### **Illustrative Mathematics**

# 1.NBT Counting Circles II

#### Alignment 1: 1.NBT.A

## Setup

Have students stand and form a circle facing in toward each other. Select a counting sequence to be practiced with no more than 6-10 numbers in the sequence, for example 97-104.

### Actions

Have the students start counting around the circle one by one until the last number in the sequence is reached. When the last number is reached all students clap and that student is out and sits down on the floor in the middle of the circle. Start the counting sequence over again until another student reaches the number at the end of the sequence, everyone claps and that student sits in the center with the first student. Continue repeating the sequence until only one child is left standing and the rest are seated in the center of the circle. For example: for the counting sequence 97-104; the first child says "ninety-seven", the next child says "ninety-eight" and so on until the 8th student gets to "one hundred four" at this point everyone claps and the eighth child sits in the center of the circle, the ninth child starts over with "ninety-seven" and so on.

With a larger class this activity can be modified by splitting into two groups and practicing different counting sequences or by stopping after 5-10 students are sitting down. It can also be modified to allow students who have sat down to come back in when another student misses a number in the sequence if they can state the correct number, in which case, the teacher can just stop the activity after about 10 minutes.

#### Commentary:

- . This activity is designed to target trouble spots that children have with counting so it is important to keep the sequence short and focused. If the majority of the class is struggling with the getting past 30 into the next family, or the "teen" numbers, or crossing the century from 99 to 100 this activity can be used to target a specific area and then move on to the next trouble spot. This activity is also effective for skip counting sequences.
- It is important to keep the counting moving quickly and smoothly thus keeping the sequence to no more than ten numbers is key, as well as, offering support to the students either with the teacher giving the number name to a student if they are struggling or by having a written record that students can refer to. The idea is not for the student to figure out the counting sequence but to hear it and practice it repeatedly in a facile manner. Supporting students in this way keeps the activity moving quickly, allows students to "hear" the sequence repeatedly and keeps it from taking too long.
- If you are practicing in the "teen" range or with counting by ten, English Language Learners often have trouble with the articulation of these numbers saying 50 for fifteen, 60 for sixteen, 70 for seventeen or visa versa so practice within this specific range is useful to emphasize the proper articulation of these number names.
- Practicing counting sequences going backward is a particularly important skill to develop that later supports student development with subtraction and can often pose difficulty for children. It is critical to play this and other such games using backward number sequences after students have developed facility going forward.

#### Solution: Solution

- Possible counting sequences for forward counting: crossing the decade from any one family into another, for example 26-34, 37-43 etc. or crossing the century and beyond, for example 97-104, 108-112, 115-124
- Possible counting sequences for backward counting: the teens 20-11 or any crossing the decade sequences going backward.
- Possible counting sequences for multiplicative or "skip" counting: by tens (10, 20, 30, 40, 50, 60, 70, 80, 90, 100) by 5s and by



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