

# NM PUBLIC SCHOOL PRESCHOOL NUMBERS & COUNTING

Young children are natural mathematicians as they experiment with their environment using a variety of mathematical concepts (i.e. counting, shapes, & measurement). To promote young children's understanding of numbers, adults should use everyday situations to involve numbers, operations, and counting objects by using one-to-one correspondence (Good & Riggie Ottley, 2019). Children begin to understand the meaning of numbers and recognize the quantity of objects in small groups by counting, as well as subitizing (not counting but instantly seeing how many) through the use of the vocabulary (i.e. one, two, etc.) associated with counting and numbers (Copple & Bredekamp, 2009). It is important for young children to understand three principles of counting: the one-to-one principle (each item counted needs a unique tag or label), the stable-order principle (numbers have a set order), and the cardinal principle (the last number counted represents the quantity in the set of objects counted) (Good & Riggie Ottley, 2019).

Math Concept or Skill	Activities to Support Math Skills
<b>Subitizing</b>	<ul style="list-style-type: none"> <li>• Provide opportunities for children to visually recognize a small number of objects (one to five) without counting</li> <li>• Play dominoes games</li> <li>• Play short and long path games</li> <li>• Play roll/spin or graph games</li> </ul>
<b>One-to-One Correspondence</b>	<ul style="list-style-type: none"> <li>• Introduce counting the dots on a domino.</li> <li>• Have them count as they set the table for friends in dramatic play or at snack</li> <li>• Play matching or card games</li> <li>• Play grid, roll/spin or graph games</li> <li>• Play short and long path games</li> </ul>
<b>Stable-Order Counting</b>	<ul style="list-style-type: none"> <li>• Play grid, roll/spin or graph games</li> <li>• Play short and long path games</li> <li>• Play matching or card games</li> <li>• Play dominoes or patterning games</li> <li>• Count plates at dinner or counting number of children at circle time</li> <li>• Sing number &amp; counting songs</li> </ul>
<b>Cardinal Principle</b>	<ul style="list-style-type: none"> <li>• Play grid, roll/spin or graph games</li> <li>• Play short and long path games</li> <li>• Play matching, dominoes, or card games</li> <li>• Stack and count Legos, unifix cubes or blocks</li> </ul>
<b>Make sure numerals are visible in the classroom by labeling room with numbers, reading and making number books.</b>	

References:

Copple, C., & Bredekamp, S. (2009). *Developmentally appropriate practice in early childhood programs: serving children from birth through age 8*. Washington, D.C.: National Association for the Education of Young Children.

Good, S. C., & Riggie Ottley, J. (2019). Learning Mathematics through Everyday Play Activities: Enhancing Exposure and Master. *Young Children*, 74(3), 73-78.

PED. (2020). New Mexico Early Learning Guidelines.

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**Counting Songs-** These songs are interactive and can be sung using finger puppets, props (such as decorated popsicle sticks or chip clips), or by children using body movement or acting it out.

**(EI 9.1 One-to-One Correspondence; 9.3a Rote Counting; 9.3b Numerals; 20.1 Cooperative Play; 5.2 Follows Directions)**

## Ten Little Children

*This could be sung by labeling the children with numerals and asking them to stand up when their number is sung.*

One little, two little, three little children. Four little, five little, six little children.  
Seven little, eight little, nine little children. Ten children in the room.  
Ten little, nine little, eight little children. Seven little, six little, five little children.  
Four little, three little, two little children. One child in the room.

## Five Little Speckled Frogs

Five little speckled frogs, Sat on a speckled log.  
Eating the most delicious worms YUM, YUM.  
One jumped into the pool, Where it was nice and cool.  
Then there were four green speckled frogs GLUG, GLUG.  
Four little speckled frogs,  
Continue until all the frogs have gone.

## One, Two, Three, Four, Five

1, 2, 3, 4, 5, Once I caught a fish alive, 6, 7, 8, 9, 10, Then I let it go again.  
Why did you let it go? Because it bit my finger so,  
Which finger did it bite? This little finger on the right.

## Five Fat Peas

Five fat peas in a pea pod pressed (*children hold hand in a fist*)  
One grew, two grew, so did all the rest. (*put thumb and fingers up one by one*)  
They grew and grew (*raise hand in the air very slowly*)  
And did not stop, until one day the pod went POP! (*children clap hands together*)

## This Old Man

This old man, he played one, He played knick-knack on my thumb.  
With a knick-knack paddywhack, give a dog a bone, this old man came rolling home.  
This old man, he played two, He played knick-knack on my shoe.  
With a knick-knack paddywhack, give a dog a bone, this old man came rolling home.  
This old man, he played three, He played knick-knack on my knee...etc.  
This old man, he played four, He played knick-knack on my door...etc.  
This old man, he played five, He played knick-knack on my hive...etc.  
This old man, he played six, He played knick-knack on my sticks...etc.  
This old man, he played seven, He played knick-knack up in Heaven...etc.  
This old man, he played eight, He played knick-knack on my gate...etc.  
This old man, he played nine, He played knick-knack on my spine...etc.  
This old man, he played ten, He played knick-knack once again...etc.

### References:

Copple, C., & Bredekamp, S. (2009). *Developmentally appropriate practice in early childhood programs: serving children from birth through age 8*. Washington, D.C.: National Association for the Education of Young Children.

Good, S. C., & Riggie Ottley, J. (2019). Learning Mathematics through Everyday Play Activities: Enhancing Exposure and Master. *Young Children*, 74(3), 73-78.

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