

Because learning changes everything."

Using ALEKS to Personalize Learning in an Inquiry Based Math Class

Deidre Roemer West Allis West Milwaukee West Allis West Milwaukee School District

- 7500 Students
 - 11 Elementary Schools
 - 3 Intermediate Schools
 - 2 Comprehensive High Schools
 - 1 PBL High School
 - 1 Charter School for School-Age Parents
- 60% FRL
- 16% SPED
- 6% EL
- 217 Students who are homeless

Our Why

• <u>Strategic Plan</u>

- <u>Our Mission:</u> Every day, the West Allis-West Milwaukee School District focuses on equity through deeper learning, fosters a sense of belonging, and educates the whole child so that every learner achieves success.
- Our Vision: The West Allis-West Milwaukee School District aspires to create experiences that build community and empower learners so they can live <u>live</u> <u>life on their own terms.</u>

Our Why- Equity Non negotiables

- The Deeper Learning Competencies (Master Academic Content, Problem Solving/Critical Thinking,
 Communication, Collaboration, Self-Directed Learning,
 Academic Mindset) will drive instructional planning to increase equitable opportunities for all students.
- Eliminating inequities begins with each of us; we see students as people with assets and aspirations and it is our job to help them realize their goals and dreams.

Where we were....

- 2016-2017- Projected to have 0 (yes ZERO) students in advanced math by 2019-2020.
- 2016-2017- Short Panic
 - Added hybrid Algebra/Geo
 - Added hybrid Geo/Alg 2
 - Added summer bridge course
- 2017-2018- Adopted ALEKS as core resources for Alg. 1, Geo, Alg. 2
 - Lessons learned!!!

Where we are now!

- <u>l am not a rapper</u>
- Student reflection
 - "I was listening to an artist named kendrick lamar so I drew dreads plus I have them.
 - I drew him in a stance of glory because I'm doing good in math.
 - I drew math equations and symbols and numbers around him.
 - I used a dark greenish cyan, orange, yellow, brownish-tan, red, blue and black."



I better get my math right.



Essential Questions

 How can we, as a team of local citizens, propose a winning design for a multipurpose arena for our favorite sport?

 How do graphs, averages, and outliers tell a story of a group of people? How can we see the world through another person's eyes, using quantitative data analysis?

Where does ALEKS fit?

- *"Technology will never replace great teachers, but technology in the hands of a great teacher can be transformational."* George Couros
- SO IMPORTANT!! The students and families need to understand the WHY!
- Set goals with each learner, each week
- Use the reports for students to self-report and to personalize.
- Confer, confer, confer

Math 115 / Middle School Math Course 1 / LV 6 - Dashboard

Class Code: XXXXX-XXXXX

CLASS TOOLS 📝

22

LEKS Pie Report		Attempted, Not Yet I	Learned					
	55%	Reflecting a point acro and giving its coordina		14% >		th no remain livisor		36% >
207	Progress 207 of 374	Division with no remains two-digit divisor: Prob		11% >	Decimal su	ibtraction: Ad	dvanced	32%)
	Topics	Converting a decimal fraction without simpli Advanced		11% >	Division w Problem ty	th trailing zer pe 1	ros:	29% >
		Simplifying a fraction		11% >	Divisibility	rules for 2, 5	5, and 10	29% 3
Select slice to see mastery. View	r Full Report »			View All »				View All
ost in Recent Assessment	-	Class Information			Time and	Topic - Lear	ning Mode	10000.000
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Converting a fraction with a denominator of 10 or 100 to a decimal Jsing tables to compare ratios Nord problem with multiple	11% > 11% >	Class Code: X6Y39-XMEVE Course Product: Middle School Math	10/10/20 - Class Grad	28 tion: 02/11/21	3M 24 16	1M		1₩
Converting a fraction with a denominator of 10 or 100 to a decimal Using tables to compare ratios Nord problem with multiple decimal operations: Problem type t Plotting mixed numbers on a	11% ≥ 11% ≥ 7% ≥	Class Code: X6YJ9-XMEVE Course Product: Middle School Math Course 1 / LV 6 Instructor:	10/10/20 - Class Grad	28 tion: 02/11/21	3M 24 16	IM		÷ 1w

Current Progress

ALEKS Table of Contents	Objectives	Standards				
iew Course Content by Objection	ontent by Objectives view all topics / hide all topics ①					
Ch.0-Preparing for Algel	bra					Progress 93%
			Progress 🕞	Remaining 👔	Ready to Learn (j)	Attempted, Not Yet Learned (j)
• Factors			100%	0%	0%	0%
Greatest common factor	of 2 numbers		100%	0%	0%	0%
Least common multiple of	f 2 numbers		100%	0%	0%	0%
Least common multiple o	f 3 numbers		97%	3%	0%	0%
Equivalent fractions			100%	0%	0%	0%
 Simplifying a fraction 			100%	0%	0%	0%
Division Involving zero			100%	0%	0%	0%
• Finding the LCD of two fr	actions		94%	5%	0%	0%
Addition or subtraction of	fractions with the same de	nominator	100%	0%	0%	0%
· Introduction to addition of	or subtraction of fractions w	ith different denominators	100%	0%	0%	0%
Addition or subtraction of	f fractions with different der	ominators	100%	0%	0%	0%
• Product of a unit fraction	and a whole number		100%	0%	0%	0%
+ Product of a fraction and	a whole number: Problem t	ype 1	100%	0%	0%	0%
Introduction to fraction m	nultiplication		100%	0%	0%	0%

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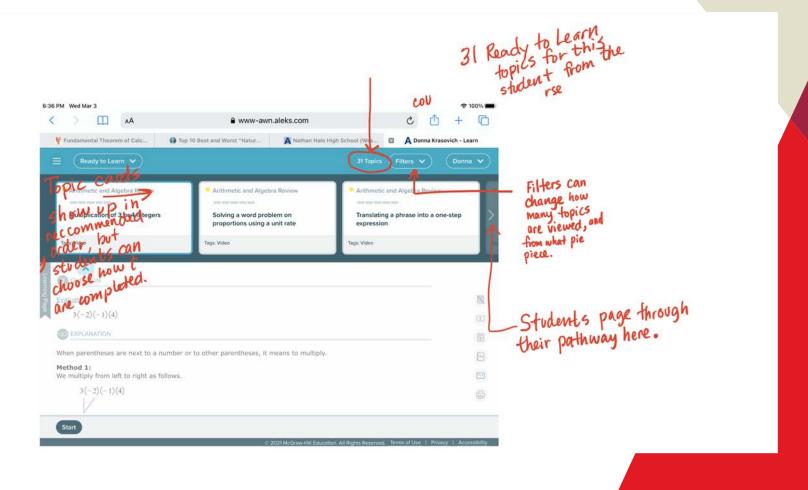
Instructor: Smith Name: Math 133 Course Product: Algebra 1 Start Date: 08/31/2020 End Date: 02/11/2021 Textbook: Glencoe Algebra 1 (McGraw-Hill, 2014)

Switch to Objectives without Due Dates

	Objective	Start Date	Due Date	Post Objective Knowledge Check	Order
	Chapter 0 Edit (250 goal topics)	08/31/2020 12:00 AM	09/11/2020 11:59 PM		÷
	Chapter 1 Edit (88 goal topics)	09/12/2020 12:00 AM	09/23/2020 11:59 PM		*
2	Chapter 2 Edit (163 goal topics)	09/24/2020 12:00 AM	10/05/2020 11:59 PM		Ť
2	Chapter 3 Edit (47 goal topics)	10/06/2020 12:00 AM	10/19/2020 11:59 PM		Ť
2	Chapter 4 Edit (48 goal topics)	10/20/2020 12:00 AM	10/26/2020 11:59 PM		*
2	Chapter 5 Edit (67 goal topics)	10/27/2020 12:00 AM	11/06/2020 11:59 PM		\$
2	Chapter 6 Edit (38 goal topics)	11/07/2020 12:00 AM	11/19/2020 11:59 PM		×.
2	Chapter 7 Edit (93 goal topics)	11/20/2020 12:00 AM	12/01/2020 11:59 PM		*

ontent			Class Code: X6WWW	-JUC36 CLASS TOOLS
elect up to 60 questions to include in this assignment.		Þ		
andomly add 5 🗸 questions from 7.RP: Ratios & Proportion	ons	~	Add	Preview Assignment
View by Standards Cha	inge 🗸	Your Assignment		
7.EE: Expressions & Equations	~			
All Topics	~			
Open All	Add			
7.EE.A.2: Understand that rewriting an expression can sh light on a problem	ned		Drag	
Finding the multiplier to give a final amount after a percentage increase or decrease	01		Questions	1
Clearing fractions in an equation	07		Here	
Writing algebraic expressions for the perimeter of a figure	01		·	.)
Writing algebraic expressions for the area of a figure	Q			
Writing equivalent expressions for the volume of a rectangular prism	Q			
7.EE.B.3: Solve problems posed with rational numbers in form	any			
7.EE.B.4.A: Solve word problems leading to equations; so equations fluently	olve			

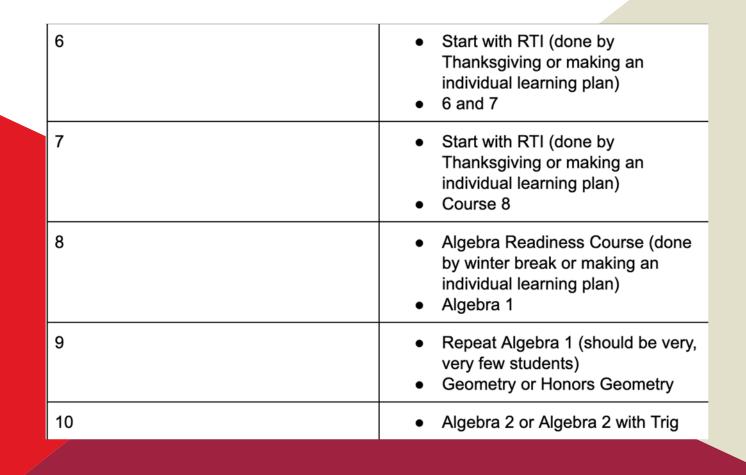
Personalizing the pathway- Doing with instead of for our learners



Personalizing the pathway- Doing with instead of for our learners

WAWM Geometry		
ALEKS Pie Detail	Dec 10	Donna 🗸
Introduction to the power of a power rule of expo	onents	Español
Introduction to adding fractions with variables an	d common denominators	, one and the local sector
Simplifying a ratio of multivariate monomials: Bas	sic	and the last test test
Solving for a variable in terms of other variables	using addition or subtraction with division	and data size and
Distributive property: Integer coefficients		
Using distribution and combining like terms to sir	mplify: Univariate	
Introduction to solving a linear equation with a vi	ariable on each side	(mill mill site state mill
Writing algebraic expressions for the perimeter o	of a figure	ware some base base
Introduction to solving a rational equation		
Translating a phrase into a one-step expression		Toma and have seen to a
Identifying solutions to a linear equation in one v	variable: Two-step equations	
Solving a linear equation with several occurrence	es of the variable: Variables on the same side	
Square root of a perfect square		
Greatest common factor of 2 numbers		
Solving a word problem on proportions using a u	init rate	
Division of a decimal by a power of ten		
The reciprocal of a number		- many name interf many
Sioned fraction addition or subtraction: Basic	© 2021 McGraw-Hill Education: All Rights Rese	wert Terms of Use Privacy Accessibility
M Wed Mar 3	www-awn.aleks.com	

Our adjusted pathway.



Our outcomes

- Highest ACT scores in 5 years
- Growth scores on the rise on our school report card
- Student Achievement Scores on the rise on our school report card
- More sections of Geometry than Algebra for the first time
- Many more learners confident in their math skills



Thank You!

Because learning changes everything."



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