SUCCESS ACADEMY CHARTER SCHOOLS

Counting Jar Toolkit

Overview: During the Counting Jar routine, scholars count a set number of tiles to actively develop critical number sense skills, including one-to-one correspondence, accurate tracking of quantities, and a fundamental understanding of cardinality.

This **Counting Jar Toolkit** is a comprehensive guide for launching and managing the Counting Jar assessment and routine in kindergarten and first-grade classrooms.

Use the chapters below to quickly navigate to the specific resources you need:

- **Goals & Rationale:** Understand the purpose of moving scholars toward "exemplary counting."
- **Materials & Setup:** Obtain a comprehensive list of required materials, including clear jars and recording tools.
- **Assessment Protocol:** Follow the step-by-step process for administering the one-on-one assessment.
- **Scoring Rubric & Case Studies:** Calibrate your scoring with the four-level rubric and real-world examples of scholar work.
- **Lesson Plan:** Get a ready-to-use plan for launching the routine, including modeling, independent work, and class discourse.
- **Using Data to Drive Instruction:** Learn how to interpret assessment results to adjust materials and plan targeted mini-lessons for individual scholar needs.

1. Goals & Rationale

The primary goal of the Counting Jar is to move scholars from simple rote counting to exemplary counting. Exemplary counting is crucial to a scholar's success as a mathematician and involves more than just obtaining the correct answer—it requires grouping, skip-counting, and high accuracy.

2. Materials & Setup

To administer the assessment or run the lesson, ensure you have the following materials ready:

- Chart paper
- Markers
- Clear Jars (One per student)
- Counting Tiles (Uniform color, e.g., all blue, to reduce distraction)
- Felt Mats (Essential for organizing tiles and managing noise levels)

- Laminated 100s chart

3. Assessment Protocol

Step	Action	Teacher Protocol & Observation
Step 1: The Prompt	Present the jar and ask: "How many tiles are there in the jar?"	**Duration:** 5–10 minutes per scholar (administered one-on-one).
Step 2: Observation (First Count)	Listen and Observe. Do not intervene.	**Record (Color A):** Track every error, skip, or self-correction on the provided 100s chart using your first pen color. **Cardinality Check:** If the child finishes counting but does not verify the total, explicitly ask: *"How many?"*
Step 3: The Recount	Ask: "Can you please recount the tiles in the jar?"	N/A
Step 4: Observation (Second Count)	Listen and Observe. Do not intervene.	**Record (Color B):** Track the second attempt using the second pen color to see if errors are consistent or if self-correction occurs.
Step 5: Evaluation	Determine the scholar's level based on their best overall count using the rubric below.	N/A

4. Scoring Rubric

The final level is determined by the scholar's best overall count.

Level	Score	Key Characteristics (Bold = Required)
Exemplary	4	• Counts 43+ objects. • No errors in number names. • Counts by groups (skip-counting) rather than one-by-one. • Always deliberate and careful tracking.

Proficient	3	• Counts 43+ objects. • No errors in number names. • Counts by ones. • Consistently deliberate tracking.
Emerging	2	• Counts 20–42 objects. • Minor sequence errors (e.g., trouble crossing decades like 29→30). • Occasional sloppiness in one-to-one correspondence.
Limited	1	• Counts 20 or fewer objects. • Major sequence errors or unstable order. • Rote count often does not match objects (erratic).

5. Analyzing Scholar Work (Case Studies)

Use these examples to calibrate your scoring.

Case Study A: Zion

- **Observation:** Zion hovers his hand around the pile without touching individual tiles. He counts "1, 2, 3, 4, 5, 8, 10." When asked "how many?", he recounts the same incorrect sequence.
- **Diagnosis: Limited (Level 1)**
- **Reasoning:** Counted fewer than 20 tiles, demonstrated no one-to-one correspondence, and had major sequence errors.

Case Study B: Lela

- **Observation:** Lela counts correctly to 29, but then jumps to "80". She consistently skips the number "15" and demonstrates poor object tracking.
- **Diagnosis: Emerging (Level 2)**
- **Reasoning:** She counted between 20 and 43 tiles but had significant errors in accuracy/sequence ("crossing the decade") and tracking.

Case Study C: Jose

- **Observation:** Jose counts accurately to 47. He is deliberate and careful with his tracking, but counts strictly by ones.
- **Diagnosis: Proficient (Level 3)**
- **Reasoning:** He counted higher than 43 with solid correspondence. He is *not* Exemplary because he counts by ones and does not yet group or skip-count.

6. Lesson Plan: Launching Counting Jar

Objective: Scholars will develop strategies for accurately counting and tracking quantities.

Differentiation Note: Prior to the lesson, prepare jars with a specific number of tiles based on each scholar's assessment level (1-2 tiles more than their last error).

Launch & Model

1. **Hook:** Show a Counting Jar to the class. Ask: *"How could we find out how many tiles are in the jar?"*
2. **Modeling:** Select a scholar to model counting using a felt square.
    - *Teacher Focus:* Emphasize that the goal is to find the total (cardinality), not just recite numbers.
3. **Extension (Ten Sticks):** Introduce Unifix cubes. Explain that after counting, they will build an equivalent set.
    - *Example:* "If you count 17 tiles, you must build a tower of exactly 17 cubes to match."

Independent Work

- Scholars first count the tiles in their specific jars and record the total. Then, they must use Unifix cubes to build an equivalent set to match the counted number.
- **Teacher Circulation:** Observe strategies.
    - *Who touches every tile?*
    - *Who lines them up vs. moving them to the side?*
    - *Who loses track?*

Discourse

Select 3 scholars to share their strategies.

Discussion Questions:

- *"What was different about how [Scholar A] and [Scholar B] counted?"*
- *"Did you see a strategy you want to try next time?"*

7. Using Data to Drive Instruction

Assessment data should directly inform your weekly planning.

- **Adjust Materials:** Regularly update the number of tiles in each scholar's jar. If they master a number (e.g., 25), add 1-2 more (e.g., 27) to push their limit.

- **Targeted Mini-Lessons:**
  - *Observation:* Scholar skips "39 to 50".
  - *Action:* Plan a mini-lesson on "Crossing the Decade."
  - *Observation:* The scholar counts by ones perfectly, but does so slowly.
  - *Action:* Push them to group by 5s or 10s to reach the "Exemplary" level.