

Shutterfly Photo Story Lesson Plan

Subject: Math
Grade level: K

Lesson Title: Found Shapes, Created Shapes: A Lesson in Geometry

Common Core/State Curriculum Standards:

Geometry

Identify and describe shapes.

- CCSS.Math.Content.K.G.A.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.
- CCSS.Math.Content.K.G.A.2 Correctly name shapes regardless of their orientations or overall size.

Analyze, compare, create, and compose shapes.

- CCSS.Math.Content.K.G.B.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

Writing

Text Types and Purposes

- CCSS.ELA-Literacy.W.K.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.

Production and distribution of Writing

- CCSS.ELA-Literacy.W.K.6 With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.

Learning Objectives:

- Students will be able to correctly describe objects using names of shapes.
- Students will be able to use position words to identify relationships between shape locations.
- Students will be able to correctly name and organize shapes regardless of orientation and size.
- Students will be able to draw shapes when provided with an example.
- Students will use Photo Story with the help of an adult to draw, label, and write about their shape.

Students Learning Targets: *(What will students know and be able to do as a result of this lesson?)*

As a result of this lesson, students will be able to use their knowledge of shapes to identify common shapes in their environment, and with help, be able to draw, name, and describe shapes. They will be able to recognize and create the positioning of shapes relative to other objects.

Instructional Strategies: (*Project-based learning, direct instruction, inquiry-based instruction, cooperative learning, etc.*)

- Direct Instruction
- Cooperative Learning (small/large groups)

How Students Will Use Shutterfly Photo Story:

- Students will use Photo Story as a way to sort shapes regardless of size, orientation, and color.
- Students will use Photo Story to capture shape examples found in their classroom or outside.
- Students will use Photo Story's drawing feature to outline the shapes in their photos.
- Students will use Photo Story's drawing feature to create assigned shapes and position them in relation to other shapes.
- Students will use Photo Story to label their shape pages.
- As an culminating activity, students will use Photo Story's drawing feature to turn their drawn, positioned shapes into an illustration of something their shape looks like (an ice cream cone, person, tree, rocket ship, dog, fish, etc.).
- Students will use Photo Story to record descriptions of their shapes, how they are positioned, and what other image their shapes look like.

Required Materials/Lesson Length:

Materials:

- iPads with the Photo Story app (class set or enough for groups of 3-4 to have one)
- A connection for the iPad to display on a larger screen for the class to see
- A collection of shape photos demonstrating different sizes, orientations, and colors
- A set of cards with shapes printed on them (enough for each student to have two)
- Plenty of shape practice (see resources)
- Adult assistance for audio recordings and labeling

Length:

The activities should take place over the course of at least a week to allow for adequate reinforcement and practice.

Resources: (*Photos, drawings, student created stories; reference books, articles, website URLs, etc. for citation*)

Shape practice can be found here: http://www.kidzone.ws/prek_wrksht/shapes.htm and here <http://www.education.com/worksheets/kindergarten/shapes/>.

Procedures/Activities: (*What will the teacher and students do?*) (*Prior Knowledge. Opening Activity, Step-by-Step Learning Activities, Closure, Post-Instruction Reflection*)

Prior Knowledge:

These activities are to take place after students have learned, practiced, and are familiar with shape names and examples as a way to practice and demonstrate advanced knowledge of shapes through the use of Photo Story.

Activities:

- **Size and Orientation:** After shape introduction and practice, the teacher prepares a collection of shape images of various sizes, orientations, and colors within Photo Story. Students work together in small groups to organize the shapes by dragging and dropping them onto a page they label with the shape name.
- **Identifying Shapes and Positioning in the Environment:** After reviewing shapes, students look around the room/outside for examples of the shape in things they see (the square of a brick/ a triangle on the swing set/ a circle of a basketball hoop). Take pictures of the found shapes. Review the shapes found and identify their positions (the square brick is next to, above, below another brick/ the triangle is above the ground/ the circular basketball hoop is in front of the backboard). Use the drawing feature in Photo Story to outline the found shape in the photo. Have students record a description of what they found and what its location is to another element in the photo (This shape of the basketball hoop is a circle. The circle is in front of the backboard).
- **Creating Shapes and Positioning Practice:** After adequate review practice with shapes and opportunities to trace and color the shapes, every student selects a shape card at random. Then the teacher selects a common position word for all students to use. Students then select a second shape card. Use the Photo Story drawing tool to draw the first shape, and then the second shape based on the position word. Example: First shape- circle; Position word- above; Second shape- square; the student would draw a circle located above a square. Then, with help of an adult, students create an audio recording in which they describe their shapes and the relative positions. Example: This is a circle above a square. This is a square below a circle.
- **Culminating Activity- Shape Creation and Positioning:** Students participate in the shape drawing/positioning activity again. This time, they turn their drawn, positioned shapes into a larger drawing. Maybe their circle above a square looks like a dog, so they add lines to turn it into a dog; or maybe it looks like a person and they add features to make it a person. Note: this time, they will wait to create a recorded description of their shape until each student's drawing has been put into one book. Then, students will take turns (with adult help) recording their description. Their description will expand to be more descriptive. For example: This is a circle above a square. This is a square below a circle. This circle above a square looks like a dog (or person, etc.) to me (they could even describe the colors or give their dog a name).

Closure:

It is important for students to share the hard work they put into their final shape position drawings. After all students have recorded their description for their drawing, set up the iPad to for the class to view it on a larger screen. Share the book, showing the image and selecting students to identify the shapes and their position before playing the student's recorded description. Do an informal check of how well students are able to recall and identify the shapes and their position relationship to one another.

Differentiation: *(Lesson suggestions for enrichment or re-teaching. Scaffolding needed as a result of misunderstandings noted during formative assessment.)*

To be determined by teacher.

Special Education/ESL Accommodations & Modifications:

- See Resources section for additional review practice.
- Work together as a class to organize shapes before students work in small groups.
- Instead of ‘finding’ shapes inside/outside, assign small groups to work together to find an assigned shape and give them ideas of where to look to find them.

Extensions: *(Additional activities, follow-up lesson ideas, how the Photo Story book will be shared)*

The Photo Story book will be used during instruction for practice. These pages can be saved as examples of individual student progress to be shared with parents during conference times. The final class book can be printed and shared with parents as a collection of artistic creations and recorded voices demonstrating a gained knowledge of shapes.

Assessment: *(How will you determine if students have met the lesson objectives? How will your students know if they have successfully met the lesson objectives? Incorporate formative as well as summative assessments – rubrics, etc.)*

Student progress should be monitored through the group and individual practice activities before moving on to the final shape drawing and positioning activities. Those final drawings should be assessed for how well they represent the shape, if they are accurately positioned based on the position words given, and for the accurateness of the description recorded by the student.