| MANIPULATIVE | KINDERGARTEN | $1{ }^{\text {ST }}$ GRADE | $2{ }^{\text {ND }}$ GRADE |
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| Assortment of things to count and sort (e.g., beads, buttons, teddy bears) | K.CC.4, K.CC.5, K.CC. 6 <br> Count the number of objects. <br> Say how many there are. <br> Compare one group of counters to another and say which group has more. <br> K.MD. 3 <br> Sort objects into categories, then count the number of objects in each category. |  |  |


| Colored square inch tiles (acrylic/plastic ones are cheaper than the wooden ones) | K.CC.4, K.CC.5, K.CC. 6 <br> Count the number of objects. <br> Say how many there are. <br> Compare one group of counters to another and say which group has more. <br> NOTE: Use tiles/chips to fill 5frames and 10-frames to help develop counting and sight recognition of the number of tiles/chips. | 1.OA.1, 1.OA.2, 1.OA.3, <br> 1.OA.5, 1.OA. 6 <br> Represent addition and subtraction with objects. <br> NOTE: Use tiles/chips to fill 10frames to help develop addition and subtraction. For example, the following ten-frames depict $8+5=13$. | 2.OA. 3 <br> Determine whether a group of objects has an odd or even number of members. <br> 2.OA. 4 <br> Arrange tiles in rectangular arrays, and use addition strategies to determine the total. |
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| Two-color counters | K.OA.1, K.OA.2, K.OA.3, K.OA.4, K.OA. 5 <br> Represent addition and subtraction with objects. <br> Use objects to show decomposition of numbers. | 1.MD. 2 <br> Lay tiles end to end or connect linking cubes to find the length of an object. [NOTE: paper clips, | 2.OA. 3 <br> Determine whether a group of objects has an odd or even number of members. |
| Linking cubes (2 cm) | Find the number that will make ten. <br> NOTE: Use tiles/chips to fill 5frames and 10-frames to help develop addition and subtraction. | to lay end to end | 2.OA. 3 <br> Determine whether a group of objects has an odd or even number of members. |



Can be used in kinderegarten, but not necessary if linking cubes are available

## K.NBT. 1

Compose and decompose numbers from 11 to 19.
NOTE: A "stick" of 10 linking cubes can be used to represent a unit of 10. Also, common objects (such as straws or popsicle sticks) can be used.

Can be used in $1^{\text {st }}$ grade, but not necessary if linking cubes are available
1.NBT.2, 1.NBT.4, 1.NBT. 6

Represent two-digit numbers as tens and ones.
Add within 100.
Subtract multiples of 10
NOTE: A "stick" of 10 linking cubes can be used to represent a unit of 10 , and ten sticks of 10 can be bundled to represent 100 .
2.OA. 1

Add and subtract within 100.
2.NBT.1, 2.NBT.5, 2.NBT.6, 2.NBT. 7

Represent three-digit numbers as hundreds, tens, and ones.
Add and subtract within 100.
Add and subtract within 1000.


| Ruler (inch and centimeter), yardstick, meter stick, measuring tape | Not used in $1^{\text {st }}$ grade <br> (Students should work with nonstandard measuring tools such as inch tiles, linking cubes, paper clips, etc.) | $\begin{aligned} & \text { 2.MD.1, 2.MD.2, 2.MD.3, } \\ & \text { 2.MD.4, 2.MD.9 } \end{aligned}$ <br> Measure the length of objects using standard measuring tools. |
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| Pattern blocks | K.G.2, K.G.3, K.G.4, K.G.6 <br> Name shapes. <br> Analyze and compare shapes. <br> Compose simple shapes to form <br> larger shapes. | 1. G.2 <br> Compose shapes to create a <br> composite shape. | Gecognize shapes that have <br> specified attributes. |
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| Attribute blocks |  |  |  |


| Geoblocks | K.G.2, K.G.3,K.G.4 <br> Name shapes. <br> Analyze and compare shapes. | $1 . \mathrm{G.2}$ <br> Compose shapes to create $a$ <br> composite shape. | 2.G.1 <br> Recognize shapes that have <br> specified attributes. |
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