

Unit: Mathematics-4.4

Content Area: **Mathematics**
Course(s):
Time Period: **Trimester 1**
Length: **Ongoing**
Status: **Published**

Brief Summary of Unit

Students will develop knowledge of spatial concepts and shapes.

In this course, students are provided with opportunities to develop skills that pertain to a variety of careers. When completing this course, students can make informed choices and pursue electives that further their study and contribute toward the formation of career interest.

Standards

The standards in this unit reflect a developmental progression across grades/ levels and make interdisciplinary connections across content areas including social sciences, technology, career readiness, cultural awareness and global citizenship.

MA.K-12.1: Make sense of problems and persevere in solving them.

MA.K-12.5: Use appropriate tools strategically.

LA.RST.6-8.3: Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

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| AL.PK.9.3.4 | Reflect on, evaluate, and communicate what was learned (e.g., children in the class demonstrating and explaining their project to children in a younger group). |
| MA.PK.4.4 | Children develop spatial and geometric sense. |
| MA.PK.4.4.1 | Respond to and use positional words (e.g., in, under, between, down, behind). |
| MA.PK.4.4.2 | Use accurate terms to name and describe some two-dimensional shapes and begin to use accurate terms to name and describe some three-dimensional shapes (e.g., circle, square, triangle, sphere, cylinder, cube, side point, angle). |
| MA.PK.4.4.3 | Manipulate, compare and discuss the attributes of: |
| MA.PK.4.4.3.a | two-dimensional shapes (e.g., use two dimensional shapes to make designs, patterns and pictures by manipulating materials such as paper shapes, puzzle pieces, tangrams; construct shapes from materials such as straws; match identical shapes; sort shapes based on rules [something that makes them alike/different]; describe shapes by sides/angles; use pattern blocks to compose/decompose shapes when making and taking apart compositions of several shapes). |
| MA.PK.4.4.3.b | three-dimensional shapes by building with blocks and with other materials having height, width and depth (e.g., unit blocks, hollow blocks, attribute blocks, boxes, empty food |

containers, plastic pipe).

Transfer

Essential Questions

- Can I find shapes in my environment?
- How can I identify position of objects? How can I understand my position in relation to my surroundings?
- What do shapes look like? What are the attributes that make them different from one another?

Essential Understandings

- Individuals need to be aware of their own bodies and where they are in relation to surroundings
- Positional words can identify where an object is located
- Shapes are everywhere
- Shapes have different names and they can be identified according to their physical attributes

Students Will Know

- Objects can be found according to position
- Their bodies take up space and they are in control of how and where they move their bodies
- There are many different shapes
- They can find shapes in everyday objects

Students Will Be Skilled At

- Finding shapes in their environments
- Identifying location of an objects using positional words (i.e. in, under, on, etc.)
- Identifying various shapes
- Moving their bodies to certain positions (i.e. “stand in front of ___”, “sit on the ball”, etc.)

Evidence/Performance Tasks

This course is designed to promote skill attainment. Student progression and pace through which they proceed through the performance tasks is based on their affinity for and ability to reach skill attainment. The teacher will determine formative and summative skill attainment; alternative assessments will be incorporated for each student based on their strengths and challenges.

- Demonstrating where their body is in relation to objects and others
- Find objects when given positional words as clues
- Finding shapes within the environment and in different forms (i.e. clock as a circle)
- Identifying and describing shapes
- Placing objects in specific location when asked (i.e. put the book on the shelf)
- Show awareness of position in space

Learning Plan

- “Hunt” for shapes within the classroom as a group and see how many the children can find
- Describe what has been learned about shapes to a friend
- Develop shape recognition by having each student pick a shape nametag
- Draw shapes on the SMARTBoard or paper
- Match shapes during tabletop play using
- Play positional word games both inside and on the playground so children can explore their positions in inside and outside environments
- Play shape games (stand on the circle, jump on the square, etc.), Shape BINGO
- Sort shapes during individual and small group instruction
- Use bodies during positional word games and during day (stand behind _____)

Suggested Strategies for Modifications

This link includes content specific accommodations and modifications for all populations:

https://docs.google.com/spreadsheets/d/1vp4_sVkiIcevefjdpDEpUQYy5Jja39vzPvk-fFJrjE/edit

- Allow for extra time and practice
- Incorporate accommodations and modifications of the students’ IEPs
- Incorporate multi-sensory strategies
- Provide 1:1 time and assistance
- Repeat directions and provide multiple examples
- Use visuals