

That's So Square

Summary

This activity will help students become more familiar with the three most common types of geometric shapes: circles, triangles and parallelograms. This will take place as the children create the shapes with their bodies and then observe their environment and see the shapes in actual use. The boys and girls will sketch the shapes, which draws attention to characteristics for sorting. Once the drawings are sorted, names can be assigned to the shapes.

Main Core Tie

Mathematics Grade 2

[Strand: GEOMETRY \(2.G\) Standard 2.G.1](#)

Time Frame

1 class periods of 60 minutes each

Group Size

Large Groups

Materials

- *The Greedy Triangle*
 , by Marilyn Burns
 View-thru geometric solids
 Drawing paper
 Pencils
 Scissors
 A variety of places within the school environment that incorporate shapes (classroom windows, gym and playground circles, etc.)

Additional Resources

Books

- "How to Draw" books
- *The Greedy Triangle*
 , by Marilyn Burns; ISBN 0590489917
- *Grandfather Tang's Story*
 , by Ann Tompert; ISBN 0517885581

Video

- *Math Monsters Episode 5--Geometry*
 (available at www.slimgoodbody.com Item SGVD023 or Amazon.com); ASIN 1887028145

Additional media

- Paper crystal shapes folding patterns
- An architect, artist, landscaper, etc. to describe how s/he uses shapes.

Background for Teachers

This lesson should take one math period lasting approximately one hour. The teacher can lead the activity with the full class or ask parents to work with small groups. (Be careful that groups aren't too small or Procedure 1 will be hard to implement)

Intended Learning Outcomes

1. Demonstrate a positive learning attitude.
5. Understand and use basic concepts and skills.
6. Communicate clearly in oral, artistic, written and nonverbal form.

Instructional Procedures

Invitation to Learn

Read *The Greedy Triangle*, by Marilyn Burns.

Ask questions and discuss:

- What did you learn about shapes?
- Where are shapes found?
- What role do shapes play?
- How many different shapes did you see?
- Are there shapes in our environment?

Instructional Procedures

To review basic shapes: Take the students into the gym. Have them stand around a circular line. Ask what shape they have created. Have the students stand on lines forming a parallelogram (square, rectangle, etc.). Ask what shape has been created. Have the children on two sides of the parallelogram move together to form the third side of a triangle. Ask what shape has been created.

After returning to the classroom, use geometric solids to show the shapes again. Encourage the students to brainstorm what is unique about each shape (leading to the idea of how each shape can be identified).

Give each child a piece of paper. Fold the papers into fourths (or sixths, etc. depending on how many shapes you wish the children to find and draw). Instruct students that they will be taking a walking tour of the school and that they will be drawing some shapes they find. Begin the tour in the classroom and ask students what around them shows a basic shape. As the students name objects (globe, window, blackboard, desk, etc.), have them sketch one or two items. Continue your tour by going through the halls (bulletin boards, signs, etc.) and onto the playground (balls, basketball court, hopscotch squares, etc.)

Bring the students back to the room and ask them to cut out the sections of their paper. Divide the students into groups and have them show and explain their drawings to their groups. Tell the students to sort their shapes into circles, triangles and parallelograms. When all the groups are done, have the groups share their work with each other.

Extensions

Use the shapes to draw basic animals, faces, etc.

Draw a building using the shapes.

Ask the students to write "Concrete Poems" using the shapes.

For students who are ready, use the shapes to discuss area, arrays, etc.

While studying rocks, ask students to identify the geometric shape of mineral crystals.

Work with tangrams.

Family Connections

The students could lead their family on a shape search and teach their families what they learned.

Parents could explain how they use shapes every day.

The family could build something that used geometric shapes.

Assessment Plan

Have students write about their experience in their math journal.
Create a simple class presentations.
Interview and/or film the students talking about what they learned.
Have the students present their work to another second grade class.

Authors

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