



# On Cloud Nine Math Program

## Visualizing & Verbalizing for Math

The On Cloud Nine® (OCN™) program, by Nanci Bell and Kimberly Tuley, develops the ability to image and verbalize the concepts and processes of math. Concept imagery and numeral imagery are integrated with language to support students in transitioning from concrete experiences (manipulatives) to computation while improving mathematical reasoning.

**Students/setting:** Students lacking in foundational math skills, including number sense, computation and word problems. Special education, RTI/MTSS, dyscalculia, high-impact tutoring.

**Staff:** Special education staff, math interventionists, classroom teachers, tutors

**Grade Levels:** PreK-2 (Tier 1), K-5 (Tier 2), K-12 (Tier 3, special education)

**Group size:** Whole classroom (Tier 1), 5-8 (Tier 2), 5 or fewer (Tier 3)

**Lessons:** 15-20 minutes (Tier 1), 30-45 minutes (Tier 2), 60-120 minutes (Tier 3). 80-120 lessons\*.

\*Lesson times are minimums. Some students may require more intensive intervention; daily times and total lessons should be adjusted accordingly (e.g., 90 minutes daily, if needed).

### Instructional Focus:

- Number Sense, Number Line concepts, and Counting
  - Counting and writing numbers
  - Number line perception and navigation - counting forward and backward
  - Relationship between numbers, greater than/less than
  - Understand base 10 and place value
- Computation
  - Instant recognition of basic addition, subtraction, and multiplication facts
  - Concept of fractions and how they relate to whole numbers
  - Computation of fractions (add, subtract, multiply, and divide)
  - Conceptual understanding of commutative and associative properties
  - Rounding and regrouping
  - Mental math for estimating and rounding
  - Addition, subtraction, multiplication, and division with whole numbers, decimals, and fractions
- Word Problems
  - Embedded within each program step addressing all basic operations (add, subtract, multiply divide) for whole numbers, decimals, and fractions
  - Step-by-step process teaching students to visualize, analyze and interpret text before translating into operations and solving
  - Structured – explicit, systematic, cumulative
    - Each step begins with concrete and imaged representations for conceptual understanding before moving to computation
    - Integrate visualization with language comprehension to apply to all basic mathematical concepts and operations
    - Simple to complex, following scope and sequence
    - Teacher-led, Socratic questioning
  - Diagnostic and prescriptive

**Evidence-Based:** Yes [Learn More](#)

### Professional Development

Four levels of professional learning: advance teacher competencies and school capacity

- Level 1 – live, online workshops or a face-to-face group in-service (20 hours)
- Level 2 – online review courses and advanced training modules (annual membership)
- Level 3 – job-embedded professional development (1-2 semesters)
- Level 4 – comprehensive school partnership model (minimum one school year)

### Required Materials

On Cloud Nine Instructor Kit, available through [Gander Publishing](#). One per teacher.

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