Large Handfuls

> **Materials:** Connecting Cubes (3 bags of the same color) / Number Cards (1–30) / Number Line (1-10) / Paper and pencil
>
> **Purpose:** Student practices keeping track of an unorganized pile and counting to find out how many.

PART I: Counting by 1s

Break apart 60 Connecting Cubes and place in pile on table. Ask student to take 3 handfuls of Connecting Cubes and place them in a separate pile (about 15 cubes).

Ask student,

> **"How many cubes do you think are there? Make a guess or estimate, before counting."**

Ask student to count the cubes. When student finishes counting, ask,

> **"How many are there?"**

If student struggles, help him/her recount or correct errors.

Find the Number Card that matches and place it beside the pile as a label.

Discuss whether the initial estimate was close to the actual number of Connecting Cubes. Reference Number Line as a visual aid if needed.

Repeat several times, asking students to take out larger handfuls of Connecting Cubes (quantities up to 30).

Notice the following things about your student and compliment him/her as progress is made.
- *Does student realize the importance of keeping track of the cubes while counting (no double-counting or missing any cubes)?*
- *Does student know "how many" after counting?*
- *Does student correct his/her estimate while counting, if his/her estimate was significantly off?*

PART II: Grouping by 2s, 5s and 10s

Tell student,

> **"Sometimes organizing objects into groups helps when you are counting.   Let's try it."**

NOTE: *Some students will not yet trust that the total remains the same despite how the cubes are arranged or grouped. This activity helps address that misconception.*

Ask student to take <u>3 or 4 handfuls</u> of cubes (about 15 – 30 cubes) and put them in a pile. Put aside any remaining cubes and work only with the selected pile throughout the remainder of the activity.

Ask student to count the cubes <u>one at a time</u> and to write the total on a piece of paper.

Ask student to organize the cubes into groups of 2 and count again. If there are an odd number of cubes, explain that the extra cube must be added on at the end.

Some students will know the sequence of counting by 2s easily (2, 4, 6, 8, 10) and others will need to count by ones despite the organized piles of 2. Either way is fine.

Then ask,

"Is that the same amount you counted before?"

Put the cubes back into an unorganized pile.

Ask student to organize the cubes into groups of 5 and count again. If there are leftovers at the end, explain how to count them.

Some students will know the sequence of counting by 5s (5, 10, 15, etc.) and others will need to count by ones despite the organized piles of 5. Either way is fine.

Then ask,

"Is that the same amount you counted before?"

Ask student to organize the cubes into groups of 10 and count again. If there are leftovers at the end, explain how to count them.

Some students will know the sequence of counting by 10s (10, 20, etc.) and others will need to count by ones despite the organized piles of 10. Either way is fine.

Repeat several times with different large piles.

PLEASE RETURN 20 SAME COLOR CONNECTING CUBES TO EACH BAG.