

# KICKSTART

## Number Sense

Math Intervention for Grades K–3 Skills

### Quick Look

Outcomes • Research • Method • Support • Components • Checklist



# Joy in Numbers!

**Kickstart: Number Sense** is a small-group math intervention program that helps students understand and work with numbers in a flexible and intuitive way. Physical movement, partner talk, games, and hands-on materials inspire students to experience joy in numbers and operations as they advance from concrete to representational to abstract thinking.



## Measurable Outcomes

When students have good number sense, they can visualize numbers, solve problems mentally, perform basic operations with automaticity, take numbers apart and put them back together in different ways, and relate numbers to real-life problems in the everyday world.



### Short-Term Wins

Students **actively engage** in multimodal activities to develop **deep conceptual understanding** of whole numbers, advance to **grade-level proficiency**, and develop **strong identities as mathematicians**.

*I had some first graders who came in where they didn't even know how to identify the number four, and now. . . they have better number sense than my fifth graders who are in intervention groups.*

— Trelawni Starkey, Math Intervention Instructor, McMinnville, OR



### Long-Term Gains

A solid foundation in number sense prepares students for speed and accuracy in symbolic mathematics, strengthening classroom **community** and nurturing students' **curiosity** and **confidence**.

*Deepened, early understanding of mathematical relationships predicts school success more than other measures of cognition, such as verbal, spatial, or memory skills or reading ability.*

— Jordan et al., 2007

## Research-Based and Proven-Effective

**Kickstart** is built on evidence-based strategies to make early mathematics intervention effective. Third-party research verifies **Kickstart's** clear and accessible instructional logic model and demonstrates **Kickstart's** efficacy for increased grade-level proficiency across multiple years. Read the research to learn more.

ESSA-Level

CERTIFIED

Read the Research



## Method

Structured, sequential lessons are developmentally aligned to progress from concrete to representational to abstract thinking about whole numbers. Interleaving and spaced practice boost retention and mastery of number sense skills in 60 days. Multimodal activities engage all students and build neural pathways.

### At-a-Glance

- Physical movement, hands-on manipulatives, discussion, music, and games
- Flexible placement options
- Scripted lessons for any adult to lead
- Progress monitoring tools
- Prerequisite skills for K–3 Common Core State Standards in math
- Available in English and Spanish



## Kickstart: Number Sense By-the-Numbers

**60 days** to advance to grade-level proficiency

**20-minute lessons** for push-in or pull-out groups

**6 students** per small group

**4 categories of numerical skills:** basic magnitude comparison, mathematical relations, counting, basic arithmetic

**4 stages A–D** address prerequisite skills for grades K–3 respectively

**3–5 activities** per lesson for engagement and flexibility

## Lesson 19

### Addition Regrouping

Activity 1

**Takeoff: Stretch Numbers**

**5**  
Keep this under five minutes!

T: Everyone stand behind your chair. I will call out a number, and you try to make that number with your body while standing. Four!  
Give them a few moments to think about this and do their best. Also give them a moment to look around and copy others' ideas. That's okay too! After each number, give students time. Try calling out numbers in this order: eight, one, nine, seven, and two.

While this may look like a math activity, the actual goal is to give students a chance to stretch and breathe and move from a reactive-brain state into a thinking-brain state so they are ready to learn.

Activity Card 36

I will use expanded form to add 2-digit and 3-digit numbers with regrouping.

Activity 2

### Addition Regrouping

#### Adding 3-Digit Numbers Using Expanded Form on the Place Value Chart

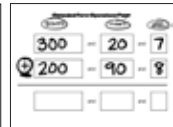
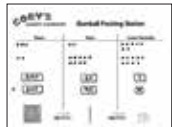
Prepare the teacher SmarPAL with the Gumball Packing Station and the student SmarPAL with the Expanded Form Operations Page.

T: On my page I'll draw the gumball production for the day. Today you'll use your Expanded Form Operations Page to write the numbers I'm showing. You can also label it with boxes, tubes, and loose gumballs if you like! For example, I'll show 327 on my Gumball Packing Station. Draw 3 dots in the boxes column, 2 dots in the tubes column, and 7 dots in the loose gumballs column.

T: On your SmarPAL, write three numbers: 300 in the boxes column, then 20 in the tubes column, then 7 in the loose gumballs column. Underneath those, write this next set of numbers.

Draw 298 with dots on your page. Watch students write 200, then 90, then 8 in their respective columns. On your teacher page, model with the dots and the expanded form numbers.

**Materials**  
For the teacher:  
• SmarPAL and dry erase pen  
• Gumball Packing Station (R21)  
Per student:  
• SmarPAL and dry erase pen  
• Expanded Form Operations Page (R11)



Activity 2 continued next page

74 Kickstart: Number Sense Stage D

## Built-In Support

With the ready-to-use **Kickstart: Number Sense** Full Intervention Kit, any adult can facilitate a small group with minimal prep time.

- Scripted daily lessons list materials needed and how to use them.
- Professional learning is embedded alongside lessons in Teacher Guides.
- Placement and progress monitoring tools help teachers quickly gauge and respond to students' skill development.
- Companion **MyZBPortal.com** resources boast a teacher-friendly organization with convenient access to lessons, reproducible resources, and song recordings.

# Program Components

The *Kickstart: Number Sense* Full Intervention Kit includes everything needed for grades K–3 number sense skills intervention in small groups of up to six students: all Teacher Packs, a Student Materials Pack, and renewable [MyZBPortal.com](http://MyZBPortal.com) Individual Licenses. It's available in English and Spanish.

## Teacher Packs

Teacher materials include print Teacher Guides, Song Book, Ten Park cards, Activity Cards, and Reproducible Resources needed for Stages A–D, or prerequisite skills for K–3 respectively.



## Student Materials Pack

The Student Materials Pack includes all manipulatives for up to six students. A giant number line, rekenreks, DecaDeck cards, and a plush Cota the Kangaroo quickly become students' favorite math tools!



## MyZBPortal.com Individual Licenses (1-Year)

[MyZBPortal.com](http://MyZBPortal.com) provides convenient digital access to teacher materials including daily lessons, reproducible resources, Activity Cards, song recordings, progress monitoring forms, and classroom demonstration videos.



AVAILABLE SEPARATELY

### *Kickstart: Early Number and Counting*

supports students struggling with PreK skills in kindergarten intervention lessons.



## Consideration Checklist

Do your students need the targeted math intervention provided by *Kickstart: Number Sense*? Use this handy checklist to consider how you nurture their number sense development.

- Are students confident talking about math?
- Do math lessons actively engage students and get them excited about numbers?
- Are you able to measure student growth and mastery of number sense skills in grades K–3?
- Are students able to practice math skills across various contexts?
- Are students developing automaticity in math?