

Grade PK • Module 3

Counting to 10

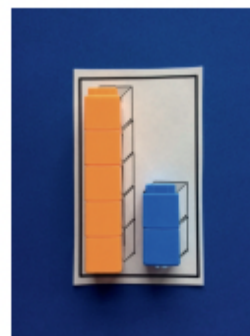
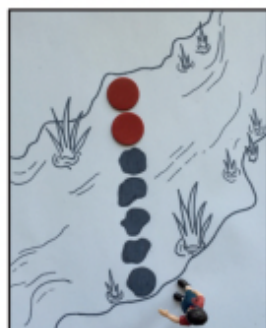
OVERVIEW

Module 3 challenges students to build on their work with numbers through 5 to make sense of and count groups of 0, 6, 7, 8, 9, and 10 objects. Students also continue their work with the number core in the following ways (PK.CC.1–4):

- Rote counting (the number word list up to 15)
- One-to-one correspondence (one object paired with one number word from 0 to 10)
- Cardinality (how many in a set of up to 10 objects)
- Number recognition (matching written numerals 0, 6, 7, 8, 9, and 10 to quantities)

Throughout the module, children participate in engaging experiences that help them make critical connections between these four understandings.

In Topics A and B, students count and touch 1 object at a time (one-to-one correspondence) and recognize pre-written numerals up to seven. They build on their understanding of 5 to see 6 as 5 and 1 more and 7 as 5 and 2 more. Seven can also be seen as 6 and 1 more. The relationship of both 6 and 7 to 5 is emphasized in varied ways with materials: by a color change in two-sided counters after 5, by the addition of the thumb and index fingers of the right hand when counting left to right (i.e., Counting the Math Way), and by placing the sixth and seventh objects next to the first and second objects when making vertical 5 groups (see images below). These relationships are brought out within dynamic story contexts, for example, an explorer crossing a creek and chicks hatching from eggs in their nests.



As in Module 1, students count objects arranged in varied configurations and, in Topic B, match quantities of six and seven to numerals. The pre-written numerals are not introduced until Topic B so that students have plenty of time to simply touch and count before matching the count to the abstract numeral. In this instructional sequence, students also answer *how many* questions, working through the configurations from simple to complex: linear, array, and circular (Pre-K children are not expected to count 6–10 objects in scattered configurations).

Using the familiar sunken pirate ship template and fish, students see that the cardinality of the set does not change when the same number of objects are rearranged. Decomposing and composing numbers follows the lesson on array configurations since the array is a natural place to begin seeing decompositions. “I see a pair here and another pair” leads to “I see two smaller groups inside 6. When I put the groups back together, I have 6 again!”

The simple to complex sequence of lessons in Topics A and B, detailed above, is reiterated three more times in this module; Topics C and D focus on the number 8, Topics E and F on the numbers 0 and 9, and Topics G and H on the number 10 (**PK.CC.3abc, PK.CC.4**). More time is spent with the number 8 because it is the most challenging being 3 away from 5 and 2 away from 10. Likewise, more time is spent with the number 10 because it is foundational to place value understandings and numbers to 20.

The Module culminates with students extending the number books they began with numbers 1 to 5 in Module 1, now adding the numbers 0 and 6–10.
