
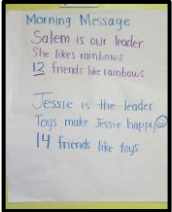







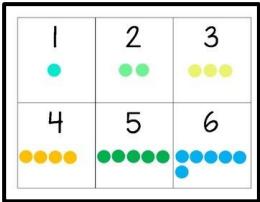






Professional Learning Module  
Mathematical Thinking: Rethinking Calendar Time






**Rethinking Calendar Time: Better Practices**

Traditional Calendar Time Activity	Addressing the math concept, a different way.
<p>Calendar time is typically a whole group instruction practice where children do “calendar math.” Often a wall or poster is set up with an elaborate display of calendar related materials with a 31-day calendar grid.</p>  <p><b>Why this doesn't work:</b> Understanding of temporal patterns (time-based) doesn't emerge for children until around third grade.</p>	<p><b>Whole Group Time</b></p> <p>During the morning circle, have children sing, share, or compose a morning message that sets the tone for the day.</p>  <p><b>Why this works:</b> The first whole group meeting of the day should be a time when children greet each other and come together as a community of learners.</p>
<p>What is today, yesterday, tomorrow?</p>  <p><b>Why this doesn't work:</b> Children in the pre-operational stage of development (ages 2-7) can think about past and future events but have difficulty in labeling them with yesterday or tomorrow.</p>	<p><b>Temporal Time</b></p> <p>Display a picture schedule at the child's eye level to reinforce concepts such as <i>later</i>, <i>before</i>, and <i>after</i> during daily activities.</p>  <p><b>Why this works:</b> Children's reality of time is more concrete, for example, we have a snack before going outside and eat lunch after story time. A picture schedule is an authentic way to support children with the daily schedule and routine and supports the concepts of later, before, after.</p>
<p>Saying or singing the days of the week.</p>  <p><b>Why this doesn't work:</b> This may be a fun song to do but doesn't help children understand the days of the week.</p>	<p><b>Temporal Time</b></p> <p>Associate each day of the week with a different activity that takes place, such as Musical Monday, Toss-the-Beanbag Tuesday, and so on.</p>  <p><b>Why this works:</b> This helps children make a real-life connection to the days of the week.</p>

## Rethinking Calendar Time: Better Practices

<p><b>Traditional Calendar Time Activity</b></p> <p>What is the date?</p>  <p><b>Why this doesn't work:</b> Recognizing a numeral is a math skill children need to know, however, asking them to find a “naked” number at the beginning of the year could be confusing and frustrating for many children.</p> <p>A “naked” number is naming a numeral without the understanding quantity.</p>	<p><b>Addressing the math concept, a different way.</b></p> <p><b>Number Sense:</b> Recognizing numerals</p>  <p>Provide children with a number card depicting a number (1-10) in dots or numeral form and ask them to go on a scavenger hunt to retrieve that many objects.</p> <p><b>Why this works:</b> Developing number sense requires children to have a meaningful sense of a number's quantity. To do so, they need experiences using number names to describe “how many” objects are in a set before using numbers to represent that set.</p>
<p>What is the month? Let's sing the months of the year.</p>  <p><b>Why this doesn't work:</b> Naming the month and singing the month song are rote, memorization activities and doesn't help children understand what a month represents.</p>	<p><b>Temporal Time</b> A linear calendar is easily made using a long sheet of paper with the numbers displayed as a number line. Events for the month are noted or added as they occur throughout the month.</p>  <p><b>Why this works:</b> Linear calendars provide a visual representation of each month and when displayed around the room help children remember past events.</p>
<p>Counting the days using the traditional calendar.</p>  <p><b>Why this doesn't work:</b> The main problem with the calendar is that the groups of seven days in the rows of a calendar have no useful mathematical relationship to the number 10, the building block of the number system.” (National Research Council 2009, p.241)</p>	<p><b>Rote counting</b> Displaying a Numbers 1-100 Chart demonstrates the base-10 structure of our number system and helps preschoolers understand the repetitive nature of counting.</p>  <p><b>Why this works:</b> Learning and reciting the names of the numbers has its place in the process of learning to count, just as children learn to memorize the alphabet with songs and games. Providing a 10-based grid supports the understanding of how our number system becomes repetitive.</p>

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Traditional Calendar Time Activity	Addressing the math concept, a different way.
<p>What is the pattern? What goes next?</p>  <p><b>Why this doesn't work:</b> It isn't possible for children to recognize the repeating nature of a pattern when the pattern is displayed on a 7-day calendar grid. At the beginning of the year, children need many experiences of copying and recognizing a pattern before being asked to extend the pattern.</p>	<p><b>Patterns and Seriation</b> Create different types of patterns using musical instruments or body movements. Children can also form "people patterns" using colors of clothing, or by gender: boy, girl, boy, girl, boy, girl.</p>  <p><b>Why this works:</b> In order to recognize or extend a pattern it must have at least three iterations, i.e., three units of repeat which isn't possible on a 7-day grid. Children need to <i>experience</i> patterns by feeling, hearing or doing.</p> 
<p>What is the shape?</p>  <p><b>Why this doesn't work:</b> It's difficult for children to recognize and name a shape when it's displayed on the calendar as a one-dimensional shape. Asking children to extend a pattern then name a shape includes two different math concepts that children may not be ready for especially at the beginning of the year.</p>	<p><b>Geometric Shapes</b> Shape game – Put a variety of 2-Dimensional shapes in a bag. Ask the children to describe the shape they select, i.e. "it has two long sides and two short sides, it's a rectangle!"</p>  <p><b>Why this works:</b> Children need to learn to recognize and name a shape through experiences that provide hands-on investigation of 2- and 3-Dimensional shapes. They need to describe the shape and be able to verbalize what makes the shape "that" shape to understand the nature of geometric shapes.</p>

For additional information, review the following resources:

- PowerPoint Presentation Understanding the Math
- Instructional Resources: Why I said goodbye to Calendar Time  
<https://teachpreschool.org/2016/09/10/say-goodbye-calendar-time/>
- Instructional Resources: 10 Tips for Circle Time  
<https://teachpreschool.org/2013/03/25/ten-tips-for-circletime/>