

<p>Unit 4</p>  <p>Week 5</p>	<p><i>Small Groups: Games Games Games*</i></p> <p>Low to Medium Support</p>	<p>Math SG1 AND SG 2</p>	<p>Standards:</p> <p>MELDS.M.CCC.PS.1 MELDS.CCC.PS.6 MELDS.M.OAT.PS.2 MELDS.M.OAT.PS.3 MELDS.M.OAT.PS.4</p>
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<p><i>Guiding Math Ideas:</i></p> <ul style="list-style-type: none"> ● Math Enthusiasm- Playing Math Games Indoors and Outdoors ● Rote and Rational counting- Growing understanding of cardinality <p><i>Math Concepts from Unit Learning Progressions:</i></p> <ul style="list-style-type: none"> ● Transition from rote to rational counting strategies- Keeping track of numbers counted ● Showing understanding that how many means the last number counted and represents the amount in the entire group. ● Beginning to compare groups using counting strategies ● Introducing number paths

<p><i>Materials:</i></p> <ul style="list-style-type: none"> ● grid games templates ● short and long path templates ● small manipulatives or counters (e.g., small erasers, etc.) ● dice (use 1 or 2) ● accompanying texts from Unit 4, such as <i>Millions of Snowflakes, Mouse Shapes, Crayola Sorting Book, Cat’s Colors, Dog’s Colorful Day, The Jacket I Wear in the Snow</i>, etc. 	<p><i>Math Vocabulary:</i></p> <ul style="list-style-type: none"> ● comparing groups: looking at 2 groups of things and deciding which has more and which has less.
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Preparation:

Use the grid games and short and long path templates. Create grid games with themes that match class’ interests or seasonal themes. An excellent free source for grid games and other math games : <https://www.prekinders.com/grid-games/> Copy as needed and laminate if possible for multiple use. Small erasers or art materials are not necessary, but are additions to help maintain interest. For example, ladybug erasers can be used with the Leaf Grid Game. Small white pom poms or cotton balls make perfect “snowballs” for the snowflake game.

The long path template is just a sample. Create paths with varying the length and types of squares, and insert images for the “goal” of the game, such as The Car I Ride to School, with a child at one end, car counters, and a schoolhouse at the other end.

Procedure:

This week is all about playing math games using grids, short paths, and long paths. Small group time is Game Time as we wrap up one of this Unit's major math goals: Finding the math in games. Choose the type of game and the level of difficulty, or have different levels of games available on the math shelves and follow the children's lead.

Vary the games from day to day and pair with books to spark interest. For example, read Millions of Snowflakes during SWPLM, and then use the Snowflake Grid Games or the Snowman Short Path Game. Vary the difficulty by choosing dice- 1 Die with 3 or 6 dots, or 2 dice that require children to count all of the dots on the 2 dice to figure out how to move their manipulatives across the game board.

Grid games are perfect tools for assessing 1:1 correspondence skills, cardinality, and subitizing. Each child has her/his own game board, with a common basket of manipulatives. Grid games are not direct competition games. Each child takes turns rolling a die or the dice, counting and placing a manipulative on each square. When the card is filled, the game is over. Grid game difficulty can also be adjusted by using the 10 square or 20 square boards.

Short path and long path games allow children to easily see *how many* squares they need to reach their goals. Short path games need 3 dot dice. Both Long and Short Path Games add the concept of counting on.

Encourage beginning operations with classic Math Questions:

How many dots are there?

How many all together (when counting the dots on 2 dice)

How many do you need to reach the XXX (end goal of game).

*Let's **compare** our groups. That means finding out which group has more and which has less.*

Can you get to the end of your path in one roll of the dice?

Let's count all the Ladybugs on your card. Do you have more or less than Susie?

Games also encourage modeling of accurate 1:1 correspondence and effective counting strategies.

Strategies to Provoke Math Thinking:

- Modeling: Children's 1:1 counting has many dimensions. Children may have the correct order for number names and they may be pointing a one object at a time, but they may not be synchronizing naming and pointing. As children count and place objects, observe whether or not their skills in counting and naming need additional support. Model a counting strategy, such as moving one object from left to right as you count, or counting along with a child.
- Variations in the ability to conserve number: Children who play these games will demonstrate their understanding of number conservation and stability of groups. Some children will not be

bothered by the fact that they count their objects and get a different number each time they count. They are not yet conserving number, realizing that the number of objects in a group does not change unless they add or subtract items. Other children will count and correct their mistakes, demonstrating their understanding of number conservation. Support children's growth with numerous opportunities to count and recount objects.

- Learning from "mistakes"- By reducing the competition side of games, children are more free to make mistakes in counting. Grid games are less competitive than Long Path Games, but if each child has a pathway, they can focus more on reaching their goal, rather than winning by getting to the end before another child.

Adaptations for Additional Challenge:

- Some children are ready to add the numbers of 2 dice as well as easily subitize the different number configurations. Provide a variety of ways for children to model the addition operation- through manipulation of materials, through writing, or through placing numerals and the + symbol as they begin to create simple equations.

Documentation:

Use anecdotal notes as well as Counting Sheets to document children's counting skills and plan for counting games and activities in Units 5 and 6. One of the major goals of preschool math is to work towards accurate 1:1 correspondence and the other steps in rational counting.

Provocation:

Outdoor counting games, including those games where children Count Down such as Hide and Seek reinforce children's knowledge of the number word list and the Stable order rule. Bring chants and rhymes outdoor as well, such as 10 little monkeys jumping in the sand yard. One jumped out and then there were 9, etc.