

KICKSTART

Fractions

Math Intervention for Grades 3–5 Skills

Quick Look

Outcomes • Research • Method • Support • Components • Checklist



Confidence in Part–Whole Reasoning

Kickstart: Fractions is a systematic, engaging small-group intervention product that provides students with strategies and supports to build conceptual understanding and procedural fluency with fractions. Instruction follows a developmental progression—from concrete to representational to abstract—helping students in grades 3+ see fractions as proportional relationships connected to what they already know about numbers and number relationships.

Measurable Outcomes

When students have strong fraction understanding, they have and can apply knowledge of whole–part relationships. Students recognize ways fractions are represented; view fractions as a single value; and can compare, add, subtract, multiply, and divide them.



Short-Term Wins

Kickstart: Fractions engages students physically, mentally, and emotionally to **build conceptual understanding** of proportional relationships, **advance proficiency**, and **develop positive math identities**.

Research has consistently demonstrated a connection between students' self-perceptions about their math ability and their later math performance.

— Bohrnstedt et al., 2021;
Fernandez et al., 2022;
Petersen & Hyde, 2015



Long-Term Gains

A solid foundation in proportional reasoning prepares students for success in advanced mathematics and fosters **community, curiosity**, and **confidence** in the classroom.

Research-Based and Proven-Effective

Based on the proven-effective *Kickstart* approach to intervention, *Kickstart: Fractions* is built on evidence-based strategies to boost engagement and learning. Research documents a clear and accessible instructional logic model with expected outcomes. Read the research to learn more.



Read the Research



Method

Structured, sequential lessons follow a concrete–representational–abstract progression and are designed to cover grade-level skills in 60 days.

Intentionally spaced practice boosts retention and mastery of part–whole reasoning skills. Embedded motivational supports and multimodal activities engage all students and build neural pathways.

At-a-Glance

- Hands-on materials, partner talk, cooperative games, and real-life contexts
- Flexible placement options
- Scripted lessons for any adult to lead
- Integrated assessments and progress monitoring tools
- Prerequisite skills for grades 3–5 Common Core State Standards in math
- Available in English or Spanish



Kickstart: Fractions By-the-Numbers

60 days to cover grade-level skills, enabling gains of 2+ grade levels per year

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

6 students per small group

3–5 activities per lesson include a warm-up and an exit ticket

3 stages D–F address prerequisite skills for grades 3–5 respectively

STAGE D

Lesson 1: Finding Half Using Tools

MATERIALS

Copy in advance:

- Team Coin Tracker (R61, use for Lessons 1–5)
- Daily Progress Monitoring (R66, 1 per student for teacher use)
- Lesson 1 Landing (R1, 1 per student)
- Caregiver Connection (R59, 1 per student)

For the teacher:

- Activity Cards 1 and 2
- Stage D fraction bar bag

Per student:

- Stage D fraction bar bag
- Pencil

IMPORTANT!

FRACTION BARS
Stage D content only uses denominators of 2, 3, 4, 6, and 8. To prepare for the next few weeks of instruction, remove the fifths (green), tenths (purple), and twelfths (pink) from each fraction set and save them in a safe location for later stages. Prepare a set of eight red, six orange, four yellow, three black, two brown, and one blue bar in each zipper bag, one bag per student.

TAKEOFF

Pass out Stage D fraction bar bag to each student. Open a Stage D fraction bar bag for yourself and lay out all the bars with the blank side up. *Make sure each student's fraction bars are turned to the blank side.*

T: Take a moment to look at this side of your bars.

Give students time to explore the different sizes of the bars. There is no need for the students to notice anything specific at this time. This experimental time allows them to make sense of the relationships between the number of bars and the whole, the colors and their sizes, and the relationship between all of them. *Ensure students are only working with the blank side of the bars.*

T: What do you notice?

Call on a few students to share their ideas. As students share, award Cory Coins on the Team Coin Tracker for anyone who participates (see Program Note on page 4 for more information). Let students know you are awarding the team (the group) Cory Coins for participation.

T: Today I'll assign you a partner who will be your partner for a few days.

PROGRAM NOTE

Students will need a partner most days. In this program partners are referred to as Lemons and Limes. It is most beneficial when students have the same partner each day for at least a few weeks before changing partners. If there is an odd number of students, read ahead and decide if the activity can accommodate three or if you become the partner of the last student. If there are three students in a group, you have Lemons, Limes, and Grapefruit, or a fruit of your choice.

Take a moment to assign Lemon and Lime partners.

T: Limes, line up all your red bars. Lemons, line up all your yellow bars. Grapefruit, line up all your orange bars. Limes, you first, tell your partners what you notice. Lemons, you're next, what is different about your bars compared to your partners' bars? For a few months we'll be together exploring what we notice about these bars. How many red bars fit in a blue bar?

Let students try this out. The answer is eight.

T: Try these. How many yellow bars fit in a brown bar? Pause. The answer is two. How many orange bars fit in a black bar? Pause. The answer is two. How many red bars fit in a brown bar? Pause. The answer is four. Get ready to ask your partner one of these "fit" questions, but you need to know the answer first. Try one that we haven't done together. When you're ready, ask your partner, "How many (color) ___ bars fit in a (color) ___ bar?"

Built-In Support

With the ready-to-use **Kickstart: Fractions** 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, activity cards, reproducible resources, and instructional videos.

Program Components

The **Kickstart: Fractions** Full Intervention Kit includes everything needed for grades 3–5 fraction skills intervention in small groups of up to six students. It's available in English or Spanish.

Teacher Packs

Teacher materials include print Teacher Guides, Reproducible Resources, and Activity Cards.

Student Materials Pack

The Student Materials Pack contains all manipulatives for up to six students, including fraction bars, fraction tiles, and pattern blocks.

MyZBPortal.com Individual Licenses (1-Year)

MyZBPortal.com provides convenient digital access to teacher materials including daily lessons, reproducible resources, activity cards, and instructional videos.



Consideration Checklist

Do your students need the targeted math intervention provided by **Kickstart: Fractions**? Use this handy checklist to consider how you nurture their understanding of part-whole relationships and proportional reasoning.

- ☐ Do students have opportunities to leverage a systematic, developmental progression and apply concepts to everyday examples?
- ☐ Are intervention activities explicit, meaningful to students, and effective in helping bridge new and known information?
- ☐ Do students understand the “why” behind fraction procedures?
- ☐ Does instruction foster collaboration and positive perceptions about math learning?