

Unit Objectives:

- Encourage ongoing “math talk”
- CONCEPT REINFORCEMENT - Build competence in understanding of prior content (measurable attributes, more/less, same/different, sorting, and 2D shape recognition)
- CONCEPT DEVELOPMENT - Introduce and reiterate concepts related to 3D shape recognition.

To do so, please complete the following:

What	When
Incorporate math talk into classroom routines. Video - What is Math Talk? Video - Promoting Math Talk	Daily
Repeat a Math fluency activity daily, 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: <ul style="list-style-type: none"> • Select one of these Math Fingerplays and Chants • Play Body Count – an On the Go Math game 	Daily
Each day, offer a “Concept Development” Math center to introduce and reiterate “3D 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” (Unit 1), “2D shape recognition” (Unit 2), “more and less” (Unit 3), and/or “measurable attributes” (Unit 4); select from the options on page 3. Note that concept reinforcement is IN ADDITION TO concept development (measurable attributes) as it is intended to assist friends who may need support or are new to the classroom.	Weekly (offer for 2 days)



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 5, 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: 3D 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).

<p>3D Shape Recognition - Cones</p> <p>Circle time or small group -- Pass a party hat around as you sing: Cone Song (tune: London Bridge) A cone is like a party hat, A party hat, A party hat, A cone is like a party hat, Come and join the fun!</p>  <p>Learning Center - Demonstrate rolling paper and then using tape to secure it to make a cone. Invite children to decorate their cones, which can be used as party hats. To connect to the theme, ask “Let’s imagine! What could this cone be?” (party hat? Bouquet holder? Castle turret?)</p>	<p>3D Shape Recognition - Spheres</p> <p>Circle time or small group - Pass a ball around as you sing: Sphere Song (tune: Farmer in the Dell) A sphere is like a ball. A sphere is like a ball. Heigh-ho this I know, A sphere is like a ball.</p> <p>Learning Center –“ It’s not a ball, it’s a sphere!” Provide playdough and show children how to roll it around on the table or between their hands to create spheres. Work on 1 to 1 correspondence and count how many spheres you can make.</p>
<p>3D Shape Recognition – Cubes</p> <p>Circle time or small group - Pass a box around as you sing: Cube Song (tune: Farmer in the Dell) A cube is like a box, A cube is like a box Heigh-ho This I know, A cube is like a box.</p>  <p>Learning Center - “It’s not a box, it’s a cube!” Block play naturally includes 3D shapes. Create a blocks center that includes only cubes and cones (use actual blocks but also add empty boxes and paper hats that you have taped off to seal the bottoms). Invite children to build and use tablets to take photos of their creations. Extend this play by creating and duplicating simple patterns: “Cube, cone, cube, cone...”</p>	<p>3D Shape Recognition - Cylinders</p> <p>Circle Time or small group - Pass a can around as you sing: Cylinder Song (tune: Farmer in the Dell) A cylinder is like a can. A cylinder is like a can. Heigh-ho this I know. A cylinder is like a can.</p> <p>Learning Center - Add cylinders (paper towel tubes and oatmeal canisters work well!) to multiple centers this week. Challenge children to use math talk (name the 3D shape) as they play.</p> <ul style="list-style-type: none">- Use cylinders to build towers, castles, and other creative creations in the blocks center.- Use cylinders and paint to make prints or to create 3D sculptures in the art center.- Use cylinders (rollers) to roll playdough.

Additional Activity Suggestions:

- After introducing all 4 3D shapes, extend learning by using a “mystery bag” filled with 3D props during circle time. Prompt students’ recall: “If you’re holding a cube, stand up!”
- Hide a variety of 3D blocks and props in your rice bin; challenge children to find and name them. Extend by creating a master I Spy list on paper or a tablet so children know they’ve found every object.
- Collect several 3D blocks; place a star sticker on the bottom of a few. To play, each child chooses a block and names the 3D shape. If the shape has a star, the child gets to “make a wish” – this a fun way to extend the imagination aspect of the “Let’s Explore” theme.

Concept Reinforcement:

Same and Different (Unit 1); 2D Shape Recognition (Unit 2); More/Less (Unit 3); Measurable Attributes (Unit 4)

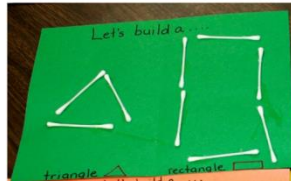
Note that the concept of “sorting” is also intentionally embedded.

Please offer one of these “Concept Reinforcement” Math centers weekly, for 1-2 days.

Note that “Concept Reinforcement” centers are IN ADDITION TO “Concept Development” Math centers, which are offered daily (see page 2).

2D Shape Recognition

- Invite children to build shapes with cotton swabs or craft sticks.
- Use craft sticks to create a simple shape matching game, as explained here: <http://www.education.com/activity/article/halves/>
- Provide magazines, scissors, glue, and a premade booklet (pages of construction paper or newsprint) to invite children to create shape books. Children cut pictures from magazines and glue them on a page.



(image courtesy of prekinders.com)

More/Less; Same/Different – PomPom Practice

Revisit some old favorites!

Option 1 - 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.



Option 2 - 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.



Same and Different –Duplo Challenge

In advance, build several very basic structures from Duplos 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.



Measurable Attributes – Height and Length

Encourage children to explore the concepts of height and length by creating a center where children measure themselves and their friends with blocks.

Be sure to provide a clipboard and writing tools to document “I am ___ blocks tall”; encourage children to use tablets to document their work with photos, too.



Additional Activities to Reinforce Skills (click links to view explanations)

- Create a fun, [Open-Ended Playdough Math](#) center.
- Create a graph of your favorite books to compare more/less.
- Create a [giant block puzzle](#) to promote shape recognition.