anything outside of the shape.
6. Clean up your mess.



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Stenciling with Paint



Materials

- iron (optional)
- muslin fabric or white drawing paper, 12 inches square
- stencils
- cardboard, 8 inches square
- tempera paints on paper plates: red, green, blue, and yellow paint, 1 color per plate
- newspapers to cover the work area
- damp sponge, with clothes pin attached, 1 per plate
- black construction paper, 8.5 inches square
- coordinating color of construction paper, 9.5 inches square



Directions

1. If you are using fabric, iron out the wrinkles.
2. Choose a stencil design.
3. Spread newspaper on your desk.
4. Lay the stencil in the center of the fabric or white drawing paper. Put it on the newspaper to keep your desk clean.
5. Decide which colors you will make each item on the stencil. Quickly color in a rough draft, IF you need to. Think about using asymmetry to make your design more pleasing.



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Stenciling with Paint, Page 2

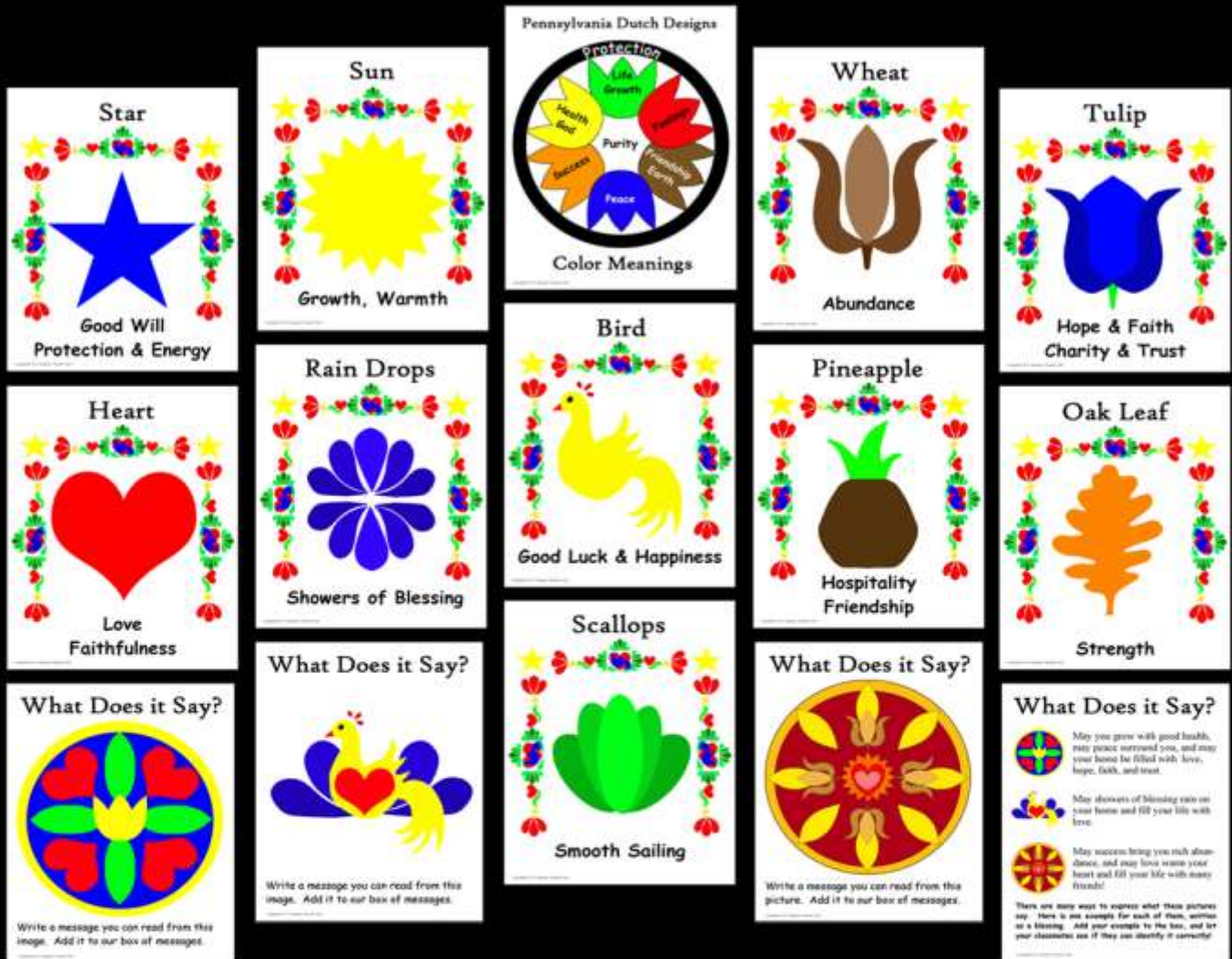
6. Dip a sponge into ONE of the paint colors you wish to use. Wipe off any extra paint globs, and then gently dab the sponge up and down on ONE section of the stencil. Work carefully inside that section. Put the sponge back onto the right plate. DON'T mix the colors!
7. Continue painting with ONE color at a time, staying inside of each cut area, until you have painted the entire stencil.
8. Carefully pull the stencil off the fabric. Lay it on a piece of newspaper and gently wipe off the paint with a slightly damp sponge. Let the painting dry overnight.
9. After your painting is dry, lay it on top of an 8 inch piece of cardboard. Fold the edges of the fabric tightly over the cardboard and tape it down.
10. Glue the cardboard onto the black paper. Then glue the painting onto a piece of construction paper in a color that suits your painting.



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Stencil Center Materials w 6 Pennsylvania Dutch Stencils



Pennsylvania Dutch Motif Posters 8.5 X 11

Pennsylvania Dutch Art

with Tracers, Markers, Fabric

Materials

- iron (optional)
- muslin fabric, 10 inches square
- colored tracers, Pennsylvania Dutch design
- pencil
- cardboard, 8 inches square
- colored markers (permanent ink, if possible)
- black construction paper, 8.5 inches square
- colored construction paper, 9.5 inches square
- tape
- paste
- glue

Directions

1. Lay your fabric on top of an 8 inch square piece of cardboard. Fold the edges of the fabric tightly over the back of the cardboard and tape them down. Write your name on the cardboard.
2. Create your design using the symmetry tracers. Lay the



Handmade Dutch Art Paper with Tracers, Markers, & Paper—Page 2

3. Trace around each piece with a pencil.

4. Carefully, color each piece with markers.

5. Choose a piece of construction paper (9.5 inches



Pennsylvania Dutch Art

with Tracers, Markers, Paper

Materials

- white or Manila construction paper, 8 inches square
- colored tracers, Pennsylvania Dutch designs
- pencil
- colored markers (permanent ink, if possible)
- black construction paper, 8.5 inches square
- colored construction paper, 9.5 inches square
- paste



Handmade Dutch Art with Tracers, Markers, & Paper—Page 3

3. Color each piece with markers.

4. Choose a piece of construction paper (9.5 inches square) with a color that compliments the colors in your artwork.

5. Spread paste over the back of a piece of black construction paper (8.5 inches). Lay it on top of the colored piece of paper, center it, and press it flat.

6. Turn your artwork over. Spread paste over the back of the paper. Turn it right-side-up, center it on the black paper, and press it flat.

7. Clean up your work area, and put all your materials away.



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Art Project
Students read and follow directions to
complete a project in the genre

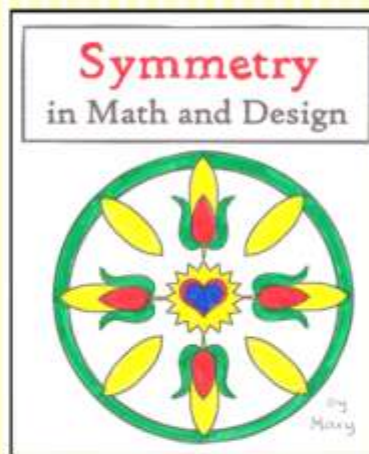


Colonial America Decorative Arts

Pennsylvania Dutch Art



Matching Puzzles



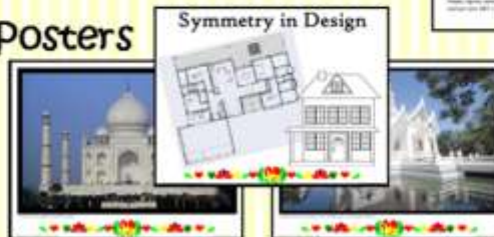
Interactive Notebook

Symmetry Materials



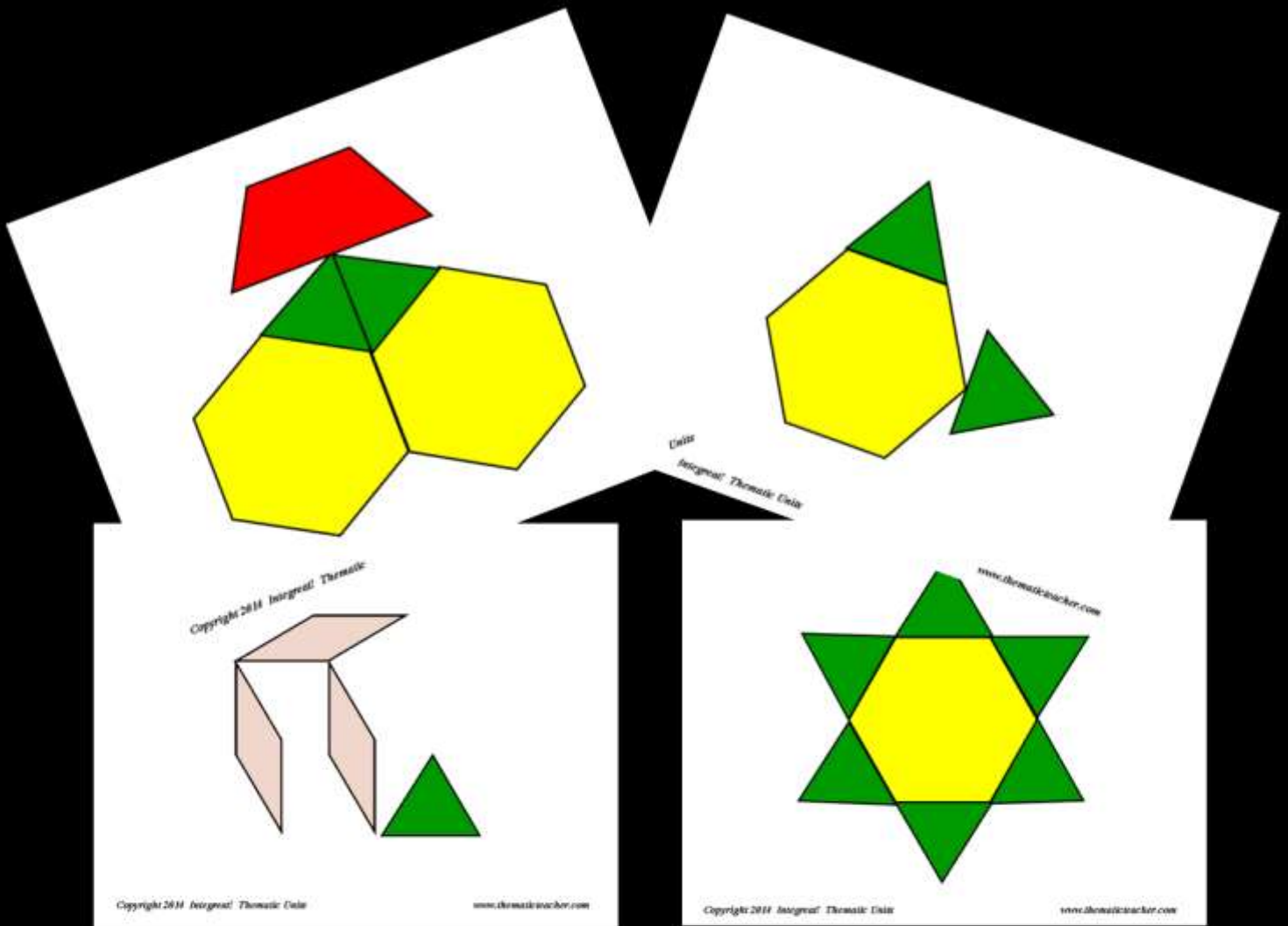
Symmetry in Nature Cards

Posters



8 Page Student Readers

Two Levels: Grades 3-4 & Grades 5-6



Mystery Property Game



Scavenger Hunt


Scavenger Hunt—Symmetry

Directions: Hunt for the following items. You may only pick up loose items, or things you find on the ground. Write down what you find. Good luck, and have fun!

Date _____

1. 3 items with bilateral symmetry _____
2. 1 item with rotation symmetry _____
3. 4 items that are asymmetrical _____
4. 1 item with reflection symmetry _____
5. 1 item with 5 orders of symmetry _____
5. 2 items with 1 line of symmetry _____
7. 1 item with 2 orders of symmetry _____
8. 1 item with 2 lines of symmetry _____
9. 1 surprise item _____
10. BONUS: 1 item with point symmetry _____

Name _____


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Symmetry

Pennsylvania Dutch Design



Symmetry

Symmetry (SM at the S) is a shape, or a group of shapes or images, that have a reflection, or a mirror image, on opposite sides of a line, plane, or point. Look at the design. Lay your pencil down the center, from top to bottom. Do you see how each side of the pencil shows the same design, but in reverse?

Shapes, figures, patterns, pictures, and even people, can be symmetrical (SM MET in suit). This triangle is symmetrical. If you

Draw a line down the center of the triangle you can see that side A and side B are really the same size and shape. You can prove this:

- Trace one side B on another piece of paper and cut it out.
- Lay it on side A of the picture and then flip it over to side B. You'll see it fits perfectly, of course. This is both and (SM LAT or SM MET in suit) symmetry ("S" side!).

There is another way you can show the shape is symmetrical. Take a piece of aluminum foil that is 4 inches by 6 inches. Stamp it very flat so you don't dent it. Fold the foil around a 3x5 index card and tape it on the back. Now you have a mirror.

- Lay one side of the mirror along the dotted line.
- Look into the mirror and then look at side A. They are the same! This is called a "mirror image." It's another way to see bilateral symmetry.
- Move the mirror back and forth. What happens to the image as you do this? Why do you think this happens?

Lines of Symmetry

An image can have more than one line of symmetry. Look at this equilateral triangle. You can divide it three different ways, and each way divides the original triangle into two identical, but reversed, triangles. Check it out with your mirror.

How many lines of symmetry can you find in each image below? Use your mirror to find your answers. (Check your answers on the back page.)



This type of symmetry is often called "reflection" symmetry, because of how it appears to reflect, as in a mirror.

There are many kinds of reflection symmetry in nature. Have you ever seen a mountain reflected in a lake, or your face reflected in a puddle of water?



Asymmetry

Some shapes don't have any lines of symmetry. We call these shapes asymmetrical (AS SM MET in suit). This tree is asymmetrical.

Rotational Symmetry

An image can rotate (ROT at the S), or turn, to be symmetrical. Look at this simple Pennsylvania Dutch rosette (page 28).



You can turn this rosette, and with each turn you'll see the same image. Try it.

- Place your pencil tip in the center of the shape and turn the whole rosette until another petal points straight up.
- Repeat this process and you have turned the rosette back to its original position.
- How many times did you turn the rosette, and see the same image? If you counted 8 times you were right.

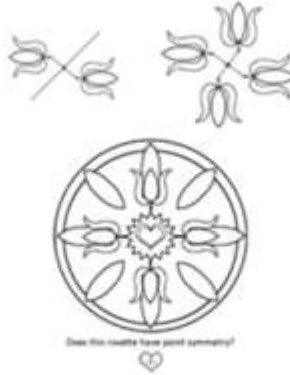
Each turn is called an order, so the rosette has 8 symmetrical orders. If you have to turn a shape completely around to see the same image (an order of 2), then it doesn't have rotational symmetry. It may have bilateral symmetry, though.

Now look at these shapes again and see if they have any orders of rotational symmetry. Put your pencil in the center of each image and turn the rosette, counting the orders of symmetry. (Write your answers on another piece of paper, then check them on the back page.)



Point Symmetry

An image has point symmetry when lines drawn from the image pass through a center point. It looks the same from opposite directions. Turn the book to check out the images below. Each wheel head has a matching part that is the same distance from the center point. Both of these figures have point symmetry. (The lines aren't part of the picture—they just show the center points.)



Review

We've looked at several kinds of symmetry—

- bilateral (two sides that are the same, but in reverse),
- rotational (a figure that turns to make the same picture),
- point (a picture that has the same parts, in the same way, that are the same distance from a center point, but in reverse), and
- asymmetry (no symmetry at all).

Now it's your turn to look at some of the Pennsylvania Dutch motifs (see 1000's) and analyze the types of symmetry contained in each one. Do this activity by yourself or with a partner. (Check with your teacher.) Check your answers on the back page.

Which of these motifs has bilateral symmetry?



Which of these motifs is asymmetrical?

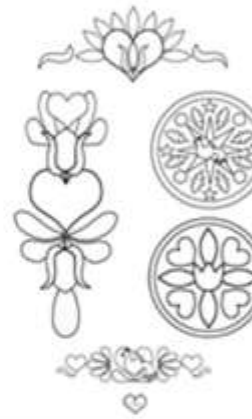


Which of these motifs has rotational symmetry?



Pennsylvania Dutch Designs

Here are some motifs arranged in artistic patterns. Study the designs to learn more about how the Pennsylvania Dutch folk artists used symmetry in designing their art work. Discuss your ideas with 3-5 friends, or write them on a piece of paper.



Answers

Page 2

What happens when you move the mirror back and forth? The size of the image changes. The mirror shows more or less of the image as it looks bigger or smaller.

Page 3: Lines of Symmetry

The girl has 1 line of symmetry.
The star has 5 lines of symmetry.
The leaf has 2 lines of symmetry.

Page 4: Orders of Symmetry

The rosette has 8 orders of symmetry.
The girl has 1 order of symmetry. That means she does NOT have rotational symmetry. She does NOT have bilateral symmetry.
The star has 5 orders of symmetry.
The leaf has 2 orders of symmetry.

Page 5: Point Symmetry

The rosette does NOT have point symmetry, because the heart in the center doesn't have it.

Page 6

Bilateral Symmetry—Tulip and heart
Asymmetrical—Leaf and rosette
Rotational Symmetry—Star, Leaf, Sun

References

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Pencil. (October 1, 2012). www.thematicteacher.com/symmetry-101/
www.thematicteacher.com/symmetry-101/

Beard, Arthur. "Symmetry." *David Mack Center*. (Web. 10 October 20, 2015).
<http://www.davidmackcenter.com/symmetry-101/>

Name _____ Date _____

Symmetry in Pennsylvania Dutch Design Worksheets

Bilateral / Reflection Symmetry

- Lay a piece of strip paper on the triangle, and trace over side A.
- Cut it out.
- Lay the triangle on top of the picture on side A and then flip it over onto side B.
- Are both sides the same? _____
- How is one side different from the other? _____

2. Make a mirror to help you learn more about bilateral, or reflective, symmetry.

- Take a piece of 4"X6" aluminum foil.
- Carefully fold it around a 3"X5" index card. Don't dent the foil. Make the fold tight so the foil won't fall off. Now you've made a mirror.

- Lay one side of the mirror along the dotted line.
- Look into the mirror on side A and then look at side B. They are the same! This is called a "mirror image," or a "reflection." It's another way to say bilateral symmetry.

Answers to Pennsylvania Dutch Designs, Page 6

Rotational Symmetry

- Some images can be turned to be symmetrical.
 - Cut out the rosette on the dotted lines.
 - Place your pencil tip in the center of the shape and turn it until another petal points straight up at the top. Put a check on that petal.
 - Keep turning the rosette until all the petals are checked.

How many times (orders) did you turn the rosette and see the same image? _____

- Cut out the images at the bottom of the page.
 - Place your pencil tip in the center of the image.
 - Turn it to find how many orders of symmetry each image has.
 - Write the number in the space below the image.



Answers to Pennsylvania Dutch Designs, Page 6

- Move the mirror back and forth. What happens to the image as you do this? _____
 - Why do you think this happens? _____

The LINE that divides an image into 2 images that are exactly the same, but backwards, is called a LINE OF SYMMETRY.

- There are 3 lines of symmetry in this triangle. Trace over each one with a different color crayon. How many lines of symmetry do you see in each of these images below? Draw each line with a different color crayon, and write the number in the blank.



Worksheets and Reader

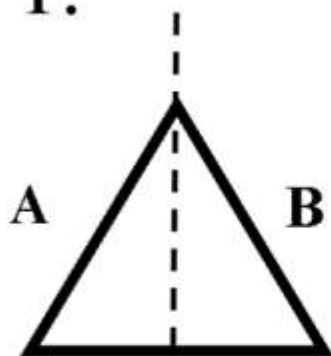
Sample Page 1

Name _____ Date _____

Symmetry in Pennsylvania Dutch Design Worksheets

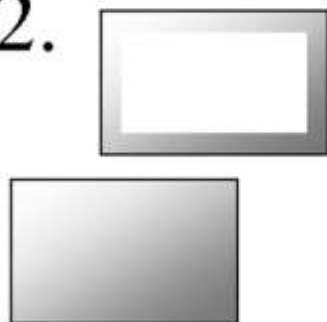
Bilateral / Reflection Symmetry

1.



- Lay a piece of scrap paper on the triangle, and trace over side A.
- Cut it out.
- Lay the triangle on top of the picture on side A and then flip it over onto side B.
- Are both sides the same? _____
- How is one side different from the other?

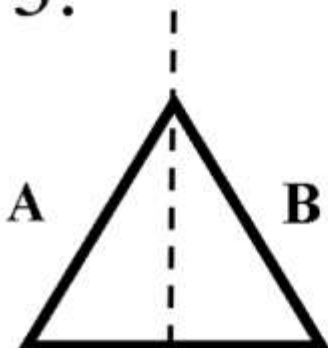
2.



Make a mirror to help you learn more about bilateral, or reflection, symmetry.

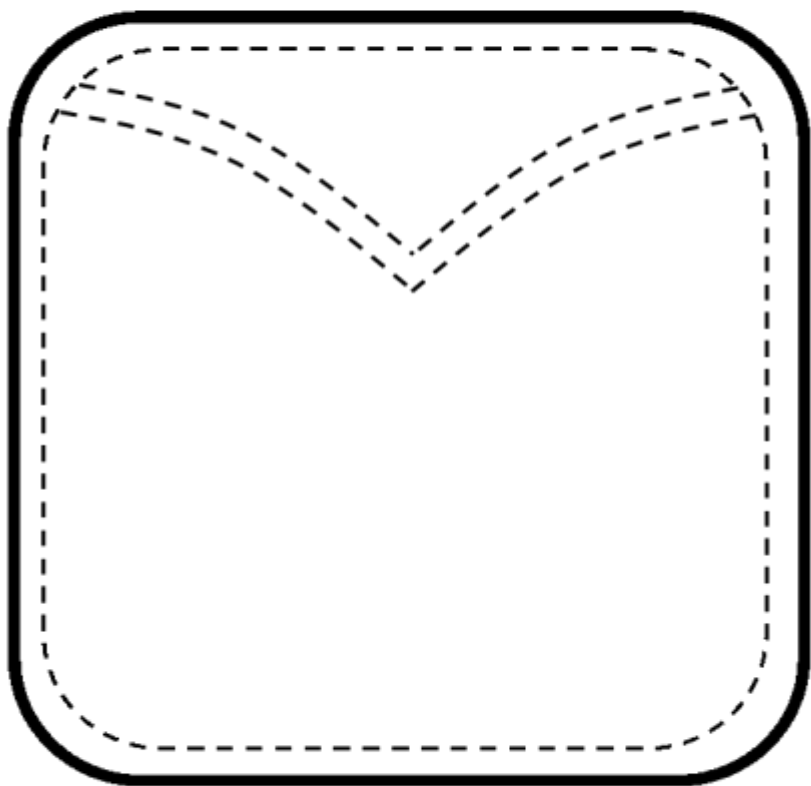
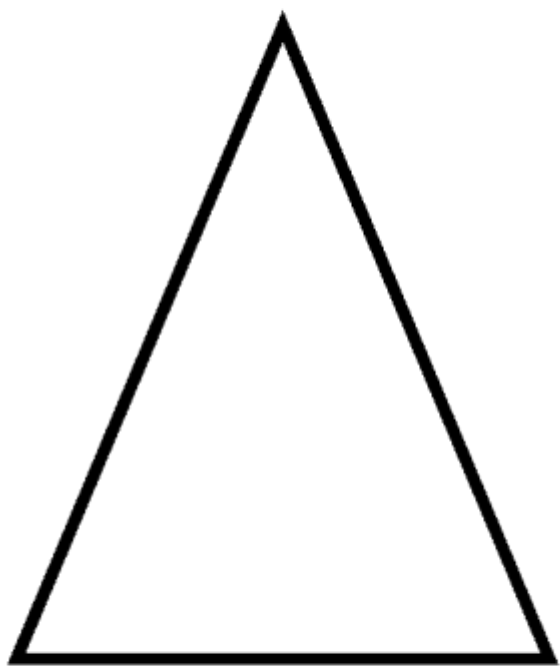
- Take a piece of 4"X6" aluminum foil.
- Carefully fold it around a 3"X5" index card. Don't dent the foil. Make the fold tight so the foil won't fall off. Now you've made a mirror.

3.



- Lay one side of the mirror along the dotted line.
- Look into the mirror on side A and then look at side B. They are the same! This is called a "mirror image", or a "reflection". It's another way to say bilateral symmetry.

Mirror Image



Directions:

1. Cut out the title and paste it at the top of the next page in your notebook.
2. Take a piece of aluminum foil that is 4 inches by 6 inches. (Keep it very flat so you don't dent it.)
3. Fold the shiny side of the foil around a 3X5 index card and tape it on the back.
4. Now you have a mirror. You can use a mirror to prove if an image is symmetrical.
5. Color the pocket and cut it out on the solid line.
6. Color the triangle and cut it out.
7. Lay the side of your mirror down the center of the triangle. Can you see a reflection of $1/2$ of the triangle? Does the reflection match both sides of the triangle?
8. What is a "mirror image"? Write the answer in your notebook.
9. Lay your mirror down the center of each angle in the triangle. What do you see? Write the answer in your notebook.
10. Lay the pocket and the triangle on the notebook page so that both fit. Tape the pocket on 3 sides and put your mirror inside.
11. Paste the triangle on the page.



Symmetry Vocabulary Puzzles

Self-Correcting

symmetry in design



the use of symmetry to make an arrangement that is pleasing or stable

order of symmetry



the number of times you can turn a figure at the center point and keep the same image

bilateral symmetry



a balanced arrangement of the same sized shapes on two sides of a line, point, or plane, where the sides are reversed

symmetry



rotational symmetry



a shape that can be turned at the center point to keep the same image.



natural items using symmetry for beauty or for function

line of symmetry



a line that divides a shape into two parts that are exactly the same but reversed

reflection symmetry



a balanced arrangement of the same sized shapes on two sides of a line, point, or plane, where the sides are reversed

exact reflection of a figure or object, in reverse.

point symmetry



a figure with matching parts that are the same distance from a point, but facing in opposite directions



Symmetry in Nature Cards



Symmetry in Design Posters



Meditation Hall Under The Daylight: Photo by Mat Sabunworara, via Public Domain Pictures.net.



Symmetry in Nature



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Hummingbird Nest: Photo by Sandie Flynn, Integrated Thematic Units.



Argiope Stripe - Argiope Bruennic: Photo by Hana Muchová, via Public Domain Pictures.net.



Ah Meng, Female Sumatran Orangutan: Photo by Rudolph A. Puzado, via Wikimedia Commons.

The **shape** of the nest has **bilateral / reflection symmetry** with **many lines of symmetry**. You can divide it in half at any point, and both sides of the shape will be symmetrical.



The **shape** also has **rotation symmetry**. It has **many orders of symmetry**.

This nest is **NOT** symmetrical in the materials the bird put in it. Some of the twigs twist and turn in different ways at different parts of the nest. The bird used different types of materials in different parts of the nest. She didn't care about symmetry!

Ah Meng, the orangutan in this picture has a symmetrical body in real life, but her picture is **NOT** symmetrical.

In the picture, her face is symmetrical (except for her turned eyes).

Her face has **bilateral / reflection symmetry**. It has **one line of symmetry**, but the symmetry is not perfect.



The rest of the picture is **asymmetrical**. It is **NOT** symmetrical.

You can find symmetry all around you—in things people build, in art, and in nature. Designs that are symmetrical look balanced, and beautiful, but too much symmetry can get boring. Look at the images on these cards. Can you see any parts that are symmetrical? Look at each image and decide:

- What kind of symmetry does it have?
 - Bilateral / Reflection?
 - Rotation?
 - Point?
- How many lines of symmetry are there?
- Is the symmetry perfect or just balanced?

You might want to take a symmetry walk to see what natural items you can find that are symmetrical!

The image of this tropical spider is symmetrical.

It has **bilateral / reflection symmetry**.

The shape is symmetrical

The colors are symmetrical.

It has **one line of symmetry**.

The web and the background are **NOT** symmetrical.

