Preschool Math

Unit Objectives:

- Encourage ongoing "math talk"
- Build competence in understanding of "same and different" (concept reinforcement)
- Introduce and reiterate 2D shape recognition (concept development)

To do so, please complete the following:

What is Required?	When
Incorporate math talk into classroom routines. <u>Video - What is Math Talk?</u> <u>Video - Promoting Math Talk</u>	Daily
 Include a Math fluency activity as part of your circle time routine. This can be as simple as counting how many friends are present today or introducing a counting song. Suggestions include: Select one of these <u>Math Fingerplays and Chants</u> Play <u>Body Count – an On the Go Math game</u> 	Daily
Each day, offer a "Concept Development" Math center to introduce and reiterate 2D shape recognition; select from the options on page 2. It is recommended that you offer a center for at least 2-3 days before changing the materials.	Daily
Weekly, offer a "Concept Reinforcement" Math center that builds competence in understanding "same and different", which was introduced and developed in Unit 1; select from the options on page 3.	Weekly (offer for 2 days)
Note that concept reinforcement is IN ADDITION TO concept development (2D shape recognition) as it is intended to assist friends who may need support or are new to the classroom.	

Please Note:

As long as the guidelines above are respected AND all of the activities on the following pages are offered at least once during Unit 2, timing and pacing decisions (which centers to offer on which days, how many days to offer them, and time of day) are at teachers' discretion and should be based on children's needs and interests.

Many teachers find that it works well to offer only "Concept Development" centers on Monday, Tuesday, and Wednesday, then add in a "Concept Reinforcement" center on Thursdays and Fridays. You might also find it helpful to offer an "anytime" Math center once weekly (see Unit 1 Guide for ideas), to continue to promote math talk and to help you assess children's comfort level/familiarity with the classroom materials.

Concept Development: 2D Shape Recognition

Please offer one of these "Concept Development" Math centers daily; it is recommended that you offer a center for 2-3 days before changing the materials. Note that "Concept Development" Math centers are offered IN ADDITION TO "Concept Reinforcement" Math centers, which are offered 1-2 days per week (see page 3).

Shapes, Shapes, Shapes Cover a table in bulletin board paper, then use tape or markers to create large basic shapes on the surface. Provide a basket full of matching shapes (classroom manipulatives) and invite children to play freely. Later, invite children to select the "Basic Shapes & Colors" puzzle on ABCmouse.	
Triangles Everywhere Children begin by selecting the "Triangles Everywhere" book from the ABCmouse library. Next, children sort construction paper shapes as shown at right. This activity can be done on a flannel board, on construction paper, or on a bulletin board (this would create a really nice display!).	<u>+riangle Δ not +riangle Δ</u>
Shapes Everywhere Repeat the "Triangles Everywhere" activity above with Circles, Squares, and Rectangles. Once all 2D shapes have been introduced, add a challenge – sort into 3 groups as in the "Square, Rectangle, Other" image at right.	Square D rectangle dother
Shape MonstersInvite children to select and name a basic precut shape, and then use it create their monster. Add different shapes as facial features. Add a challenge by inviting children with strong (or emerging) scissor skills to cut their own patterns.Extend by rolling a die to determine how many eyes or teeth to add.	
Shape Puzzles Use craft sticks and markers to create a shape matching puzzle. Separately, provide a variety of craft sticks or cotton swabs for children to build their own shapes (glue onto paper to display or take home).	

Extension Ideas (applicable to any of the above centers):

- Provide sponges (cut to basic shapes) for sponge painting at the easel or at a table.
- Invite children to make shapes with their bodies (for example, 4 children lie on the carpet to form a square). Use a tablet to capture photos to print for displays and for portfolios!
- Go on a shape hunt use tablets to capture photos of classroom objects ("our table is a circle!") and use the images to create a classroom book.

Concept Reinforcement: Same and Different

Please offer one of these "Concept Reinforcement" Math centers weekly, for 1-2 days. Concept reinforcement centers are IN ADDITION TO "Concept Development" Math centers, which are offered daily (see page 2).

In advance, build several <u>very basic</u> structures from Legos or other classroom blocks. Use a tablet to capture a photo of each structure (create an album on your tablet so children can easily view the pictures one at a time). Provide each child with an image and challenge him to create a structure that is exactly the same. ALTERNATIVE – if you have enough materials to do, place your actual structures (not photos) on the table instead, so children can duplicate and place the items side-by-side to compare and self-correct.	
 Use a muffin tin and pompoms or small balls of playdough to: Sort by color. "I put a red one in this spot. If you have one that is the SAME, put it in, too." Duplicate a pattern. (Fill one row of the muffin tin and challenge children to make their row exactly the same. 	TOT TRAY: Colors.
Provide 4 colored paper plates or sheets of colored construction paper and a large variety of feathers and pompoms in the same 4 colors. Children match the object to the "mat" (paper) of the same color to increase understanding of same and different and reinforce color recognition.	ENVIREMENTAL ACTION
Use paper towel tubes and colored craft sticks to create "Sort by Color" center. To increase understanding of same and different and reinforce color recognition, children sort sticks by color, placing in the matching paper tube. Save the tubes for the next center, too!	
Use poster board, the paper towel tubes from the previous suggestions, colored pompoms, tongs, and an empty box or bin to create a "Colorful Pompom Drop" center. Children build fine motor skills as they sort by color; this activity also reinforces understanding of same and different.	COLORFUL POM POM DROP

Seasonal Supplements

These thematic experiences are optional ways to supplement your math curriculum. Note that children are not expected the master the concepts introduced here, as the curriculum gives them specific attention later in the year.

Counting Apples, Pumpkins, and Candy Corn	Weighing Apples
 Follow up a reading of 10 Red Apples with the fun flannel board experience explained <u>here</u>. 	Use your classroom balance to determine what weighs more than an apple, as described <u>here</u> . You can easily adapt this experience to weigh small pumpkins, gourds, or
 The activities shown <u>here</u> use small plastic pumpkins and beans but can be easily adapted using materials found in your supply closet. 	even leaves, prompting lots of important "math talk" about same, different, more, less, heavier, lighter, etc.
 If you try out <u>this activity</u>, be sure to try the "check my work" step that's suggested, too! 	
Apple Print Patterns	Apple Tree Math Games
Challenge children to use apple prints to make simple ABAB patterns. To extend this activity, use real apples to create patterns and capture photos on your classroom iPad; invite children to duplicate the patterns that they see in the photos.	Use your classroom's jumbo dice and some pompoms from the supply closet to play some of the apple tree games described <u>here</u> . Please note that the subtraction stories mentioned are likely too complex for your students at this time of year; counting and 1:1 correspondence are most appropriate.
Turkey Feather Counting	Size Sequencing
• You can engage children in every step of <u>this</u> <u>activity</u> , including tracing and cutting out the necessary pieces.	Families will bring in pumpkins and gourds in a variety of sizes, perfect for sequencing and sorting activities! Sequence from largest to smallest and from smallest to largest.
 Playdough adds a fun, 3D element to <u>this game!</u> 	To extend this experience, give children s orange
As a seasonal reminder regarding diversity and sensitivity, we <u>never</u> use feathers to create "Indian headbands" or related items. See your lesson plans and curriculum notes for more information, as needed.	construction paper in various sizes and invite them to cut into circles, then decorate these as jack-o-lanterns and sequence them by size, too.
for more information, as needed.	