

Leveling Math Workstations in Grades K-2

What's That, Why Do It, and How?



What are workstations?

The purpose of the workstation is for students to make sense of the math that they are learning.

They are spaces to learn, to grow, to be challenged and to stretch. They are familiar. Students should never be at a workstation that they don't understand. Great workstations allow students to solidify their content knowledge and skills through purposeful practice.

Why level workstations?

If everyone does the same thing at the same time, then we have some students who are bored and others who are frustrated. So we do leveled workstations so that everyone is working on activities that are just right for their level.

Leveled workstations are about giving students the opportunity and the time needed to learn and own the mathematical ideas they are working with. In order to level, we have to be aware of the different developmental stages of learning a concept. We need to know what came before the standard, what came after the standard and what the microprogressions are within the standard.

How do you level workstations?

Assessment is the key. We have to know where students are so we can decide where and how we need to take them next on their learning journey. For example, in kindergarten, there are 20 levels of counting. If we know what level our students are on then we can set up counting activities that are appropriate for practice.

Reflection Question

How well would you say that the teachers on your grade level know the developmental learning continuums for counting, numbers, place value, basic fact fluency and word problems?

Leveling
Counting
Workstations

In Chapter 4 of *Leveling Math Workstations*, Dr. Nicki Newton looks at the role of the learning trajectories and how they should influence our set-up of counting workstations. Counting workstations should go way beyond setting up counting jars and counting bags. There are 20 levels of counting and we need stations that address the various needs of the students in our classrooms so that they are working on meaningful activities. Here are a few examples of leveled workstation activities for counting levels 6, 7 and 8.

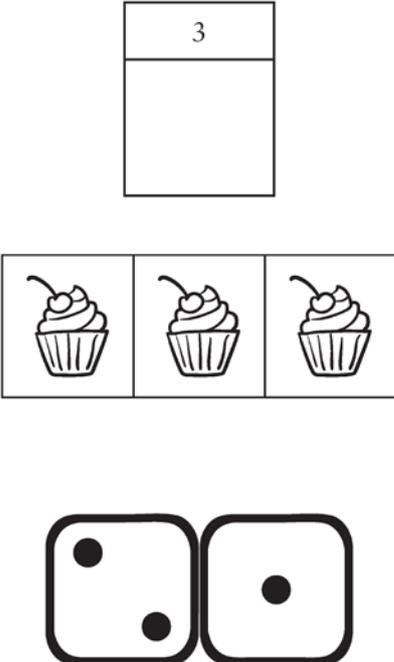
Leveling the Stations

Station A: Correlate to Level 6

Level 6: Students should be able to count verbally to ten and have cardinality within five. They can count objects that are in a line. These are some activities for working in this workstation. In this station they are counting objects that are already out. They are not necessarily producing a count (see Figure 4.3).

Figure 4.3
Level 6

Figure 4.3 Examples of Level 6

Students Take a Counting Mat and Count Out the Things on It	Students Sort Different Pictures Onto the Correct Counting Mat
	

Station B: Correlate to Level 7

In this level, students are not only counting objects up to 5; they are producing a count of objects at least to 4 (see Figure 4.4).

Figure 4.4 Examples of Level 7

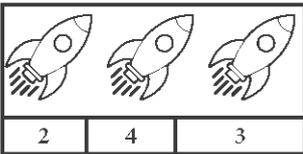
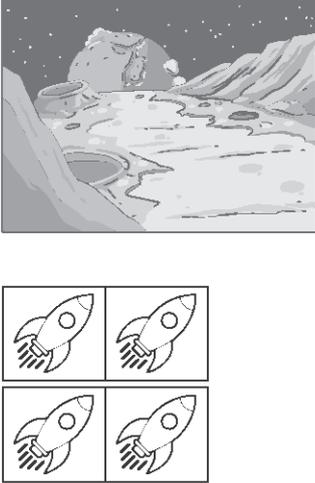
Scaffolded Count	Producing a Count Scaffolded	Producing a Count Unscaffolded
<p>Here, students are just counting the amount. The pictures are already there.</p> 	<p>Here, the students have to produce the count. The dot lets the students know how many to count out.</p> 	<p>Here, the students have to produce the count but there is no scaffold. However, on the back you can have the number of dots for how many bears there should be so that students can check their work.</p>  
<p>I can count rocket ships!</p> 	<p>Count out 5 counters.</p> 	<p>Count out 3 rocket ships!</p> 

Figure 4.4
Level 7

Figure 4.5
Level 8

Station C: Correlate to Level 8

At this level, students can count structured arrangements up to 10. They can produce objects with a scaffold. They can also write or draw to represent 10. Furthermore, students at this level can find the number just after or just before another number BUT only be counting up from 1 (see Figures 4.5 and 4.6).

Figure 4.5 Examples of Level 8

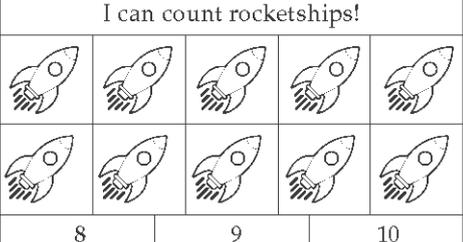
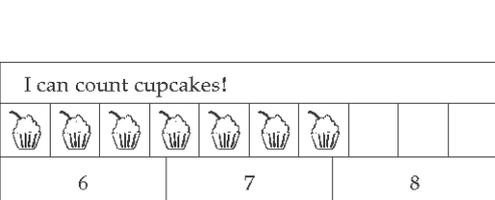
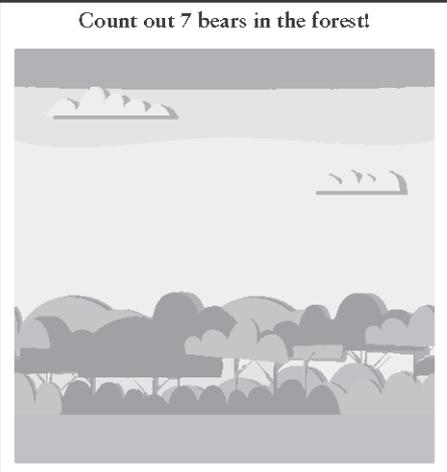
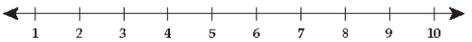
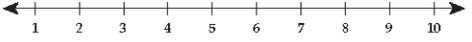
Counting Structured Arrangements Up to 10	Produce Objects With a Scaffold																				
<p>I can count rocketships!</p> 	<p>Students set up the counting board. Then they count out the designated number onto the counting mat.</p>																				
<p>I can count cupcakes!</p> 	<p>Count out 7 bears in the forest!</p> 																				
	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> <p>Students first count out bears onto the counting path. Then, they count from the counting path and put 7 bears in the forest.</p>	1	2	3	4	5	6	7	8	9	10										
1	2	3	4	5	6	7	8	9	10												

Figure 4.6
Level 8

Figure 4.6 More Examples of Level 8

Write Up to 10 to Represent a Number	Draw Up to 10 to Represent a Number	Name the Number Just After or Just Before Another Number Up to 10												
<p>Trace the number that tells how many.</p>  <p>1 2 3 4 5 6 7 8 9 10</p>	<p>Draw 7 squares.</p> <div style="border: 1px solid black; height: 70px; width: 100%;"></div>	<p>What number comes before 8?</p> <p>1, 2, 3, 4, 5, 6, ____, 8</p> 												
<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Roll it!</th> <th>Write it!</th> <th>Count it!</th> </tr> </thead> <tbody> <tr> <td></td> <td>5</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Roll it!	Write it!	Count it!		5								<p>Draw 6 circles.</p> <div style="border: 1px solid black; height: 70px; width: 100%;"></div>	<p>What number comes after 8?</p> <p>1, 2, 3, 4, 5, 6, 7, 8, ____</p> 
Roll it!	Write it!	Count it!												
	5													
<p>The above cards are scaffolded; these ones below are unscaffolded.</p>														
<p>What number comes before 8?</p> <p>1, 2, 3, 4, 5, 6, ____, 8</p>														
<p>What number comes after 8?</p> <p>1, 2, 3, 4, 5, 6, 7, 8, ____</p>														

Read more about leveling different kinds of math workstations in Dr. Nicki Newton's newest book

Workstations covered include Counting Workstations, Number Workstations, Place Value Workstations, Fluency Workstations and Word Problem Workstations, with a practical concluding chapter on Action Planning. This last chapter guides you in creating a specific plan so that you can start doing leveled workstations right away.

Purchase your copy of *Leveling Math Workstations in Grades K-2: Strategies for Differentiated Practice* by Dr. Nicki Newton today!

