Math Perspectives
Teacher Development Center

| **FIRST GRADE**: By the end of the year: p. 1 of 3 | | | | |
|---|---|---|---|---|
| **Assessment** | **Below Grade Level** | **Basic** | **Proficient** | **Advanced** |
| **Counting** | | | | |
| **#1 Counting Objects**<br>Task 1: Counting Objects | Not able to count up to 32 objects with accuracy | Counts up to 32 objects, usually accurate | Counts up to 50 objects with ease and accuracy in a variety of informal situations | Counts up to 100 or more objects in a variety of informal situations |
| Task 2: Counting Out a Quantity | Not able to consistently count out a quantity of up to 18 objects | Counts out a quantity of up to 18 objects with ease and accuracy | Counts out quantities up to 50 or more in a variety of informal situations. | Counts out quantities up to 100 or more in a variety of informal situations |
| Task 3: One More/One Less | **When presented numbers out of sequence:**<br>Does not know 1 more without counting for numbers to 21 and 1 less without counting for numbers 8 and less | **When presented numbers out of sequence:**<br>Knows 1 more without counting for numbers to 21 and 1 less for numbers from 8 | **When presented numbers out of sequence:**<br>• Knows 1 more without counting for numbers to 21 and 1 less for numbers from 21<br>• Knows 1 more for numbers over the 10s to 99 (e.g. 1 more than 59 is 60)<br>• Identifies 1 less over the 10's (e.g. 1 less than 50 is 49) for some numbers to 99 with effort | **When presented numbers out of sequence:**<br>• Knows 1 more without counting for numbers to 21 or more and 1 less for numbers from 21 and beyond<br>• Knows 1 more for numbers over the 10s to 99 (e.g. 1 more than 59 is 60)<br>• Knows 1 less over the 10's for numbers to 99. (e.g. 1 less than 50 is 49)<br>• Knows 1 more and 1 less for numbers to 100 and beyond |
| **Number Relationships** | | | | |
| **#2 Changing Numbers** | **When working with numbers to 10:**<br>Changes one number to another by counting all and adding one at a time or removing extras | **When working with numbers to 10:**<br>• Changes a number to another larger number by counting (adding) on; figures out how many added<br>• Changes a number to a smaller number by removing the extras or counting back; figures out how many taken away | **When working with numbers to 10:**<br>• Changes a number to another larger number by counting (adding) on; tells how many added with ease<br>• Changes a number to a smaller number by removing the extras; tells how many taken away with ease<br>• **When working with numbers to 20:**<br>Changes a number to another larger number by counting all and adding on one at a time; may not know how many added<br>• Changes a number to a smaller number by counting all and removing the extras or counting back; may not know how many taken away | **When working with numbers to 10:**<br>•Tells how many needed to add or take away when changing one number to another<br><br>**When working with numbers to 20:**<br>•Changes a number to another larger number by counting all and adding on one at a time; tells how many added<br>• Changes a number to a smaller number by counting all and removing the extras; tells how many taken away |

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| **FIRST GRADE**: By the end of the year: p. 2 of 3 | | | | |
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| **Assessment** | **Below Grade Level** | **Basic** | **Proficient** | **Advanced** |
| **Comparing Numbers** | | | | |
| **#3 More/Less Trains** | **When Working With Numbers To 12:**<br>**Use Relationships**<br>**How many more/Less**<br>**Comparing Groups**<br>**When the groups are lined up,**<br>When asked, "How many more?" unable to say correct answer, may tell the amount in the larger group | **When Working With Numbers To 12:**<br>**When the groups are lined up,**<br>•Tells how many more for differences up to 3 with ease; figures out for larger differences<br><br>**When the groups are not lined up,**<br>Tells how many in the group with more or is unable to figure out the correct answer | **When Working With Numbers To 12:**<br>**When the groups are lined up,**<br>•Knows how many more for differences up to 3; figures out for larger differences<br>• Can tell how many less for differences of 1 or 2; figures out for larger differences<br><br>**When the groups are not lined up,**<br>•Can figure out how many more and how many less for any difference by using a model | **When Working With Numbers To 12 Or More:**<br>**When the groups are lined up,**<br>• Knows how many more and how many less for any difference<br><br>**When the groups are not lined up,**<br>Knows some differences; can figure out how many more and how many less for any unknown difference |
| **Number Composition and Decomposition** | | | | |
| **#4 Number Arrangements** | **When working with number arrangements:**<br>• Recognizes groups of numbers to 4 instantly<br><br>• Can identify groups of 3 or 4 as part of a larger group but counts all to determine the total | **When working with number arrangements:**<br>• Recognizes groups of numbers to 5 instantly<br>• Can identify groups of 3 or 4 as part of larger group<br>• Knows number combinations to 4 or 5 | **When working with number arrangements:**<br>• Can identify groups of 3 or 4 or 5 as part of larger group<br>• Combines numbers to 7 without counting<br>• Combines numbers to 10 by counting on or using a related combination | **When working with number arrangements:**<br>• Can identify groups of 3 or 4 or 5 as part of larger group<br><br>•Combines number combinations to 10 without counting |
| **#5 Combination Trains** | • Counts all for number combinations totaling 5 or more | •Knows number combinations to 5<br>•Counts all or counts on for larger combinations | •Knows number combinations to 6 and doubles to 10<br>•Counts on or uses a related combination for combinations to 20 | •Knows number combinations to 10<br>•Uses a related combination for combinations to 20 for any combinations not known |
| **#6 The Hiding Assessment** | • Unable to identify the missing parts of 5 instantly | • Identifies all the missing parts instantly for groups of 4 and 5<br>•Figures out the missing part for numbers to 7 with ease and for numbers to 10 with some difficulty | •Identifies the missing part instantly for numbers to 6<br>•Figures out the missing part for numbers to 10 with ease | • Knows missing parts for numbers to at least 10 |

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| FIRST GRADE: By the end of the year: p. 3 of 3 | | | | |
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| **Numbers as Tens and Ones** | | | | |
| **#7 Ten Frames** Part One: Addition Using Ten Frames | **When presented with ten frames:** • Does not use 10s and 1s; combines 2 single-digit numbers totaling more than 10 without regard for grouping into 10s • Counts to combine ten and some more. (e.g. counts to find out the answer to 10 + 5) | **When presented with ten frames:** • Does not use 10s and 1s; combines 2 single-digit numbers totaling more than 10 without regard for grouping into 10s • Combines ten and some more without counting. (e.g. knows 10 and 5 is 15) | **When presented with ten frames:** Combines 2 single-digit numbers totaling more than 10 by organizing them into one ten and figuring out the number of leftovers. Combines the ten and leftovers without counting. (e.g. knows 10 and 5 is 15) | **With and without ten frames available:** • Combines 2 single-digit numbers totaling more than 10 by mentally organizing them into one ten and leftovers and telling how many all together using known combinations •Able to see connections to larger numbers (if 8 + 7 is 15, then 18 + 7 must be 25) |
| **#7 Ten Frames** Part Two: Subtraction Using Ten Frames | **When presented with ten frames:** • Uses the ten frame to figure out how many left when subtracting a number from 10 and some more | **When presented with ten frames:** • Figures out how many left when subtracting a number from 10 and some more. May need a model | **When presented with ten frames:** Figures out how many left when subtracting a number from 10 and some more using known combinations. | **With and without ten frames available:** • Breaks ten apart to subtract mentally with ease •Able to see connections to larger numbers (if 13-6 is 7, then 23 – 6 must be 17) •Breaks apart 10 to subtract from 2 and/or 3-digit numbers |
| **#8 Grouping Tens** | **When working with numbers to 99 that are grouped into tens and leftovers:** • Unable to tell the number of tens and ones • Counts all to determine the total | **When working with numbers to 99 that are grouped into tens and leftovers:** •Counts by ones (or twos) to determine the total | **When working with numbers to 99 that are grouped into tens and leftovers:** •Counts by tens to determine the total •Counts to add or subtract 10 from a number | **When working with numbers to 99 that are grouped into tens and leftovers:** •Knows total quantity instantly when the number of tens and ones is known for numbers to 99 •Adds 10 or subtracts 10 without counting |