



Math Connections

The games, projects, and activities in *SAY IT WITH SHAPES AND NUMBERS* span the key topics in the NAEYC/NCTM Joint Position Statement on Early Childhood Mathematics¹, and the Kindergarten Common Core State Standards for Mathematics².

Use the charts on pp. 106-109 to match the games, projects, and activities, along with their variations, to math content by level of difficulty:

- **Ages 3-4 (Easy)** reflects the key topics in the NAEYC/NCTM Joint Position Statement on Early Childhood Mathematics;
- **Ages 4-5 (Medium)** reflects the key topics in the NAEYC/NCTM Joint Position Statement on Early Childhood Mathematics;
- **Ages 5-6 (Hard)** reflects the key topics in the Kindergarten Common Core Standards for Mathematics.

Levels also reflect “typical” 3-4 year old, 4-5 year old, and 5-6 year old cognitive, social, language, fine motor, and other skills. Keep in mind that young children vary widely in abilities. Some people start with Easy for almost any age and then move up as needed.

SAY IT WITH SHAPES AND NUMBERS offers a rich foundation for engaging young children in exploring a wide range of mathematical topics, in appreciating the role of math in everyday life, and in establishing comfort and confidence in math—in school or out. You can use the activities, games, and projects in the book to prepare children for Pre-Kindergarten or Kindergarten, to complement any Pre-Kindergarten or Kindergarten math curriculum, and to integrate math into children’s socializing, playing, and exploring. All children—no matter where they are along the developmental trajectory—will benefit.

¹National Association for the Education of Young Children, & National Council of Teachers of Mathematics (2002, 2010). *Position statement. Early childhood mathematics: Promoting good beginnings*. Retrieved from <http://www.naeyc.org/files/naeyc/file/positions/psmath.pdf>.

²National Governors Association Center for Best Practices, & Council of Chief State School Officers. (2010). *Common Core State Standards for Mathematics*. Washington, DC: National Governors Association Center for Best Practices, & Council of Chief State School Officers.

Math Connections (includes activity variations)



| | | Ages 3-4 (Easy) | | | | | Ages 4-5 (Medium) | | | | |
|----------------------------|-------------------------------------|------------------------|---------------------------------|-------------|-------------------------------|----------------------------|------------------------|---------------------------------|-------------|-------------------------------|----------------------------|
| | | Numbers and operations | Patterns and algebraic thinking | Measurement | Displaying and analyzing data | Geometry and spatial sense | Numbers and operations | Patterns and algebraic thinking | Measurement | Displaying and analyzing data | Geometry and spatial sense |
| Games | Match, p. 2 | ✓ | | | ✓ | | ✓ | | | ✓ | |
| | Share the Teddy Bears, p. 4 | ✓ | ✓ | | | | ✓ | ✓ | | | |
| | Same or Different?, p. 5 | ✓ | | | | | ✓ | | | | |
| | Secret Card, p. 6 | | | | | | ✓ | | ✓ | ✓ | ✓ |
| | Piggy Bank, p. 8 | ✓ | | | | | ✓ | | ✓ | ✓ | ✓ |
| | Dinosaur Dash, p. 10 | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| | Hide, Share, Compare, p. 13 | ✓ | | | | | ✓ | | ✓ | ✓ | ✓ |
| | Empty the Toy Box, p. 14 | | | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| | Flip and Match, p. 16 | ✓ | | | ✓ | | ✓ | | | ✓ | |
| Projects and Crafts | Revise Your Size, p. 34 | | | ✓ | | | | ✓ | | | |
| | Strawberries and Blueberries, p. 35 | ✓ | | | | | ✓ | | | | |
| | Soaring Towers, p. 36 | ✓ | | ✓ | | ✓ | ✓ | | ✓ | | ✓ |
| | Picture Book, p. 37 | ✓ | ✓ | | | | ✓ | ✓ | | | |
| | Fill It Up, p. 38 | ✓ | | ✓ | | ✓ | ✓ | | ✓ | | ✓ |
| | Cityscape, p. 39 | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ |
| | Watch Me Grow, p. 40 | | | ✓ | ✓ | | | | ✓ | ✓ | |
| | Make a Mask, p. 41 | | | | | | | | | | ✓ |
| | Chain Challenges, p. 42 | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | | |
| | Towering Toothpicks, p. 43 | | | ✓ | | ✓ | | | ✓ | | ✓ |
| | Make It Morse, p. 44 | | | | | | ✓ | | | | ✓ |
| | Hands on the Wall, p. 46 | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ |
| | Copy Cat, p. 47 | ✓ | ✓ | | | ✓ | | ✓ | | | ✓ |
| | Say It with Shapes, p. 48 | | ✓ | | | ✓ | | ✓ | | | ✓ |
| Picture Poems, p. 50 | ✓ | | | | ✓ | | | | | ✓ | |

| | | Ages 5–6 (Hard) | | | | |
|----------------------------|-------------------------------------|--------------------------|-----------------------------------|---------------------------------|----------------------|----------|
| | | Counting and Cardinality | Operations and Algebraic Thinking | Number / Operations in Base Ten | Measurement and Data | Geometry |
| Games | Match, p. 2 | ✓ | | | ✓ | ✓ |
| | Share the Teddy Bears, p. 4 | ✓ | ✓ | | | |
| | Same or Different?, p. 5 | ✓ | ✓ | | | |
| | Secret Card, p. 6 | ✓ | | | ✓ | ✓ |
| | Piggy Bank, p. 8 | ✓ | ✓ | ✓ | | |
| | Dinosaur Dash, p. 10 | ✓ | ✓ | ✓ | | |
| | Hide, Share, Compare, p. 13 | ✓ | ✓ | | | |
| | Empty the Toy Box, p. 14 | ✓ | ✓ | | | |
| | Flip and Match, p. 16 | ✓ | ✓ | | ✓ | |
| Projects and Crafts | Revise Your Size, p. 34 | | | | ✓ | |
| | Strawberries and Blueberries, p. 35 | ✓ | ✓ | | | |
| | Soaring Towers, p. 36 | ✓ | | | ✓ | ✓ |
| | Picture Book, p. 37 | ✓ | ✓ | ✓ | | |
| | Fill It Up, p. 38 | ✓ | | | ✓ | ✓ |
| | Cityscape, p. 39 | | | | ✓ | ✓ |
| | Watch Me Grow, p. 40 | | | | ✓ | |
| | Make a Mask, p. 41 | | | | | ✓ |
| | Chain Challenges, p. 42 | ✓ | | ✓ | ✓ | |
| | Towering Toothpicks, p. 43 | ✓ | | | ✓ | ✓ |
| | Make It Morse, p. 44 | ✓ | ✓ | | | |
| | Hands on the Wall, p. 46 | ✓ | ✓ | | ✓ | ✓ |
| | Copy Cat, p. 47 | | | | | ✓ |
| Say It with Shapes, p. 48 | | | | | ✓ | |
| Picture Poems, p. 50 | | | | | ✓ | |

| | | Ages 3-4 (Easy) | | | | | Ages 4-5 (Medium) | | | | |
|--------------------------|--------------------------------|------------------------|---------------------------------|-------------|-------------------------------|----------------------------|------------------------|---------------------------------|-------------|-------------------------------|----------------------------|
| | | Numbers and operations | Patterns and algebraic thinking | Measurement | Displaying and analyzing data | Geometry and spatial sense | Numbers and operations | Patterns and algebraic thinking | Measurement | Displaying and analyzing data | Geometry and spatial sense |
| Food and Water | Fill It or Spill It, p. 72 | ✓ | | ✓ | | ✓ | | ✓ | | ✓ | |
| | Snack Station, p. 73 | ✓ | | | | | | ✓ | | | |
| | Water Wonders, p. 74 | | | ✓ | | ✓ | | ✓ | | ✓ | |
| | One for You, One for Me, p. 75 | ✓ | ✓ | | | | ✓ | ✓ | | | |
| | Pretend Picnic, p. 76 | ✓ | ✓ | | | | ✓ | ✓ | | | |
| | What's Inside?, p. 77 | ✓ | | | | | ✓ | | | | |
| | In the Bag, p. 78 | | | | | | ✓ | | | ✓ | |
| | My Height in Boxes, p. 79 | ✓ | | ✓ | | ✓ | ✓ | | ✓ | ✓ | |
| | The Counting Chef, p. 80 | ✓ | | ✓ | | | ✓ | | ✓ | | |
| Good for Groups | Catch the Beat, p. 82 | | ✓ | | | | ✓ | | | | |
| | Group Up, p. 83 | ✓ | | ✓ | ✓ | | ✓ | | ✓ | ✓ | |
| | Stand and Vote, p. 84 | ✓ | | | ✓ | | ✓ | | ✓ | | |
| | Quick Questions, p. 85 | ✓ | | | ✓ | | ✓ | | ✓ | | |
| | Toy Store, p. 86 | ✓ | | | | | ✓ | | | | |
| | Who's Here?, p. 88 | ✓ | | | ✓ | | | | ✓ | | |
| | Line Up, p. 89 | ✓ | | ✓ | ✓ | | ✓ | | ✓ | | |
| | Treasure Hunt, p. 90 | | | ✓ | | ✓ | | | ✓ | ✓ | |
| Anytime, Anywhere | Words on the Wall, p. 92 | | | | | | ✓ | | ✓ | | |
| | Yes, No, Maybe, p. 93 | | ✓ | | ✓ | | | ✓ | ✓ | | |
| | How Far Can You Go?, p. 94 | ✓ | | ✓ | | | ✓ | | ✓ | | |
| | What's on the Page?, p. 95 | ✓ | | | ✓ | ✓ | ✓ | | ✓ | ✓ | |
| | Seeing Shapes, p. 96 | | | | ✓ | ✓ | | | ✓ | ✓ | |
| | Take Two, p. 98 | ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |

| | | Ages 5-6 (Hard) | | | | |
|--------------------------|--------------------------------|--------------------------|-----------------------------------|---------------------------------|----------------------|----------|
| | | Counting and Cardinality | Operations and Algebraic Thinking | Number / Operations in Base Ten | Measurement and Data | Geometry |
| Food and Water | Fill It or Spill It, p. 72 | ✓ | | | ✓ | ✓ |
| | Snack Station, p. 73 | ✓ | | | ✓ | |
| | Water Wonders, p. 74 | | | | ✓ | ✓ |
| | One for You, One for Me, p. 75 | ✓ | ✓ | | | |
| | Pretend Picnic, p. 76 | ✓ | | | | |
| | What's Inside?, p. 77 | ✓ | | | ✓ | |
| | In the Bag, p. 78 | | | | | ✓ |
| | My Height in Boxes, p. 79 | ✓ | | | ✓ | ✓ |
| | The Counting Chef, p. 80 | ✓ | ✓ | | ✓ | |
| God for Groups | Catch the Beat, p. 82 | ✓ | | | | |
| | Group Up, p. 83 | ✓ | | | ✓ | |
| | Stand and Vote, p. 84 | ✓ | | | ✓ | |
| | Quick Questions, p. 85 | ✓ | ✓ | | ✓ | |
| | Toy Store, p. 86 | ✓ | ✓ | ✓ | | |
| | Who's Here?, p. 88 | ✓ | ✓ | ✓ | ✓ | |
| | Line Up, p. 89 | ✓ | | | ✓ | |
| | Treasure Hunt, p. 90 | | | | ✓ | ✓ |
| Anytime, Anywhere | Words on the Wall, p. 92 | ✓ | | | ✓ | |
| | Yes, No, Maybe, p. 93 | | | | ✓ | |
| | How Far Can You Go?, p. 94 | ✓ | | | ✓ | |
| | What's on the Page?, p. 95 | ✓ | | | ✓ | ✓ |
| | Seeing Shapes, p. 96 | | | | ✓ | ✓ |
| | Take Two, p. 98 | ✓ | ✓ | | | ✓ |

