Grade PK • Module 1

Counting to 5

OVERVIEW

Module 1 capitalizes on the energy and excitement young students have as they enter their first day of Pre-K by providing a playful and active, yet carefully sequenced structure through which children progress.

In this module, we set up a friendly learning environment in which children have sustained interaction with four core ideas, collectively referred to as the number core (**PK.CC.1–4**):

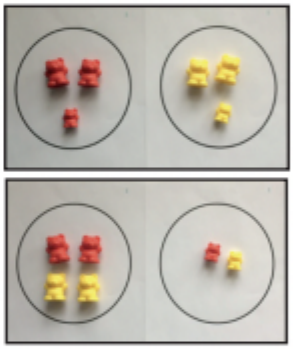
Rote counting (the number word list, i.e., one, two, three…)

One-to-one correspondence (one object paired with one number word)

Cardinality (how many in a set)

Written numerals

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

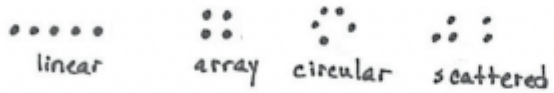


In Topics A and B, students begin exploring the number word list and one-to-one correspondence with quantities to 3. However, their primary learning in these topics is a series of matching and sorting activities that allows them to focus on the attributes of objects (**MP.6**) and articulate their observations (**MP.3**). In Topic A, children match concrete objects in multiple ways using specific vocabulary, e.g., *exactly the same, the same, but…*, to describe their thoughts. In Topic B, children sort objects into groups using given attributes such as color, shape, size, and texture (**PK.MD.2**). This topic lays the foundation for understanding, forming, and counting sets of objects, which leads to the *how many* questions introduced in Topic C.

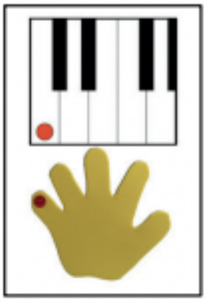
Topics C and D support children in making connections between the four aspects of the number core. Topics A and B ask students to say the number names in standard order when counting, pairing each object with one and only one number name (**PK.CC.3a**). Topic C's *how many* questions require students to incorporate cardinality, understanding that the last number name said tells the number of objects counted (**PK.CC.3b**). Children begin to generalize this knowledge as they use one-to-one correspondence to count a set of 3 objects in scattered and linear configurations (**PK.CC.4**).

In Topic D, children begin to match quantities of 1 to 3 objects to a numeral (**PK.CC.2**). They work with prewritten numerals as they build the fine motor skills necessary to start writing numerals in later modules. Children also practice counting out a specified number of objects (up to 3) by matching them to an existing set. Initially, they do this by counting a group of craft sticks to match a group of dots. This practice prepares them to count out a group of objects by hearing or seeing the numeral (**PK.CC.4**). The Mid-Module Assessment is given after Topic D, during which each child is interviewed and observed to determine how well she understands sorting, making groups, and counting to 3.

Topics E and F mimic Topics C and D, extending children's understanding of the number core to quantities of 4 and 5. They practice strategies for counting array, circular, and scattered configurations, tracking their counting paths to ensure one-to-one correspondence (**PK.CC.4**).



They also learn to count the Math Way, starting with the left pinky finger and moving toward the thumb, using a piano template (shown on right). Playing the piano in this way prepares them to count 6, 7, 8, 9, 10, beginning with the right thumb and continuing to the right pinky. Also, in counting the Math Way on the piano, students see the number of fingers increase as they count from 1 to 5, moving from left pinky to thumb without interruption. This provides a foundation for understanding the number path and number line, on which numbers also increase from left to right. Internalization of the number line develops multiple areas of number sense and facilitates future work with operations.



Throughout Topics E and F, children have opportunities to find smaller numbers embedded within larger numbers (e.g., 1 and 3 are inside 4). This precursor to composition and decomposition of numbers prepares students to work with addition and subtraction later in the year.

In Topic G, students use their skill with rote counting and their subsequent knowledge of number names to find the pattern of *1 more* as they build number stairs for quantities 1–5, recognizing that each successive number name refers to a quantity that is one larger (**PK.CC.4d**). They learn to look at the numbers 1–4 and to answer "What is 1 more?" and "What comes after?" (**PK.CC.1–4**, **PK.OA.2**). This also enables students to connect counting sequences to quantities and to understand the *1 more* pattern using concrete objects.

In Topic H, children break down a tower of 5, removing one cube at a time while counting backwards (**PK.OA.2**). Topics G and H help students build an understanding of the relationships between numbers and the pattern embedded in the counting sequence. These important insights will serve as the basis for counting on in Grade 1.