

Louisiana Believes

Integrating LEAP 360 into Math
Planning and Instruction

Supervisor/Principal Collaboration

November 2017

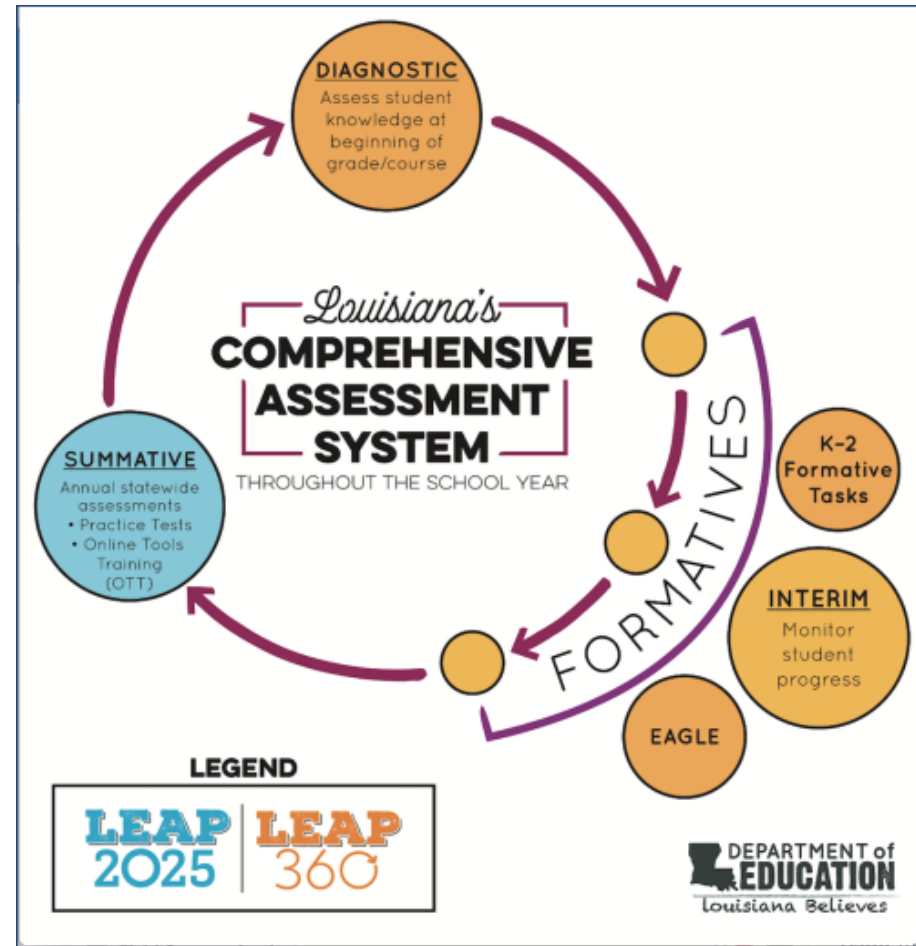


LEAP 360

There are three main purposes for classroom assessment:

1. Know where students are when they enter a classroom
2. Monitor how students are learning content over the year
3. Verify what students have learned

LEAP 360 pairs with LEAP 2025 to reduce overall testing time while realizing all four purposes. **It also allows teachers to develop a deep understanding of the expectations of the standards.**



Getting the Most Out of LEAP 360

LEAP 360 will help teachers

1. know where students are when they enter a classroom,
2. develop a deep understanding of the expectation of the standards,
3. monitor how students are learning content over the year,
4. make informed instructional decisions, and
5. verify what students have learned.

Teachers should

1. understand the purpose and general design of each assessment,
2. analyze items and how they align to the standards,
3. analyze and score student work,
4. analyze class and student level data, and
5. know beneficial and potentially detrimental ways to respond to the assessment data.

We will explore these steps for LEAP 360 assessments in today's session.

Agenda

- LEAP 360 Math Diagnostic Assessments
- Integrating Educator Scored Items into PLCs
- LEAP 360 Math Interim Assessments
- Wrap Up

LEAP 360 Diagnostic Assessments

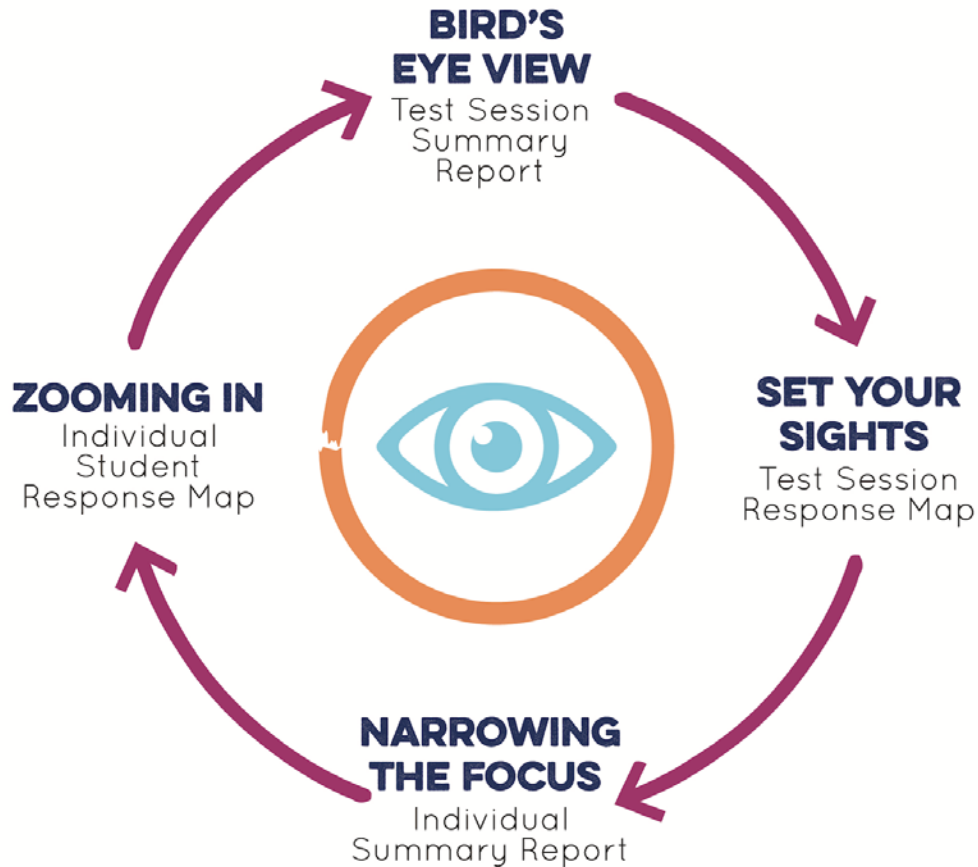
Purpose and General Makeup

LEAP 360 Math Diagnostic Assessments are designed to:

- Identify the specific prerequisite understandings and skills individual students or groups of students need in order to be successful with grade level content
- Understand student performance on previous grade level content that is a foundational to major content in math
- Assist with meaningful, yet ambitious goal setting for student learning targets

Assessment Tool	Includes	Recommended Window	Reporting
Math Diagnostic Assessments for Grades 3-8, Algebra I, and Geometry	1 form (3 sessions)	Beginning of year/course	Student, Groups, School, District, State

LEAP 360 Diagnostic Assessments Integrating Results into Instruction



LEAP 360 reports are designed to work together, taking teachers through a specific process.

Group Analysis:

1. Test Session Summary Report
2. Test Sessions Response Map
3. School Summary Report

Individual Analysis:

1. Student Summary Report
2. Student Response Map

LEAP 360 Diagnostic Assessments

Integrating Results into Instruction

The results from the 7th grade diagnostic assessment are given for 3 students. Analyze the results and discuss the following questions with the people at your table.

- What information about student learning do these results provide?
- What would be the next steps for your instruction?

6th Grade Cluster	Ben	Molly	Tia
Ratios and Proportional Relationships	$7/9$ 78%	$8/9$ 89%	$2/9$ 22%
The Number System	$10/14$ 71%	$4/14$ 29%	$7/14$ 50%
Expressions and Equations	$10/19$ 53%	$17/19$ 89%	$4/19$ 21%
Geometry	Not Assessed	Not Assessed	Not Assessed
Statistics and Probability	Not Assessed	Not Assessed	Not Assessed

LEAP 360 Diagnostic Assessments Integrating Results into Instruction

Given the diagnostic assessment results for Ben, Molly, and Tia and the standards addressed in Module 1 of 7th grade Eureka, which students do you think will need additional support to access the on grade level work?

Cluster	Ben	Molly	Tia
RP	7/9 78%	8/9 89%	2/9 22%
NS	10/14 71%	4/14 29%	7/14 50%
EE	10/19 53%	17/19 89%	4/19 21%

Module 1: Ratios and Proportional Relationships			
Topic A	Topic B	Topic C	Topic D
Proportional Relationships	Unit Rate and the Constant of Proportionality	Ratios and Rates Involving Fractions	Ratios of Scale Drawings
7.RP.A.2a	7.RP.A.2b	7.RP.A.1	7.RP.A.2b
	7.RP.A.2c	7.RP.A.3	7.G.A.1
	7.RP.A.2d	7.EE.B.4a	
	7.EE.B.4a		

(Module 1 Table from the 7th Grade [Louisiana Guide to Implementing Eureka.](#))

LEAP 360 Diagnostic Assessments Integrating Results into Instruction

Given the available student results, the knowledge of what Eureka Topic addresses each standard, and the 7th grade [Eureka Remediation Tools](#) available for Module 1....

Cluster	Ben	Molly	Tia
RP	7/9 78%	8/9 89%	2/9 22%
NS	10/14 71%	4/14 29%	7/14 50%
EE	10/19 53%	17/19 89%	4/19 21%

Module 1: Ratios and Proportional Relationships			
Topic A	Topic B	Topic C	Topic D
Proportional Relationships	Unit Rate and the Constant of Proportionality	Ratios and Rates Involving Fractions	Ratios of Scale Drawings
7.RP.A.2a	7.RP.A.2b	7.RP.A.1	7.RP.A.2b
	7.RP.A.2c	7.RP.A.3	7.G.A.1
	7.RP.A.2d	7.EE.B.4a	
	7.EE.B.4a		

7 th Grade	
Module 1, Topic A	✓
Module 1, Topic B	✓
Module 1, Topic C	✓

.....which tool would you use with which students?

LEAP 360 Diagnostic Assessments Integrating Results into Instruction

After student and class level data analysis occurs, teachers should:

Set Goals

Work with students to set meaningful, ambitious learning goals for the year

Determine Gaps

Identify content that will need more intensive instruction as it is approached throughout the year and plan to build-in additional time or scaffolding accordingly

Plan for “just in time” Support

Recognize patterns in both individual and group misconceptions and use that information to create warm up activities and/or focused intervention groups

After this level of analysis occurs, teachers *should not*:

- Teach the missed prerequisite standards for several weeks and readminister the diagnostic assessment to see if students “got it”
- Label students as “high” or “low” and group them accordingly for the entire year

Agenda

- LEAP 360 Math Diagnostic Assessments
- Integrating Educator Scored Items into PLCs
- LEAP 360 Math Interim Assessments
- Wrap Up

Educator Scored Items

Type II and Type III items are hand-scored. These items target Expressing Mathematical Reasoning and Modeling and Application.

Teachers should use educator scored items in PLC's to:

1. Analyze items and how they align to the standards
2. Analyze and score student work
3. Use the assessment scoring guidance to norm expectations across multiple teachers, both within a single grade and among multiple grades (Diagnostic assessments)
4. Collaboratively discuss approaches to supporting struggling students








We will use the next few minutes to practice how this might look in a PLC.

Educator Scored Items

Standard: 3.NF.A.3 (Type II item)

Item:

Session 2: No Calculator Training Student

Question 31  Page 1 of 2      

An incomplete comparison is shown.

$$\frac{3}{8} \square \frac{3}{4}$$

Adam thinks that the comparison will be complete and true as $\frac{3}{8} > \frac{3}{4}$ because $8 > 4$, but Adam made a mistake in his thinking.

Part A

Describe the mistake Adam made in his thinking.

eo







Discuss:

Educator Scored Items

Standard: 3.NF.A.3 (Type II item)

Item:

Session 2: No Calculator Training Student

Question 31      

An incomplete comparison is shown.

$$\frac{3}{8} \square \frac{3}{4}$$

Adam thinks that the comparison will be complete and true as $\frac{3}{8} > \frac{3}{4}$ because $8 > 4$, but Adam made a mistake in his thinking.

Part B

Using $<$, $=$, or $>$, complete the comparison to make it true. Explain how you know your comparison is true.

$$\frac{3}{8} \square \frac{3}{4}$$

Discuss:

Educator Scored Items

Analyzing items collaboratively (the previous activity) can help teachers better understand the expectations of the standards.

Scoring assessment items collaboratively can help educators:

- norm expectations with other educators
- have meaningful conversations about student misconceptions
- Collaboratively discuss approaches to supporting struggling students

Using the Scoring Information on the next slide, score each given Anchor Paper.

- Discuss the assigned score with your table
- Identify the misconception the student had demonstrated (if applicable)

Educator Scored Items

Part A (1 point)

- Correct description of mistake made (1 point)

Sample Student Response:

Adam compared the denominators of the fractions as if they were whole numbers, instead of comparing the number of parts of a whole.

Part B (2 points)

- Correct comparison using symbolic notation (1 point)
- Valid explanation of why comparison is true (1 point)

$$\frac{3}{8} \boxed{<} \frac{3}{4}$$

Sample Student Response:

The equal-sized parts of a whole that is divided into 8 are smaller than the equal-sized parts of a whole that is divided into 4, so 3 of the smaller parts are less than 3 of the larger parts, and the comparison is true.

OR

I know that $\frac{3}{4} = \frac{6}{8}$. I can compare $\frac{3}{8}$ and $\frac{6}{8}$ as $\frac{3}{8} < \frac{6}{8}$ because the denominators are both 8, which means that each whole is divided into the same 8 equal-sized parts. Since the comparison $\frac{3}{8} < \frac{6}{8}$ is true, $\frac{3}{8} < \frac{3}{4}$ is true.

Educator Scored Items

Turn and Talk

- How would this exercise help teachers as they score tasks?
- How would this exercise help as teachers plan classroom instruction and assessments?
- How has your district/school scored items?
- How are teachers sharing results of educator scored items?

Agenda

- LEAP 360 Math Diagnostic Assessments
- Integrating Educator Scored Items into PLCs
- LEAP 360 Math Interim Assessments
- Wrap Up

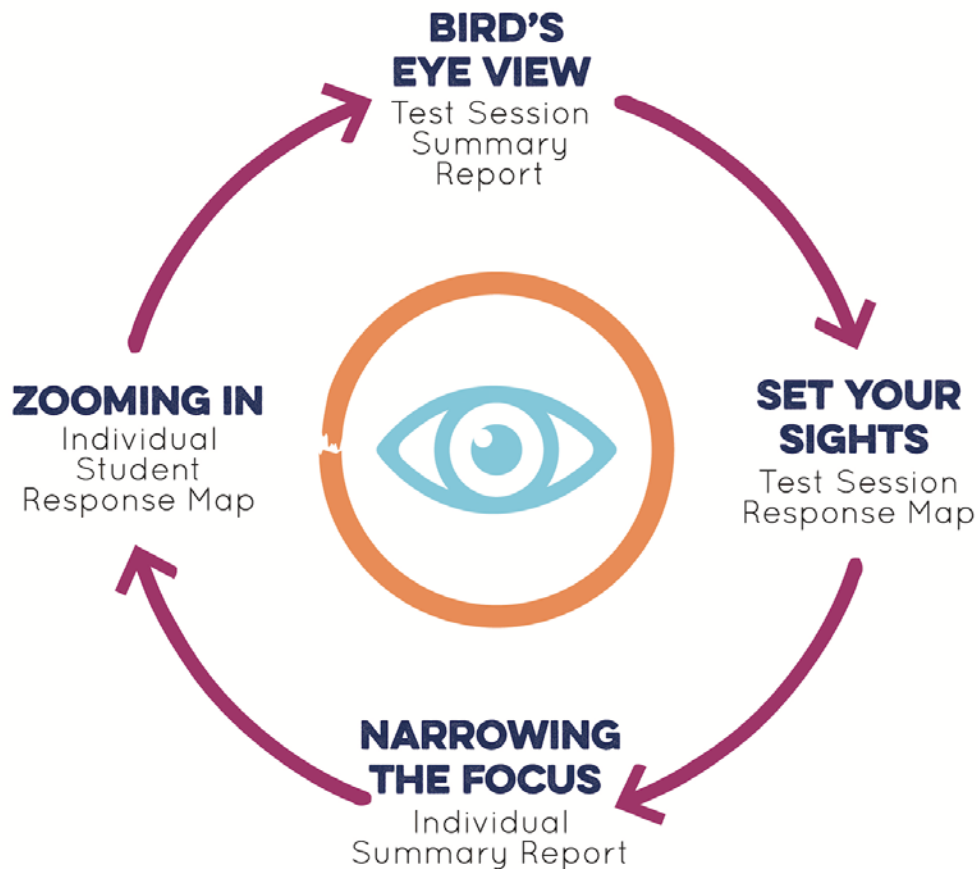
LEAP 360 Interim Assessments Purpose and General Makeup

LEAP 360 Math Diagnostic Assessments are designed to:

- Analyze student data to identify student-specific and classwide patterns in learning and misconceptions
- Adjust instruction and target support for students in need
- Gauge progress toward end-of-year goals

Assessment Tool	Includes	Recommended Window	Reporting
Math Interim Assessments for Grades 3-8, Algebra I, and Geometry	2 forms in grades 3-8; 3 forms for high school courses	Based on curriculum and instructional pacing	Student, Groups, School, District, State

LEAP 360 Interim Assessments Integrating Results into Instruction



LEAP 360 reports are designed to work together, taking teachers through a specific process.

Group Analysis:

1. Test Session Summary Report
2. Test Sessions Response Map
3. School Summary Report

Individual Analysis:

1. Student Summary Report
2. Student Response Map

LEAP 360 Interim Assessments

Integrating Results into Instruction

Before administering the assessment, teachers should **analyze items** to better understand the expectations of the standards. **After** student and class level data analysis occurs, teachers should:

Evaluate Goals

Evaluate progress towards end-of-year goals

Determine Gaps

Identify specific content that will need more intensive instruction as it is approached throughout the year and work to build-in additional time or scaffolding accordingly

Plan for “just in time” Support

Recognize patterns in individual and misconceptions and use that information to create warm up activities and/or focused intervention groups

After administering the assessment, teachers ***should not*** re-teach the standards for which students did not demonstrate proficiency over several weeks and readminister the interim assessment to see if students “got it.”

Agenda

- LEAP 360 Math Diagnostic Assessments
- Integrating Educator Scored Items into PLCs
- LEAP 360 Math Interim Assessments
- Wrap Up

LEAP 360 Assessments

The table below outlines what this process might look like for teachers.

LEAP 360 Diagnostic Assessments <i>(Start-of-Year)</i>	LEAP 360 Interim Assessments <i>(Throughout the Year)</i>	LEAP 2025 Assessments <i>(End-of-Year)</i>
<ol style="list-style-type: none"> 1. Pair previous year's LEAP 2025 results with LEAP 360 Diagnostic Assessment information. 2. Develop a goal for end-of-year performance based on these Findings. 3. Conference with students and look at baseline data together to set meaningful, end-of-year goals. 4. Build goals along with the action steps the student will take to reach them. 	<ol style="list-style-type: none"> 1. Review results of LEAP 360 Interim Assessments. 2. Evaluate progress toward end-of-year performance goals. 3. Conference with students and look at interim results together to identify areas of strength and opportunities for improvement. 4. Develop next steps to either stay on track or catch up. 5. Adjust instructional plans as needed. 6. Repeat 2-3 times throughout the year. 	<ol style="list-style-type: none"> 1. Administer LEAP 2025 statewide assessments. 2. Use statewide scores (available during the summer) to study student performance data and determine the degree to which goals were realized. 3. Break down results by subclaim or domain to reflect on effectiveness of instruction and determine areas for growth for the next school year.

Data to Instruction

Areas to Consider	Example of Pattern	Recommendations
Key Math Understandings/Skills	Students struggle (or do very well) with specific understandings/skills associated with standards (place value, like units, etc.)	Identify specific understandings/skills; address weaknesses through mini-lessons, strategic warm up activities, and/or intensive support that focuses on key math understandings/skills. Build connections between standards students are having success with and the standards creating issues for students (e.g., showing connections between place value and standard algorithms for arithmetic).
Specific Types of Questions	Students struggle with multiple-select items	Have students frequently interact with multiple select items and/or self-create multiple-select items and discuss them in groups. Have groups carefully discuss each answer option, explaining the correct answer and why the other options are incorrect.
Reasoning	Students struggle with providing appropriate reasoning/evidence in written responses	Frequently ask students to provide evidence in class discussions, employ questioning strategies to encourage deeper reasoning, and set expectations for written responses that require reasoning. Discuss quality of evidence/reasoning by examining rubrics and a range of student responses.
Different Types of Tasks	Students struggle to create appropriate models and/or interpret numerical solutions in the context of a model	Analyze completed tasks as a group, identifying strengths and weaknesses in approach. Use modeling/application tasks that move students through the entire modeling cycle.
Rubric Elements	Students struggle with answering all parts of the task	Use the anchor sets and practice scoring sample student work as a class; have students provide evidence of why anchor papers would score certain points. This should be used as an opportunity to talk and discuss math and mathematical approaches, not just a checklist of whether the sample student work answers each component of the questions.

Math Resources



K-12 MATH
PLANNING

[Math Tools on the Math Planning Page](#)

Understand the Standards

- K-12 Louisiana Student Standards for Math
- Teacher Companion Documents
- Focus Documents
- Rigor Documents

Implement the Eureka Curriculum

- Louisiana Eureka Guides (*updated*)

Help Students who Struggle

- Remediation Guides
- Eureka Remediation Tools (*new*)

Assess the Standards

- [LEAP 360](#) (diagnostics, interims, EAGLE)
- Summative Assessment Guidance

Year-long Planning

- Sample Year Plans
- Sample Middle School Accelerated Plans

Reflections

LEAP 360 will help teachers

1. know where students are when they enter a classroom,
2. develop a deep understanding of the expectation of the standards,
3. monitor how students are learning content over the year,
4. make informed instructional decisions, and
5. verify what students have learned.

Teachers should

1. understand the purpose and general design of each assessment,
2. analyze items and how they align to the standards,
3. analyze and score student work,
4. analyze class and student level data, and
5. know beneficial and potentially detrimental ways to respond to the assessment data.

What will you do when you return to your district or school to ensure that LEAP 360 becomes an integrated tool for high quality math instruction?