Let's Go Learn

Using *Pre-Algebra/Algebra* for Blended Learning and Flexible Grouping at the Classroom Level

Overview: *DOMA Pre-Algebra* and *Algebra* are organized into 14 and 11 constructs, respectively. Teachers can use these individual constructs and their breakouts for daily or weekly flexible grouping.

This document covers the following topics:

#1: Use of *DOMA* to Display Class Mastery Report

Use: Daily. Breaks students into flexible groups based on the lesson of the day.

#2: Student Report to Drive Flipped Classroom Review for Students

Use: Weekly. Serves as a way to provide student-driven scaffolding prior to weekly topic utilizing Khan Academy, which offers free instructional videos.

3) *LGL Math Edge* as Automatic Intervention

Use: Daily or weekly. Targets students' lowest skills to reduce the range of student skills in a class.
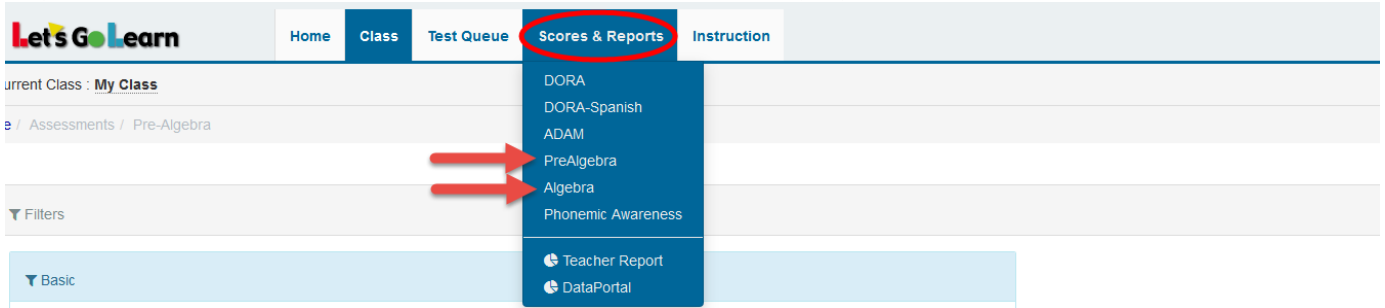
Additional Tips for Teachers:
- If students have taken multiple tests, look at their previous tests to confirm low scores. If scores suddenly drop, the student may not have tried his or her best in the latest test administration.
- Read the admin script to students so they know to move on when encountering math concepts unfamiliar to them.
- Walk the lab as students are testing. Be sure students don't linger. If they are fatigued, stop them.
- Have an alternative activity for students ahead of time so they don't disturb their peers who may still be testing.
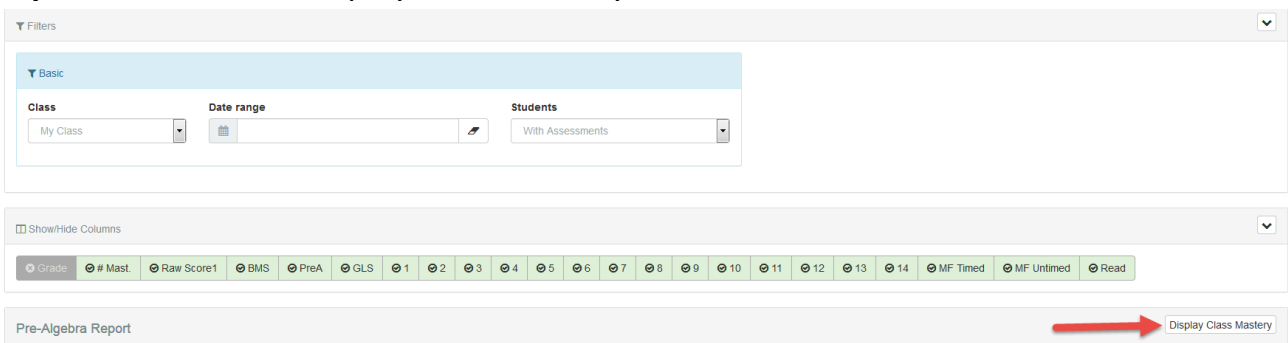
1: Use of *DOMA* to Display Class Mastery Report

Step 1: Go to the *Pre-Algebra* or *Algebra* assessment page.

Step 2: Click on the <Display Class Mastery> button.

Step 3: Select the specific construct you will be focusing on in your daily lesson. In this case, let's say it is fractions.

Next, click on the <Create Report> button.

Step 4: You now can view the overall mastery of your class for the entire construct or by any individual test item.

Prealgebra Class Mastery Report

Teacher	LGL DEMO Account
Class	Pre-Algebra
Test Date Range	
Number of Students	5
Date Run	09/12/2016

Results

Fraction Operations	65 %
Fraction identification	80 %
Simplifying fractions	80 %
Adding fractions with the same denominator	80 %
Subtracting fractions with the same denominator	60 %
Adding fractions with different denominators	60 %
Subtracting fractions with different denominators	60 %
Multiplying fractions	60 %
Dividing fractions	60 %
Adding mixed numbers with regrouping	60 %
Subtracting mixed numbers with regrouping	60 %
Multiplying mixed numbers	60 %
Dividing mixed numbers	60 %

1. These are the individual questions presented to each student.
2. This is the overall mastery of the entire class for this construct.
3. This is the overall mastery of the entire class for each individual test item.

Step 5: When you click on any heading, more breakout information is available that will be useful for your flexible grouping. In the example below, we clicked on the "Fractions Operations" overall construct.

On this page, the teacher can sort students into mastery and non-mastery groups for each individual test item/skill listed. In this example, there are twelve fractions skills sorted from easiest to hardest (easiest on top and hardest at the bottom).

Fraction Operations

Results

Column	Fraction Operations	65 %
26	Fraction identification	80 %
27	Simplifying fractions	80 %
28	Adding fractions with the same denominator	80 %
29	Subtracting fractions with the same denominator	60 %
30	Adding fractions with different denominators	60 %
31	Subtracting fractions with different denominators	60 %
32	Multiplying fractions	60 %
33	Dividing fractions	60 %
34	Adding mixed numbers with regrouping	60 %
35	Subtracting mixed numbers with regrouping	60 %
36	Multiplying mixed numbers	60 %
37	Dividing mixed numbers	60 %

Students

Show 25 entries   Download Print

First Name	Last Name	26	27	28	29	30	31	32	33	34	35	36	37
Brianna	Bailey	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Greg	Daniel	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Edward	Edwards	N	N	N	N	N	N	N	N	N	N	N	N
Sarah	Jessica	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sarah	Stevens	Y	Y	Y	N	N	N	N	N	N	N	N	N

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Step 6: The teacher may also click on any individual test item/skill, view a list of students who have achieved mastery or non-mastery, and give them homework assignments.

Results	
Fraction Operations	**56 %**
Fraction identification	75 %
Simplifying fractions	75 %
Adding fractions with the same denominator	75 %
Subtracting fractions with the same denominator	50 %
Adding fractions with different denominators	50 %
Subtracting fractions with different denominators	50 %
Multiplying fractions	50 %
Dividing fractions	50 %
Adding mixed numbers with regrouping	50 %
Subtracting mixed numbers with regrouping	50 %
Multiplying mixed numbers	50 %
Dividing mixed numbers	50 %

Individual Test/Skill Item

Fraction identification

Show 25 ▼ entries   Download   Print   Assign

First Name	Last Name	Correct	HW
Greg	Daniel	Y	☐
Edward	Edwards	N	✔
Sarah	Jessica	Y	☐
Sarah	Stevens	Y	☐

Showing 1 to 4 of 4 entries

Previous   **1**   Next

Close

The link below details how to use the Assignment Tool after selecting your student(s) and clicking "Assign":
https://letsgolearn.quickbase.com/db/bkqf8797p?a=dr&r=vj&rl=bw6

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#2: Student Report to Drive Flipped Classroom Review for Students

Step 1: Print out student reports for each student. Go over the report with the student, pointing out quarterly areas of focus. Give a copy to the student and hold on to a copy for yourself.

1. In the example below, "Evaluating Advanced Exponents" is a partially mastered construct. The skills with the minus (-) sign are the ones the student needs to master.
2. In the "Solving and Graphing Inequalities" construct, this student needs to learn the entire construct.

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DOMA Algebra™ - Summary Report
(Diagnost Online Math Assessment)

Student:
Assessment Date: **07/31/2018**
Age: **15** yrs **8** months
Grade: **11**

Summary Scores
Raw Score (0 to 11): **5**
No. Constructs Mastered: **4**

Test Question Legend

+	Tested Correctly
-	Tested Incorrectly
N/T	Not Tested

🟢 Mastery of Construct*
🟡 Partial Mastery of Construct*
⭕ Non-mastery of Construct*

Construct 1: Evaluating Advanced 🟡 Exponents

Partial mastery demonstrated by construct testing

Test Question	Results
Zero exponent rule	+
Applying a negative exponent	+
Multiplying monomials	+
Dividing monomials	-
Applying negative exponents to variables	-
Multiplying in scientific notation	+
Dividing in scientific notation	-

Construct 2: Solving Linear 🟢 Equations

Construct 4: Relations and 🟢 Functions

Mastery demonstrated by Pre-Screening

Test Question	Results
Identifying a function from a relation	nt
Completing the input/output for a function	nt
Identifying range/domain	nt
Identifying a graph from a relation chart	nt
Writing a function from data	nt
Identifying a function from a graph	nt
Using a stem and leaf table	nt

Construct 5: Solving and Graphing ⭕ Inequalities

Non-mastery demonstrated by construct testing

Test Question	Results
Solving a linear inequality	-
Solving an absolute value inequality	-
Solving a compound inequality	-
Graphing a two-variable inequality	nt
Graphing an inequality system	nt

Construct 6: Solving and Graphing 🟢 Systems of Linear Equations

Mastery demonstrated by complete construct testing

Test Question	Results
Solving systems using substitution	+
Solving systems using addition	+
Solving systems using subtraction	+

Construct 9: Radical Expressions and 🟡 Equations

Partial mastery demonstrated by construct testing

Test Question	Results
Simplifying radical expressions without variables.	-
Simplifying radical expressions with variables	+
Rationalizing the denominator of a rational expression	-
Adding radical expressions	+
Subtracting radical expressions	+
Multiplying radical expressions	-
Solving radical equations	+

Construct 10: Quadratic Equations ⭕

Non-mastery demonstrated by construct testing

Test Question	Results
Finding the axis of symmetry of a quadratic equation	-
Finding the vertex coordinates of a quadratic equation	-
Finding the x-intercepts of a quadratic equation	-
Graphing quadratic equations	-
Identifying a perfect square trinomial	nt
Completing the square of a quadratic equation	nt
Solving quadratic equations	nt

Construct 11: Rational Expressions and ⭕ Equations

Non-mastery demonstrated by construct testing

705 Wellesley Ave. - Kensington, CA 94708
Main: 888-618-7323 - Fax: 415 367-4569

Step 2: Khan Lessons - A student logs into Let's Go Learn and clicks on the "Start" button next to Khan.

St _____ or her summary
re _____ ls Brianna did not master in the "Estimating and Rounding" construct. All the relevant Khan lessons are listed in order from easiest to hardest under each construct.
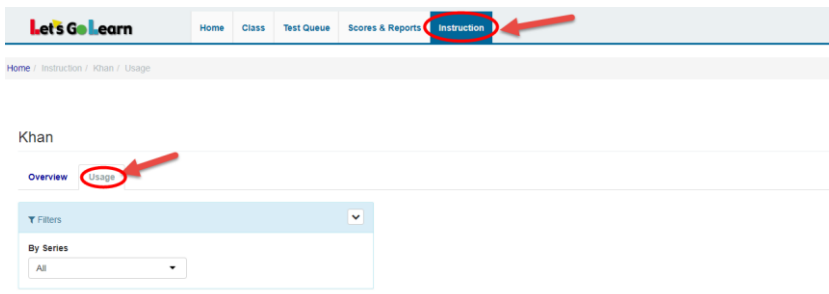

Khan Academy Lesson Assignments for Brianna
Based on PreAlgebra assessment completed on 03/03/2016 administered in English

Instructions
- Click on any of the five tabs below.
- Sub-tests with the most lessons labeled as High should be done first.
- Within each sub-test, do lessons in order. For instance, lesson 1, lesson 2, lesson 3, etc.

Sub-test	Lesson	Priority	Number of Views	Last Viewed On
Estimating and Rounding				
	Khan Lesson 1	high	0	
	Khan Lesson 2	high	0	
	Khan Lesson 3	high	0	
	Khan Lesson 4	high	0	
Evaluating Exponents				
	Khan Lesson 1	low	0	
	Khan Lesson 2	low	0	
	Khan Lesson 3	low	0	
	Khan Lesson 4	low	0	
	Khan Lesson 5	low	0	
	Khan Lesson 6	low	0	
	Khan Lesson 7	low	0	

* Teachers can monitor whether a student clicked on links by going to the **<Instruction>** tab, clicking on "Khan," and clicking on "Usage."

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#3: *LGL Math Edge* as Automatic Intervention

Step One: Click on the <Instruction> tab and choose "Edge 2.0."

Step Two: On the "Enroll/Edit" tab, you can start by enrolling students into *Math Edge.* In addition, you can edit any student's personalized course after he or she has begun doing lessons. See below.

1) The "Last Assessed" column shows when the student last completed an assessment. If students have not taken an assessment within the last 120 days, the automatic assignments will not work because our system needs a "current" assessment for accurate course building.
2) Click on the <Enroll> button; the button will then change to an <Edit> button.
3) Once students are enrolled, you can toggle the course ON or OFF. This will either hide or show the "Edge" activity icons when students log into Let's Go Learn.
4) You may also toggle the course ON and OFF for the whole class next to "Adjust Class Status."

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Step Three: When clicking the <Enroll> button, you will see "Enroll Options" and the recommended course based on the most recent assessment your student completed. You may click on "Edit" prior to enrolling to see the customized lessons chosen for your student.

Enroll Options

	Series	Recommendation	Assessment Date
⦿	PreAlgebra	**Recommended** - [edit]	2018-06-01 13:07:06.324688
○	Algebra	No Alignment	
○	ADAM K-7	No Alignment	
○	Lesson Sets	Select ▾	

Close   Enroll Now

- The tabs below organize all the available lessons by their instructional level.
- Blue backgrounds lessons are those recommended by the assessment.
- You may uncheck any lesson to unassign it. Or you may check others to assign them.
- Click the <Enroll Student> button when you are ready to enroll the student into an Edge course.

| **①** Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 | Grade 6 | Grade 7 | Grade 8 **③** |

☐ Add to 100 B No Group   ☐ Early Fractions Intro   ☑ Commutative Associative **②**

Enroll Student **④**

1) For this student, the lowest level of lessons is "Grade 1."
2) The titles in blue are recommended based on the latest assessment. A teacher may uncheck any recommended lesson or check any lesson not recommended.
3) Clicking on the other tabs shows the teacher the other lessons assigned to this student that fall into higher instructional grade levels.
4) When the teacher is confident that placements are correct, he or she may click on the <Enroll Student> button at the bottom of the page.