# Patterns and Shapes in Our Community

## Summary

Students will create pictures of their community in the style of the artist Paul Klee (using shapes and patterns).

Main Core Tie Mathematics Kindergarten Strand: GEOMETRY (K.G) Standard K.G.1

Additional Core Ties

Mathematics Kindergarten <u>Strand: GEOMETRY (K.G) Standard K.G.4</u> Mathematics Kindergarten <u>Strand: GEOMETRY (K.G) Standard K.G.6</u>

# Materials

Prints of artist Paul Klee Class *ABC Community* book (made in <u>ABC Community Walk</u> activity) Round Is A Mooncake Shapes At Home Patterns All Around Me Patterns Black construction paper 6 in. x 6 in. Foam shapes Elmer's glue Foam shape picture teacher created samples Additional Resources

- City Shapes

series (*Circles, Ovals, Rectangles, Squares, Stars*, and *Triangles*), by various authors (Welcome Books Collection, Scholastic); Item NTS944790

- What's Round?
  - , by Barbara Shook Hazen (Newbridge); ISBN 9781567849141
- Squares Everywhere
  - , by Brenda Parkes (Newbridge); ISBN 9781567849035
- I See Shapes
- , by Marcia Fries (CTP); ISBN 1574710974
- I See Patterns
  - , by Linda Benton (CTP); ISBN 0916119971
- Lots And Lots Of Zebra Stripes: Patterns In Nature
- , by Stephen R. Swinburne; ISBN 1563979802
- Patterns Everywhere
  - , by Kari Jenson Gold (Newbridge); ISBN 156784331X
- Patterns All Around
  - , by Margie Burton (Benchmark); ISBN 1892393336
- Patterns
  - , by Brenda Parkes (Newbridge); ISBN 9781567849080

- Metro Readers

(*Circles, Rectangles, Squares, Triangles*), by various authors (Metropolitan Teaching and Learning, Inc., www.metrotlc.com); ISBN 1581203462 (*Circles*), 1581203454 (*Rectangles*), 1581203438 (*Squares*), and 1581203446 (*Triangles*)

- Shelter
  - , by Susan Canizares and Daniel Moreton; ISBN 0439045509
- Building Shapes
  - , by Susan Canizares and Samantha Berger; ISBN 9780439045851
- Buildings
  - , by Betsey Chessen and Pamela Chanko; ISBN 0439045843
- The Shape of Things
  - , by Dayle Ann Dodds; ISBN 0613000560
- When A Line Bends . . . A Shape Begins
  - , by Rhonda Gowler Greene; ISBN 0590642057
- Getting to Know the World's Greatest Artists: Paul Klee
  - , by Mike Venezia; ISBN 0-516-42294-4
- Round Is A Mooncake
  - , by Roseanne Thong; ISBN 0811826767
- Poetry Party
  - , by Linda Spellman; ISBN 0881600385

# Background for Teachers

This lesson uses the class *Alphabet Book* created in <u>ABC Community Walk</u> activity. It may also be completed as an independent activity. In this lesson students will look at, and replicate, work by the artist Paul Klee. The following information may be shared during class discussions about this artist. It is recommended that students be exposed to a variety of Paul Klee works of art over a period of time. They can become familiar with his art style during a brief class discussion.

Paul Klee was born in Switzerland in 1879. He liked writing poetry and music as much as painting. He decided to focus on painting and studied in Munich, Germany. He observed the world around him to inspire his paintings. With his pencil and brush, and even his camera, Klee studied the varied shapes, lines, and colors of things around him, including plants, animals, and people. In his pictures, he wanted to express more than we see with our eyes. Therefore, looking at his pictures we can see forms of actual things often surrounded by more abstract colors, lines, and objects that may represent emotions, movement, and even sound. He felt close to nature and carefully studied the natural things around him. He encouraged his own students to look beyond what the eye or camera sees to find new and exciting worlds. He loved colors and most of his paintings are filled with beautiful colors. The artist Wassily Kandinsky is another artist you may want to study. He also does a lot of paintings using geometric shapes.

This lesson uses the environment as a source of shape identification. It is beneficial for students to have previous exposure to the four basic shapes (square, circle, rectangle, and triangle) and their names. Students will practice finding shapes, therefore it is beneficial to have clear blackline examples of each of the shapes to refer to.

# Intended Learning Outcomes

5. Understand and use basic concepts and skills.

6. Communicate clearly in oral, artistic, written, and nonverbal form.

# Instructional Procedures

#### Invitation to Learn

Following the completion of the class *ABC Community* book, carefully review the photographs that have been taken. Ask the students, "Do you notice shapes and patterns in the photographs?" Look specifically for patterns and shapes. As students begin to identify items in the photographs, direct the conversation towards the patterns or shapes that may be found in the various photographs. Tell the students they will look closely at the things around them, as well as in books, to find shapes. Instructional Procedures

Read *Round Is A Mooncake* and/or *Shapes At Home*. As you read, notice how shapes can be found all around in our world. Point out that the character visits many different places in her neighborhood and home to find shapes. Ask the students to look around the classroom to find a variety of shapes. Share those ideas together.

Read *Patterns* and/or *Patterns All Around*. Ask the students to look around the classroom again to find any apparent patterns.

Look at the *ABC Community* book created as a class. Identify several shapes and patterns you see when looking at specific photographs. If you are unable to take photographs of your own community, you may use books that show shapes in the environment, such as *City Shapes* by Welcome Books (Scholastic).

Compare the photos in the class *ABC Community* book to some of the Paul Klee paintings previously introduced. Notice how he used shapes to create buildings, animals, and landscapes. Remind students of your previous discussions about how artists look very closely at the things around them to determine their shape and unique features. Compare the types of shapes he uses in his artwork to the shapes you found in the photos you have taken. Point out that buildings are often rectangle shapes combined with triangle shapes to form the roof, or that cars can be rectangles with circles for wheels. Also, notice any color or shape patterns in the artwork or photos.

Ask the students to think of a picture they could create using shapes. Encourage them to think of how they could combine circles, squares, rectangles, and triangles to create a house, animal, building, car, etc. Introduce the foam shapes. Explain to students that they are going to use the shapes to create a picture like the artist Paul Klee of something in their community. Show them samples you have created previously using the foam shapes.

Create shape pictures. Give the students the black construction paper and foam shapes. Allow them time to create their own shape picture. Encourage students to create things they might have seen during their community walk, such as the school, playground, cars, trees, people, etc. After the students have created their picture, make sure they leave the shapes on the black paper during the gluing process. Using Elmer's glue, affix each shape one at a time to the black paper. Allow the picture to dry. During this process students need to be aware of spatial relationships. They need to work to organize their shapes on the paper in order to show items next to, above, below, on, over, or beside.

Name the picture. Have the students create a title for their picture. Create a label with the child's name and picture name on it for display. Share the pictures with each other as a class. As students share their artwork, ask them to point out and name the variety of shapes they used to create items in their picture. Take time to assess student's knowledge of spatial relations by asking him/her to identify the locations of various items in the picture. Students can respond in complete sentences. For example, "I made a tree using a rectangle and a circle. I used a square and a triangle to make a house. The tree is next to the house at the bottom of the hill."

## Extensions

## - Shared poems

: Use the class ABC Community book or the Paul Klee replication pictures as an inspiration for a

class poem. Choose something you saw on your class walk to write about or write about the experience itself. You may want to choose one of the following formats: Lanterns-1 -- one syllable line 2 -- two syllables line 3 -- three syllables line 4 -- four syllables line 5 -- one syllable Example: sky so blue many clouds above the earth now Parts of Speech Poems line 1 -- one article (a, an, the) + one noun line 2 -- one adjective + one conjunction + one adjective line 3 -- one verb + one conjunction + one verb line 4 -- one adverb line 5 -- one noun (relating to the noun in the first line) Example: The cliff, sharp and rocky, iuts and looms above. Wall. Stair Poems step 1 -- the topic or main idea (usually one word) step 2 -- three adjectives describing the topic step 3 -- a place or time connected with the topic step 4 -- a summarization of the topic or a phrase that means the same as the topic Example: Winter snow. cold. ice all dressed in white January (From Poetry Party by Linda Spellman.) - Construction paper art : Use construction paper to create a replica of a familiar building. Take a photograph of a favorite

: Use construction paper to create a replica of a familiar building. Take a photograph of a favorite place such as McDonald's, Pizza Hut, or other local restaurant. Have students refer to the photograph as they use construction paper to replicate the specific shapes, colors and patterns of the building. Students may work in groups to create large (2 ft. x 3 ft.) construction paper art projects, or work alone on a smaller (8 1/2 in. x 11 in.) project. This is also a great way to assess student's spatial relations perceptions. Students need to look at a photograph, cut construction paper in the same shape but in a larger proportion, and organize the shape in the correct format on the paper. This is a difficult skill for some students.

## - Folded Shape Books

: After completing a community walk or reading several pattern and Shape Books, students can

create their own books that illustrate pictures of shapes in their environment. Using the <u>Shape</u> <u>Book handouts</u> (pdf), fold the books so that students are able to write their name on the front cover and use the following three 1/4 sheet pages to illustrate three different places they notice the shape in their environment. For example, the student may draw the classroom door, a poster in the classroom, and a table in the classroom to demonstrate knowledge of how to locate a rectangle in the environment.

**Family Connections** 

Neighborhood Shape Walk

As a family, go on a walk around your neighborhood or in different rooms in your house. Keep a list, organized by type of shape, of the items you find. See how many different items you can find of each shape. Notice which shapes are more apparent and which are harder to find.

### Assessment Plan

Assessment should be ongoing during this activity through class discussions and teacher observation of student work.

As students share their artwork with the class, notice and record which students are able to readily identify the four basic shapes in their picture. Ask students to explain to the class how they chose the name of their picture and how they used shapes to create a portion of their picture. Check student's spatial relation knowledge by asking him/her to describe his/her picture using terms listed in the math Core Curriculum (e.g., on, over, under, above, below, top, up, down, in front of, behind, next to, beside, etc.).

You may also want to complete the *Folded Shape Books* listed above as a part of the assessment. Watch carefully as the students create their books to make sure they are properly identifying the specific shape focused on in the book. You may want to have the students share with the class to reinforce the names of the shapes, as well as show a variety of places shapes can be found in the environment. A class tally of the different types of items (doors, wheels, windows, etc.) could be kept in order to point out diversity of the items. Encourage students to find unusual items, but remind them to make sure the shape identified is correct.

Authors

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