



K-2 Early Numeracy Screener

Spring 2025

Universal Screeners for Number Sense

Let's Start with a Math Interview

As you watch, think about what is being communicated between the teacher and the student.

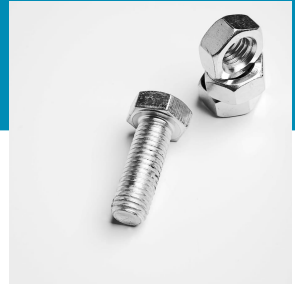
Let's watch...

Overview

- Three assessments per year
 - Fall screeners are entirely interview-based
 - Midyear and Spring screeners have interview and written portions
- Each assessment includes:
 - English and Spanish versions
 - Note catcher, “Quick Script,” and detailed rubric
 - The assessment guide is available on the USNS Project page



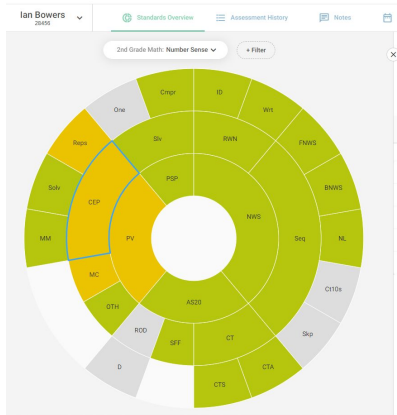
Nuts and Bolts



- Interviews are done individually with students (3 - 6 min. each)
- Written sections can be administered in small group or whole class
- Materials needed:
 - Photo copies of assessment and note catchers if desired
 - Cards - copied and cut
 - Simple counters and covers
- Set up time: approximately 10 minutes



Looking at Data, Family Letters & Instructional Suggestions



Dear Family,

We recently completed our Fall Number Sense interviews. These interviews are an opportunity for us to sit with each child as they count, read numbers, and solve addition and subtraction problems. During each interview, we listen carefully to learn more about how the child makes sense of mathematics. This helps us consider how we can best support all children's learning.

The skills and concepts below are key elements of what we call "number sense." Number sense refers to a person's understanding of and intuition regarding the meaning of—and relationships among—numbers. Number sense is critical for students' long-term success in mathematics. People with a strong number sense can make reasonable estimates, solve problems in different ways, and use relationships among numbers to work with both creativity and precision. We look forward to working together with you this year to support your child's growth in mathematics.

During the assessment your student demonstrated the ability to:

- Count from 1 to 22 by ones
- Count starting from any number under 100 ("Count up starting at 38")
- Count by 10s to 100.
- Read numbers to 20 with confidence.
- Count a set of up to 15 objects.

Your student could benefit from additional support with:

- Subtracting one or two from a set of things under 10 without counting all the objects.
- Identifying pairs of numbers that add to make 5 or fewer. Example: "We have 2. We need 5. How many more do we need?"
- Adding a 10 with some ones without counting.

Activities to practice these skills at home include:

- Set out a few objects, for example, 6 pennies. Then cover them all with your hand and remove 2. Invite your child to determine how many pennies remain under your hand. Then reveal the pennies to confirm. Take turns setting out the pennies and removing some. When it's your turn to determine how many remain under your child's hand, explain your thinking: "There were 5. I see the 2 you took out. If you took one, that would be 4, so it must be 3."
- Take turns setting out fewer than 5 objects. Then the other person states how many more objects would make 5 in all. If needed, set out more objects to make a total of 5, count to confirm that the total is 5, and verbalize, for example: "Three yellows plus two blues makes five in all."

Fall Universal Screener for Number Sense: Grade 2

Next Steps for Instruction, Question #1

5

Activity	Time	Instructional Mode (whole group, small group, 1:1, or independent)	Notes (e.g., materials needed, free apps, other resources)
<p>That Number Square!</p> <p>Students determine an efficient strategy to organize number tiles from 0-99 or 1-100 and place them onto an empty number grid.</p>	5-10 minutes	Small group or 1:1	Printable grid and number tiles
<p>Counting Collections</p> <p>Counting collections are collections of small objects that students can organize and count. When students begin counting these collections, they might count one-by-one. As their number sense develops, they might group the objects into groups of 2, 5, 10, or other friendly numbers to skip-count.</p> <p>Collections with 50-120 objects are recommended to support students' work with two-digit numbers and crossing the century.</p>	10-20 minutes	Whole or small group	Prepackaged sets of various objects to count
<p>Counting One by One</p> <p>Display a 1-120 chart. Invite a student leader to choose a number to begin with and then have the group count aloud while the student leader points on the chart to the numbers</p>	5 minutes	Whole or small group	1-120 chart 5



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Forefront® Lite Plan
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Data Trackers
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Next Steps

Forefront® Basic Plan
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Lite *plus*
Build Local Data Trackers
Family Letters
Roster Syncing

*Plans include software training. Two add-on PD modules – **USNS Essentials** and **USNS Results** – help educators with administering assessments and interpreting results.*

The USNS provide
helpful, actionable information
for teachers and families.

In Their Words

“The past two years, we have used the number sense screeners and the Forefront platform to gather the data and generate informative reports. This year, I have utilized the reports to set grade level goals and created progress monitoring tasks to measure growth in specific areas. I have also started 3 coaching cycles based on the data from the fall screeners. It has had profound impact on our teaching and student learning.”

- *Fadra Rogers, K-2 Math Coach, Alexander City Schools*



Fractional Reasoning Screener

Spring 2025

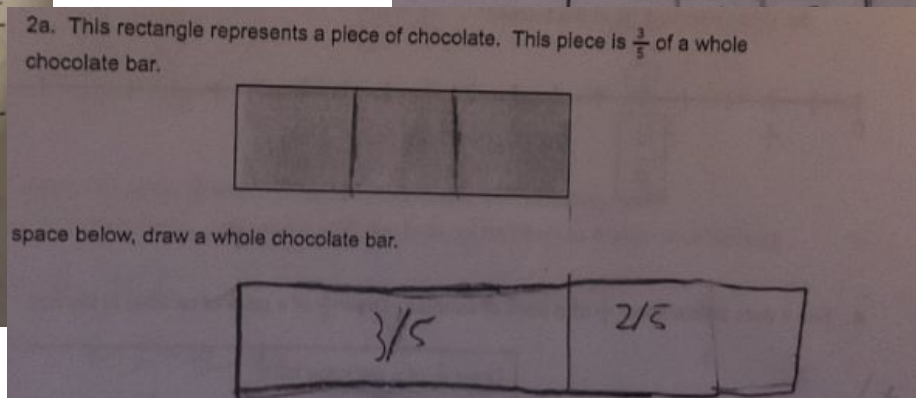
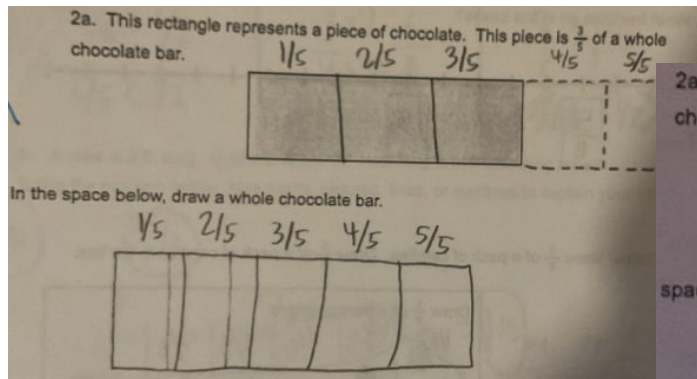
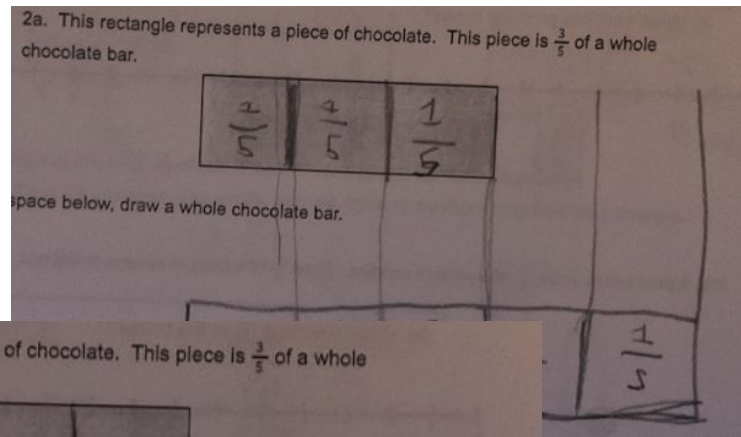
*To Better Support Fourth and Fifth Graders'
Understanding of Fractions*

Let's Start with Sample Tasks

2a. This rectangle represents a piece of chocolate. This piece is $\frac{3}{5}$ of the whole chocolate bar.



In the space below, draw the whole chocolate bar.

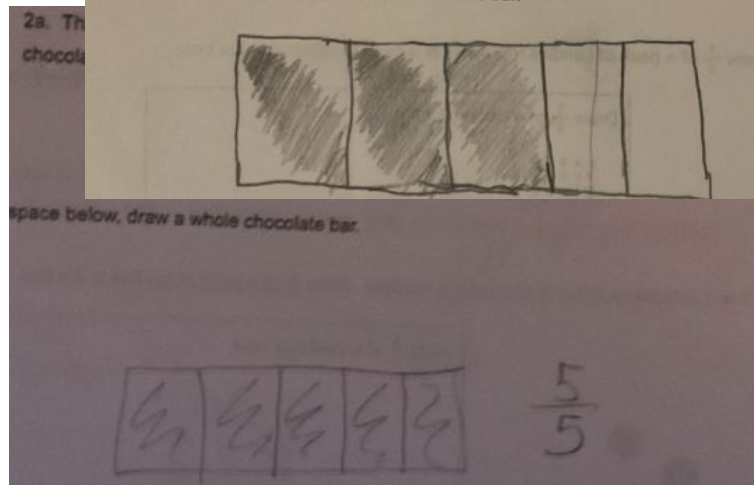
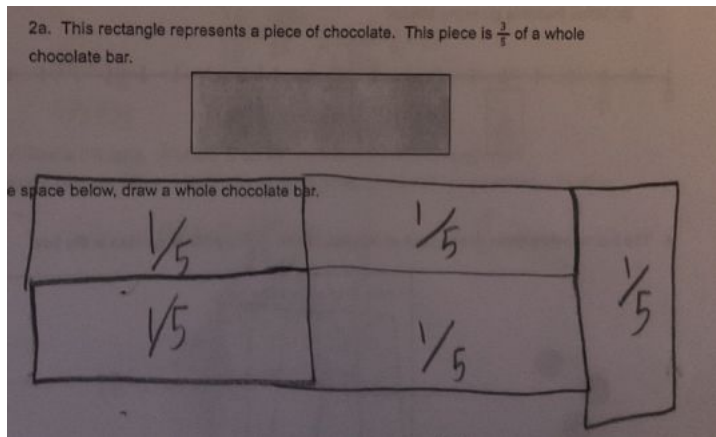
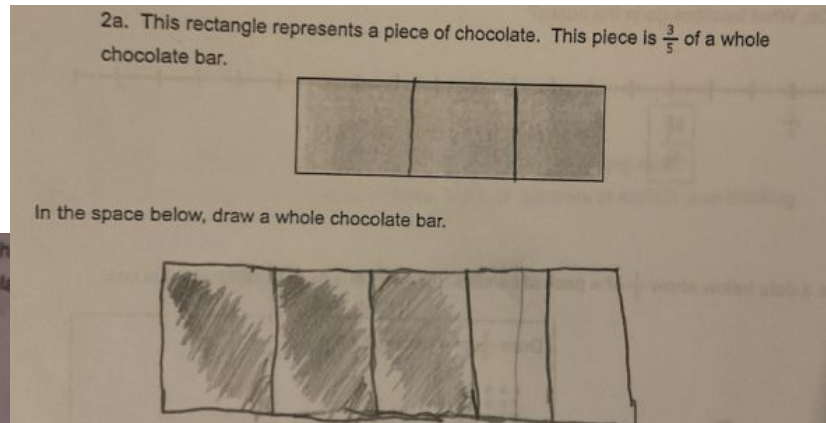


Let's Start with Tasks

2a. This rectangle represents a piece of chocolate. This piece is $\frac{3}{5}$ of the whole chocolate bar.



In the space below, draw the whole chocolate bar.

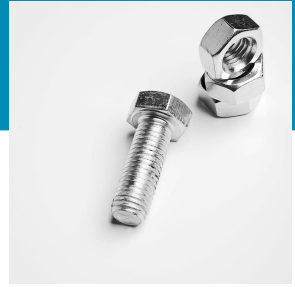


Overview

- Two assessments per year
 - Fourth grade: Early assessment (Pre) & Intermediate assessment (Post)
 - Fifth grade: Intermediate assessment (Pre) & Advancing assessment (Post)
- Each assessment includes:
 - Detailed rubric and sample student responses
 - English versions currently available; Spanish versions will be available for the 2025-26 school year



Nuts and Bolts



- Pencil and paper administration
- Not timed, but provide students with 45 minutes to complete the Early and Intermediate assessments. Provide fifth graders with 60 minutes for the Advancing assessment
- Anticipate 1-2 hours per class for scoring and entering scores into Forefront
- Materials needed:
 - Photo copies of assessment



Make it Easy to Collect Data

⚡🕒tamara@forefront.educati

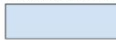
SpreadsheetInterviewReports

4/5 Fractional Reasoning Screener

Student	1	2a	2b	2c	3a	3b	4a	4b	5a	5b	6	op
Rolando Bailey	2	1	3	1	2	2	1	1	1	3	2	17
Catherine Bell	3	0	3	1	2	2	1	1	1	3	2	19
Anne Colon	1	1	0	1	0	2	0	1	0	3	2	11
Joanne Cortez	3	1	3	0	2	2	1	1	0	3	2	18
Robin Gordon	1	1	3	1	1	2	1	1	1	3	2	17
Lindsay Hoffman	3	1	3	1	2	0	1	1	0	3	2	17
Stacy Ingram	1	1	3	1	2	2	1	1	0	3	2	17
Jill Jensen	3	1	3	1	2	2	1	0	0	3	2	18
Rickey Johnston	1	1	3	1	0	2	1	1	0	0	2	12
Estelle Logan	1	1	3	1	2	2	0	1	1	3	0	15
Laurie Murray	3	1	3	1	1	2	0	1	0	3	2	17
Marlene Roy	1	1	3	1	2	2	0	1	0	3	2	16
Jacob Tyler	3	1	3	1	2	2	1	1	0	3	2	19
Brooke Weaver	3	1	3	0	2	2	0	1	1	3	2	18
Jose Wong	3	1	3	1	0	2	0	1	1	3	2	17

Rolando Bailey

2a 2/5 of a rectangle

2a. This rectangle represents a piece of chocolate. This piece is $\frac{2}{5}$ of the whole chocolate bar.

In the space below, draw the whole chocolate bar.

Standards

Proficiency Meeting

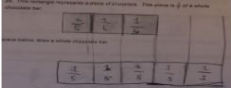
ProficiencyScore Range

Not Yet0

Meeting1

Rubric

Notes 1

IMAGES


Make it Easy to Analyze Data

Overview Fractional Reasoning Assessments

tamara@forefront.education

Math Grade 4: Fractional Reasoning


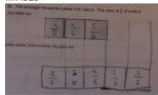
Student

Rolando Bailey Meeting

Shapes (4.Shapes)
Shapes: Students are able to connect symbolic representations of fractions to reasoning with 2 and 3-dimensional shapes: rectangles, circles, rectangular prisms, etc. This includes tasks like, "Here is a rectangle. Show $\frac{1}{4}$ of this rectangle?"

Date Given	Proficiency	Weight
Nov 22, 24	Meeting	100%

4/5 Fractional Reasoning Screener

#	Question	Notes	Score
2a	2/5 of a rectangle		1/1
2a. This rectangle represents a piece of chocolate. This piece is $\frac{1}{5}$ of the whole chocolate bar.			
			
In the space below, draw the whole chocolate bar.			
			
2b	Fractions of Squares		3/3
2c	5/3 sticks of butter		1/1

*Only showing questions that contribute to, and have data for:

Shapes

Magnitude, Comparison & Equivalence
4.MCE

Computation
4.C

Approaching	Meeting
Meeting	Meeting
Approaching	Meeting
Approaching	Meeting
Meeting	Meeting
Approaching	Meeting
Approaching	Meeting
Approaching	Meeting
Approaching	Meeting
Not Yet	Meeting
Meeting	Not Yet
Approaching	Meeting
Approaching	Meeting
Approaching	Meeting
Meeting	Meeting
Meeting	Meeting

Rolando Bailey

Catherine Bell

Anne Colon

Joanne Cortez

Robin Gordon

Lindsay Hoffman

Stacy Ingram

Jill Jensen

Rickey Johnston

Estelle Logan

Laurie Murray

Marlene Roy

Jacob Tyler

Brooke Weaver

Jose Wong

Meeting

Meeting

Approaching

Approaching

Meeting

Meeting

Identify Next Steps

FRS Grades 4/5 Next Steps Question 1 - Reading and Writing Fractions and Mixed Numbers

1. Students will write the following fractions $1\frac{1}{2}$, $\frac{4}{7}$, $\frac{6}{8}$

Assess for Assets: Before targeted instruction begins, find the starting points. Many students have not been directly assessed for their ability to read numerals, ever. Reduce the size of the numbers to find where students can reliably, accurately read numbers. Once starting points have been established, provide instruction that targets the numbers that need attention.

Activity		Notes
Speaking and Hearing	Small group, 1:1	<p>Help students accurately pronounce and recognize numbers, particularly fractions and decimals (e.g., "eight" vs. "eighths" or "hundreds" vs. "hundredths").</p> <p>Instructions:</p> <ol style="list-style-type: none"> 1. Present the Numbers: Show a fraction/decimal (e.g., 5/10, 67/100) and say it slowly and clearly (e.g., "Five-tenths," "Sixty-seven hundredths"). 2. Student Response: Have students repeat the number aloud, then provide corrective feedback if needed. 3. Repetition: Repeat this process to help students hear and say the differences clearly. Focus on tricky areas like "eighths" vs. "eight" or "hundreds" vs. "hundredths." 4. Model Pronunciation: Speak slowly and clearly, emphasizing tongue position to help students articulate the sounds properly.
Use Direct Instruction Method	Whole group, small group, 1:1	<p>For certain concepts, it's best to teach in a clear, step-by-step manner, modeling the process and having students repeat after you.</p> <p>Example for Reading Numbers: Show a number, like $4\frac{1}{3}$.</p> <ul style="list-style-type: none"> • Explain: "This number has a whole part and a fraction. We call this a mixed number. You read it as 'whole number and fraction,' so in this case, it's 'four and one-third.'" • Repeat the process with other numbers (e.g., $7/3$, $2/8$) and guide students to break them down the same way. • Modeling, explaining, and repetition will help students master reading numbers.
Fraction Bingo	Whole group, small group	In this bingo game, the teacher calls out fractions, and students listen carefully to write the fractions on their cards, aiming to complete a row or the entire card.
Fraction Flash and Relay Games	Whole group, small group	In these two games, students practice listening, writing, and accurately recognizing fractions by either dictation or racing to write them on the board in a team relay format. Materials: Fraction Cards



Improve Family Engagement



Fractional Reasoning Assessment End of Grade 4

Report for Matt Barrett

Understanding fractions is both important and challenging. The ability to reason with fractions has been shown to be predictive of middle school and high school math performance. For these reasons, we recently completed a Fractional Reasoning Assessment with all 4th grade students. Below are the results of this assessment for your child.

Reading and Writing Fractions Example: "Write the number three and two thirds."	Meeting
Fractions of Geometric Shapes Example: "The rectangle shown is one whole. Draw another rectangle that is $\frac{2}{3}$ the size of the whole rectangle." 	Approaching
Fractions on Number Lines Example: "Place the number $\frac{2}{3}$ where it belongs on the number line." 	Meeting
Fractions of Sets Example: "There are 9 candies in one package. How many candies are in $\frac{2}{3}$ of a package?"	Meeting
Comparing and Fraction Equivalence Example: Compare these fractions: $\frac{2}{3}$ $\frac{2}{4}$	Meeting
Reasoning with Fractions to Solve Problems Example: "I have a string that is 1 ft. long. I cut off $\frac{1}{3}$ ft. How much is left?"	Meeting

Support your student at home.

- Look for fractions in daily life and talk about what they mean. Look for them in recipes, on highways, in supermarkets, on the news etc.
- Follow recipes and think about different values. For example, "This recipe calls for $\frac{3}{4}$ stick of butter. How much butter do we need if we double the recipe?"

Explore these websites:

PhET - Fractions Intro: <https://tinyurl.com/phetfractionintro>



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*Plans include on-demand software training and preparation for administering the Fractional Reasoning Screeners. Two add-on PD modules – **FRS Essentials** and **FRS Results** – help educators with administering assessments and interpreting results.*

In Their Words

“The fractional screener was a great tool to use to find out what students know. I liked how the questions from the screener assessed different levels of understanding of fractions, so I can see who needs certain skills.”

- *4th Grade Teacher, Englewood Public Schools*

Beyond the Math



Contact Us



Tamara Mack

Communications Manager

Email: sales@forefront.education

Phone: (720) 534-9476

