MathRack Progression
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MathRack 5
- Supports ideas related to early number sense: cardinality, equivalence, compensation, conservation, commutativity, and associativity
- Quick images - on part/part/whole
- When students understand that 5 is an amount and they stop counting the beads— they can trust the 5.
- When students are able to see 5 inside of 6 or 7. They prioritize the 5.

MathRack 10
- Introduced once the 5 structure is prioritized and the 5 beads are understood as an amount, counting becomes unnecessary.
- 10 Rack is used to support the development of mental imagery of 6 as 5 + 1, 7 as 5 + 2 etc. Do Quick Images to assist with this development.
- Images with the 5 inside will support the understanding that if 5 + 5 = 10, then 6+4 and 7+3 must be 10 because of compensation and associativity— a bead has moved over. Combinations of 10.
- Showing a part, determining what is hidden
- Now the white beads can be subtilized; 2 white are shown with the 5 red (as an image of 7) then only 3 white beads remain on the right.

MathRack 20
- Continue concentrated work with the 5 and 10 MathRacks until children no longer count before introducing the MathRack 20
- Once the 5 and 10 structures are prioritized move to the MathRack 20
- All relationships are supported using the MathRack 20—Spatial, One/two more or less, Benchmarks of 5 and 10, and Part/part/whole
- Strategies can be modeled using the MathRack 20- Plus 0, Doubles, Make 10, 10 Plus something
- Compensation, easy ones and hard ones; one addend shown, imaging the other; minuend shown, imaging the subtrahend
- All Problem solving situations can be modeled with a MathRack 20

No MathRack
- When students can create mental math images in their minds and think flexibly and fluently about numbers 1-20 it is time to stop using the MathRack.