**Lesson 1: Making Groups of 10**

**Overview:** In this lesson, students will learn to visualize numbers to 100. They will focus on making and counting whole groups of 10. Students will be introduced to the idea of using groups of 10 as a benchmark for estimating and a way to count a set of objects efficiently.

**Outcome: Students will**

* Represent and describe numbers to 100, concretely, pictorially and symbolically.
* Illustrate, concretely and pictorially, the meaning of place value for numerals to 100
* Demonstrate if a number (up to 100) is odd or even.

**Materials**

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| * Math journals | * Sonnia’s Sticker Collection |
| * Unifix Cubes | * “10s and 1s Chart” |
| * Counting baggies (filled with objects < 100) | * *Show Your Number* activity sheet |
| * Ten frames (10 boxes of 10 on one page) | * *74 Stars* * *Montessori Golden Bead Materials* |

**Timeline:** 2 – 3 periods

**Getting Started**

1. Have students look at the overhead of “Sonnia’s Sticker Collection.” Ask:
   1. What do you see?
   2. How many sheets are filled?  *Count each box as the children count.*
   3. How many stickers fit onto each sheet? *10.* How do you know?
   4. How many sheets are empty?
2. Sonnia needs to finish putting all the stickers onto the sticker sheets. Let’s help her. *Use an erasable marker to cross out each sticker as it is put onto the sticker sheet.*
3. Continue doing this until the tens frame is filled.
4. Ask, “How many stickers are there altogether in Sonnia’s sticker collection?
5. Point to the sticker sheets as children count by 10s (*10, 20, 30, 40, 50*) and then to the single stickers as they continue counting (*51, 52, 53, 54, 55, 56*).
6. Record 56 and fifty-six on the board.

**Instructional Process – Part 1**

1. Pass out the Unifix Cubes to each student. Have them show the number 56, putting as many together as possible to look like a sheet of 10.
2. Next, have the children place their cubes on the “10s and 1s Chart.”
3. Invite children to explain how they figured out where to put the cubes. *(Tens go on the 10s side and ones go on the 1s side.* Ask:
   1. How many groups of 10 are in the 10s column? (*5*). How many are in each group? (*10*). How can you count by 10s to show the number of cubes? (*10, 20, 30, 40, 50*).
   2. How many cubes are in the 1s column? (*6*)
   3. How many blocks are there altogether? (*56*)
4. Record 56 in a 2-part chart (show 10s and 1s) and ask:
   1. This is the digit 5. What does the five mean? (*50*)
   2. This is the digit 6. What does the six mean? (*6*)
5. Relate the 2-part mat to the number 56 on the board. Explain that the 5 and 6 are digits in 56. Talk about how the digit 5 means five 10s and the digit six means 6 1s.
6. Repeat this process as a large group showing how to use the Montessori Golden Bead Material to make sure students see the variety of tools they may use to accomplish representing the number given
7. Record 68 on the board. Say, “On another day, Sonnia had 68 stickers. She needs to put them into as many groups of 10 as she can. Have them show how to make 68, using 10 frames, hundred charts, Unifix Cubes, etc.
8. As children work, ask:
   1. How many tens are there?
   2. How did you show the tens?
   3. How did you show the ones?
   4. Can you show 68 in another way?
9. Tell the children that when counting things it is easier to put things into groups of 10 to organize what we are counting and to help keep track better.

**Independent Practice**

1. Pass out a copy of *Tens Frame.*
2. Pass each student a baggie of counters.
3. Have them estimate how many objects they think they have.
4. Next, have the students use their counting mats to count how many objects they have.
5. Then, have them record their number on the “*Show Your Number*” activity sheet.
6. Discuss the sheets as a class asking questions to further develop thinking.

**More Practice**

1. Complete *74 Stars.*
2. Complete *10 – Frame Numbers*.
3. Use the collaborative Number Recipe sheet for our Multi Age Lesson with Grade 1