

## Sorting with 2 Dimensional Shapes

### General Information

**Grade Level:** 1<sup>st</sup> Grade

**Time:** 12:10-1:10 p.m.

### Classroom Management:

- This will take place after lunch recess and reading a story.
- The children will be sitting on Math World at the beginning of the session participating in a whole group activity. They will be then dismissed to work with an assigned partner on the activity.

### Materials

- Shape cards (1 set per pair)
- Poster paper
- Glue
- String or ribbon
- Chart paper

### Learning Objective

The students will be able to describe and compare two-dimensional shapes; sort and classify two dimensional shapes; develop vocabulary to name and describe two-dimensional shapes. The students will also work cooperatively in pairs to complete the activity.

### Assessment/ Evaluation

One of the activities we will be doing is an assessment. The students work in pairs to sort the shape cards and make a poster to show their favorite way of sorting. We are then going to share the posters on the second day of work.

### Background Information

The students started this particular unit at the beginning of the year. They are familiar with some vocabulary of describing two dimensional shapes. They have begun to manipulate various shapes but they have not yet sorted or categorized shapes according to a similar characteristic. This is the first day of a two-day lesson.

### Lesson Description

#### Task Description (12:10-12:20)

- **Introduction of Task:** Do incredible equations for about 5-7 minutes. Afterwards, gather students in a circle around math world. I will hand out enough of the shape cards to give each student one card (some students will have the same shapes). I will make a large circle on the floor with about 12 feet of string. **Play game called “Guess my Rule”**

- *Teacher: Before I explain this game we are going to play, I would like to over some behavior expectations. When we have something to say we raise our hand, right?*
- **Task Name: Guess my Rule (12:20-12:30)**
  - *Teacher Modeling: Explain to the children that I am thinking of a secret rule that tells which shapes can go inside this circle. I won't tell them the rule, but they can try to guess which shapes go in. Place in the circle a couple of shapes that follow my secret rule: Shapes that have only straight sides. "I have a secret rule for what shapes can go inside this circle. Here's a clue. These two shapes can go on in the circle. I'll put them in there so you can see them. There are more shapes that can go in this circle. Who else thinks they might have a shape that goes in the circle? I'm looking for a quiet hand. I don't want anyone jumping in and interrupting other people. Please don't guess my rule just yet. I want to see as many shapes in the circle that follow this rule.*
    - **Informative feedback for correct and incorrect responses/Reinforcement:**
      - *Guided Practice: So Jane think her shape goes in the circle. What shape is that? Yes it does go. Lisa, please put your shape in the circle. Who else thinks they have a shape that goes in the circle?*
        - *Jakob? No your shape does not go in the circle. Hold on to yours shape. But that's an important clue. Look carefully at Jakob's shape. That gives important information about what can't go in our circle.*
        - *Does anyone else have a shape that you think does or doesn't go in the circle?*
        - *Grant, you think you know my shape? Okay, I don't want to hear that quite yet.*
        - *When I think many students have a good idea what my rule is, ask one student to state it. Ask why, clarifying questions, etc.*
      - **Play another round with Triangles.**
- **Lesson Closing and/or dismissal to independent practice (12:30-12:35)**
  - Thank the students for their participation. Explain to them what their jobs are today. Okay boys and girls, I have assigned partners for today. Everybody needs to pay attention to this so we know what your job is today. You'll be working in partners.
  - "With your partner, you are going to get a sheet of Shape cards. Your job is to first cut out these shapes. Then you are going to sort these shape cards into groups of shapes that go together. You can use two, three or four groups. BUT be sure that every shape has a place where it belongs. You can try a few different ways to put the shapes into groups, and then choose the way you like best. Then once you find the way you like best, you can get a sheet of poster paper and glue the shapes on the poster."
  - Demonstrate a few shapes with the class on chart paper or on the board. Draw about six shapes: two different squares, a rectangle, a triangle, a circle and a semi-circle. "Do you see any shapes here that can go together? Okay, so you could put these two shapes together because they're both squares. Is there a different way? Joey, you say you'd put all the shapes with straight sides together, and the shapes with curved sides

together. In the shape cards you will receive, you will have more shapes than this to sort-lots of them! You'll have to find a group for every shape card. You'll need to decide on names for your groups, too. Before you glue, make sure the shapes follow your rule".

**Modifications/Accommodations/Adaptations**

I have already pre-assigned partners, which is one of the ways I have accommodated my learners. We have a few struggling learners in our class, so I worked with my cooperating teacher to pair struggling learners with students who are comfortable with math. I have worked in scaffolds throughout the opening in my lesson, with a lot of repetition to help my students.

I will also be walking around and observe students. If students are having difficulty getting started, I can ask these questions:

- Which shapes seem to go together? Do you see some shapes that are the same in some way?
- If you're sorting this way, where does this shape go?
- What do you call this group of shapes?
- Why did you place this shape into this category instead of this one?

**Assessment Rubric(s) and form(s)**

- Do they observe and describe some shapes as having only straight sides, while other shapes have some curved sides?
- Do they observe and describe how some shapes have different numbers and sides? For example, do they distinguish between three-sided and four-sided shapes?
- Do they observe and describe differences among shapes with the same number of sides?
- During their conversations about shapes, do they observe and describe how shapes are related to each other? (Two trapezoids can make a hexagon)

Proficient: P

Developing: D

Novice: N

Names	Are students working cooperatively (taking turns, dividing up work, etc)	Are students paying attention to important attributes that shapes have in common?	Are the students carefully observing, describing and comparing the shapes?	Comments
Payton & Tanner				
Connie & Jamie				

Amber & Annette				
Dru & Grant				
Deon & Victor				
Caroline & Meredith				
Kyle G & Brent				
Kyle L & Alina				
Don & Jakob				
Jane & Crystal				
Dominic & Akielly				