



GRADES K-5 MATHEMATICS FRACTIONAL REASONING SCREENERS

Request for Information

2023

Alabama State Department of Education (ALSDE)

Division of Instruction

Montgomery, AL

***There will not be a formal proposal opening and no contract will be awarded. This is an opportunity for interested entities to present their materials to the ALSDE to be reviewed and vetted as part of a list of recommended fractional reasoning screeners provided by the Elementary Mathematics Task Force to all school districts in the state of Alabama, in accordance with the *Alabama Numeracy Act*. (Ala. Code 16-6G-1, *et. Seq.*) All material received by ALSDE will be shared with the Elementary Mathematics Task Force. All communication must be through the ALSDE contact.**

SECTION 1: BACKGROUND, PURPOSES, AND TIMELINE

The Alabama State Department of Education (ALSDE) is seeking submission of fractional reasoning screeners from any individuals or firms. This Request for Information is not an offer to contract but seeks the submission of fractional reasoning screener program materials from interested providers for the purpose of assisting the Elementary Mathematics Task Force in the provision of recommendations to the State Superintendent of Education and State Board of Education concerning fractional reasoning screeners in accordance with the [Alabama Numeracy Act](#).

Anticipated Timeline

Questions Due	September 22, 2023
Responses Due	October 6, 2023
Proposal Submission Deadline	October 23, 2023

SECTION 2: FRACTIONAL REASONING SUBMISSION REQUIREMENTS

The Elementary Mathematics Task Force, requests submission of program materials and resources for fractional reasoning screeners to be reviewed by the Elementary Mathematics Task Force and the ALSDE. Submitted materials must include:

- Teacher editions
- Student texts
- Program assessments
- Scope and sequence for Grades 4-5
- One binder containing four tabs, one for each area listed below.
 - List of vendor contact information, qualifications, experience, and references from users of this product.
 - Completed [Fractional Reasoning Screener Rubric](#) including specific references in Grades 4-5 of each designated standard as noted in the Required Components below.
 - Description of how vendor addressed the Overall Design components listed below.
 - Description of how vendor addressed the non-Negotiables listed below.

Overall Design

1. Statewide per-student cost structure for each product individually and any combination of products for which a proposal is provided in this submission.
2. Itemized list of professional development that is included or available for purchase with each product. Include number of hours, content covered, audience, and cost. Include detailed descriptions of development, Alabama-specific training materials, and support provided to utilize the assessment and its reporting system.
3. Provide student proficiency reports on a scale of 1, 2, 3, 4 with Level 1 serving as the lowest level, Level 3 demonstrating a level of proficiency, and Level 4 demonstrating a level that exceeds proficiency.
4. Description of the process for creating automatic reports for teachers, administrators, and parents. Provide examples of all available reports. Provide a link to the platform or video demonstrating the process in the electronic submission.
5. Description of the timelines in creating assessment reports for teachers, administrators, and parents for beginning, and end of the year administrations.
6. Description of the assessment, screening and diagnostic capabilities for monitoring student progress.

7. Description of the integration of assessment results with instructional support for teachers and students (i.e., student learning paths and or personalized student suggestions for Tier II/III instruction).
8. The time required to administer each assessment product for which a proposal is submitted.
9. A signed assurance letter on company letterhead agreeing to the following conditions if granted recommendation as a vendor.
 - a. Sign data sharing agreement with the ALSDE for all assessment data.
 - b. Send the ALSDE information requested in the data map reporting chart including support for and complete rostering identifiers – TCERT, SSID.
 - c. Submit beginning and end-of-year Data Reports.
 - d. Work with ALSDE and LEAs to ensure all assessment data are sent from the vendor to the ALSDE and PowerSchool in the format and frequency to be determined by ALSDE, LEAs, and PowerSchool.
 - e. Provide a minimum of two quick turnaround reports per calendar year to meet ALSDE deadlines in the format and the time frame to be determined by the ALSDE.
 - f. Complete a linking study with ACAP.
10. Description of accessibility features and accommodations are allowed for students in special populations: disabilities, including hearing and vision impairments and English Learners. Include alternate assessment options that are provided for students with the most significant cognitive disabilities (include examples and links).
11. Evidence of alignment with the 2019 Alabama Math Course of Study.
12. Link to the assessment site for reviewers to take assessments and see reports.
13. Vendor qualifications, and experience, and references from users of this product.

Fractional Reasoning Screener Non-Negotiables

- The screener is an interview tool that is implemented one-on-one between teacher and student, face to face, with no computer screen involved.
- Provide starting points for intervention or further assessment.
- Inform prompt and preventative responses to support student success.
- Monitor strengths and areas for improvement in Tier I instruction.
- Immediately:
 - Identifies the deficiencies of students.
 - Provides teacher with student groups based on identified deficiencies.
- Recommends/informs Tier II and Tier III interventions for the teacher.
- Time efficient in administration (can be administered, scored, and interpreted quickly and accurately).
- Provides evidence of alignment to the 2019 Alabama Math Course of Study.
- Tasks at each grade level are aligned with the end of the grade-level expectations from the prior year.
- There are opportunities to touch on standards from lower grade levels.
- Includes a series of counting questions.

Required Components

Grade Four

Denominators are limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100.

- Place a fraction on an open number line:
 - With pre-existing partitions.
 - With no partitions.
- Count up to one by unit fraction parts understanding/recognizing the one as one (1) whole.
- Recognize when the numerator and denominator are the same nonzero number, you have one whole.
- Count by unit fractions backwards from one to zero.
- Count concrete fractional objects to determine amount in unit fractions and mixed numbers recognizing when the numerator and denominator are the same nonzero number you have a whole.
- Compare fractions by reasoning about their size in word problem type situations. Fractions in the word problems should have same numerator or same denominator.
- Demonstrate equivalent fractions using number lines.
- Demonstrate equivalent fractions using a range of visual fraction models.
- Decompose a fraction $\frac{a}{b}$ as the quantity formed by a parts of $\frac{1}{b}$ size.
- Representing unit fractions with area models.
- Representing unit fractions with length models.
- Representing equivalent fractions using a variety of objects and pictorial models.

Grade Five

- Write a fraction as a sum of two fractions in more than one way, i.e., $\frac{5}{8} = \frac{3}{8} + \frac{2}{8}$ and $\frac{1}{8} + \frac{4}{8}$.
- Given a fraction, find and model an equivalent fraction.
- Compare fractions based on benchmarks of 0, $\frac{1}{2}$, or 1.
- Write a fraction to represent a decimal value less than 1 (limited to tenths or hundredths).
- Comparing and ordering fractions to hundredths.
- Comparing and ordering decimals to hundredths.
- Adding and subtracting fractions and mixed numbers with like denominators using fraction equivalence and properties of operations.
- Multiplying a whole number times a fraction.

SPECIFIC DISQUALIFIER FOR REVIEW:

The ALSDE reserves the right to reject any or all proposals which are deemed to be non-responsive, late in submission, or unsatisfactory in any way. This RFI aligns with the [Alabama Numeracy Act](#), which states that the state of Alabama hereby terminates all plans, programs, activities, efforts, and expenditures relative to the implementation of the educational initiative commonly referred to as the Common Core State Standards. Therefore, any references to Common Core Standards in the proposal will result in immediate rejection.

SECTION 3: OTHER

Specific terms and requirements in this Request for Information may be waived or modified by the State of Alabama as it deems necessary and appropriate.

The state has no liability for any costs incurred by a prospective provider for the preparation and production of materials or for any work performed as a result of this request.

Responders will be notified via email when a formal recommendation report is available for review.

ALSDE does **not** expect to award a contract pursuant to any submission received. Moreover, the ALSDE makes no representation concerning selection, award, or financial support of any proposal.

Only the final results of the review may be considered public. Any work papers, individual evaluator or consultant comments, notes, or scores will not be considered public. The final results of the review will not be publicly available until final submission is reported.

The ALSDE reserves the right to reject any and all submissions and to solicit additional submissions if that is determined to be in the best interests of the State of Alabama.

SECTION 4: SUBMISSION DEADLINE

DUE DATE: Send six hard copies of Fractional Reasoning Screener materials to the mailing address listed. Include the **completed** [Fractional Reasoning Screener Rubric](#).

All materials for review must be received at the address below by Friday, September 22, 2023, 4 P.M. CDT.

MAILING ADDRESS:

Alabama State Department of Education
ATTN: Dr. Karen Anderson
Office of Mathematics Improvement
Gordon Persons Building
50 North Ripley Street
Montgomery, AL 36104



Alabama State Department of Education Universal Fractional Reasoning Screener Rubric Math Grades 4 and 5



Alabama State Department of Education Fractional Reasoning Screener Rubric for Vendor Completion

Vendor	
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**Alabama State Department of Education
Universal Fractional Reasoning Screener Rubric
Math Grades 4 and 5**

Grade Level

Fourth Grade	Location of Evidence
1. Place a fraction on an open number line: <i>(Denominators are limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100)</i>	
a. with pre-existing partitions	
b. with no partitions	
2. Count up to one by unit fraction parts understanding/recognizing the one as 1 whole	
3. Recognize when the numerator and denominator are the same non zero number, you have one whole	
4. Count by unit fractions backwards from one to zero	
5. Count concrete fractional objects to determine amount in unit fractions and mixed numbers recognizing when the numerator and denominator are the same non zero number you have a whole	

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Universal Fractional Reasoning Screener Rubric
Math Grades 4 and 5**

6. Compare fractions by reasoning about their size in word problem type situations Fractions in the word problems should have same numerator or same denominator	
7. Demonstrate equivalent fractions using number lines	
8. Demonstrate equivalent fractions using a range of visual fraction models	
9. Decompose a fraction <i>a/b</i> as the quantity formed by <i>a</i> parts of <i>1/b</i> size	
10. Representing unit fractions with area models	
11. Representing unit fractions with length models	
12. Representing equivalent fractions using a variety of objects and pictorial models	
Fifth Grade	
1. Write a fraction as a sum of two fractions in more than one way. i.e., $\frac{5}{8} = \frac{3}{8} + \frac{2}{8}$ and $\frac{1}{8} + \frac{4}{8}$	
2. Given a fraction, find and model an equivalent fraction	
3. Compare fractions based on benchmarks of 0, $\frac{1}{2}$, or 1	

**Alabama State Department of Education
Universal Fractional Reasoning Screener Rubric
Math Grades 4 and 5**

4. Write a fraction to represent a decimal value less than 1 (limited to tenths or hundredths)	
5. Comparing and ordering fractions to hundredths	
6. Comparing and ordering decimals to hundredths	
7. Adding and subtracting fractions and mixed numbers with like denominators using fraction equivalence and properties of operations	
8. Multiplying a whole number times a fraction	