

Math Lesson Plan – Wednesday November 23rd
Math Makes Sense: Lesson 7 – Estimating and Counting to 100

Time: 25-30 minutes

Curricular Outcomes:

GCO: Number (N): *Develop number sense - N6: Estimate quantities to 100 using referents.*

Materials:

- 60s small items, such as buttons or beads
- Document Camera and Smart Board
- Piece of white paper and marker
- Class Copies of Worksheet
- Multiple copies of “Estimation flashcards”
- White board crayon and wiper for each student

Instruction:

1. Place bag of items spaced out under the document camera.
2. Ask students: “Do you think 60 or 90 is a better estimate for the number of beads?” (ask multiple students for answers) “Why do you think this is?”
3. Count 10 beads and move them into a group. Ask, “Now do you think 60 or 90 is a better estimate?” Record some estimates on a sheet of paper or the smart board.
4. Ok now lets learn about a new strategy that we can use to help us count our items once we have made an estimate. “We can use tally marks or tallies to help us count.” Demo how to use these by marking one tally mark at a time to each bead being counted. After 4 marks, mark a 5th horizontally across. Explain why we do this and what it means. Continue creating tally marks until all beads have been counted.
5. Ask a few prompting questions;
 - “How can we use the tally marks to count by 5’s?”
 - “How can we use the tally marks to count by 10’s?”
 - “Does it matter if we count by 5’s or 10’s?”
 - “When we group items in this way, what strategy are we using that we talked about yesterday?”
6. Now either engage in the math game (estimation online) or delve into one of the worksheets. Depending on the student’s needs and time constraints, decide whether they need independent practice (perhaps with tally marks and counting) [could be done by distributing a number card to each student and asking them to show the tally marks on a piece of paper]. *Have pictures with items (Estimation Flashcards) prepared (or a worksheet that corresponds with this Math Makes Sense Lesson).
 - Introduce activity: “Today we are going to do some more independent practice with estimation. Since we are now

estimating up to 100, there may be larger groups of items for us to estimate.”

- “We are going to each get a sheet that looks like this (show class handout sheet) a white board crayon and a wiper. **We are going to place this sheet in our math duo tongs.** In the middle of each table there will be a stack of estimation sheets that are in page protectors (this is what they look like). What everyone is going to do is practice his or her estimation and counting using tally marks.
- “Boys and girls, we are going to choose one sheet to estimate. We are not fighting because if you don’t get the sheet you want first, you can get it the next time. Once you have chosen your sheet please write the name of the items that you are going to work on (demo by showing names of each sheet; apples, triangles, bugs, cubes, stars – and show where to write this)
- “Once you choose one sheet you can look at it and draw on it if you need to (whatever will help you to make the best estimate). You are to record your estimate on this* line.”
- “Next, after you have recorded your estimate you should start counting the items using the tally marks (remember one of the reasons why we count: to see how close our estimates are to the actual amount).”
- “When you are counting your items you can cross them off (if that makes it easier to keep track). Using your whiteboard crayon.”
- “After you are finished you should wipe off the sheet and replace it to the middle of the table. If you have time you can choose another estimation sheet and repeat this process. I made enough room on this sheet to redo the activity 3 times. However you should do your best work and do as many as you have time for. If you have time for more than 3 then you can flip to the backside of the sheet and repeat this process on the back.”
- “Very quickly, ‘re-show’ what we are supposed to be doing and ask students if they have any questions.”
- Send students over to the other room and hand out all materials and worksheets.

Name: _____

Estimation and Tally Marks Worksheet

Estimate first, and then count the items using tally marks.

1. Which group of items are you estimating? _____

What is your estimate? _____

Use tally marks to count the items, show your work below.

2. Which group of items are you estimating?

What is your estimate? _____

Use tally marks to count the items, show your work below.

3. Which group of items are you estimating? _____

What is your estimate? _____

Use tally marks to count the items, show your work below.