learning focus:

model, write, and solve two-step equations and inequalities

determine if a value makes an equation true

represent the solution for equations and inequalities on a number line



EQUATIONS & INEQUALITIES



a 14 day TEKS-aligned unit TEKS: 7.10A, 7.10B, 7.10C, 7.11A, 7.11B, 7.11C

ready-to-go, scaffolded student materials

EQUATIONS AND INEQUALITIES UNIT

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streamline your planning process with unit overviews

EQUATIONS AND INEQUALITIES OVERVIEW EXADINESS STANDARDS SUPPORTING STANDARDS 7.11A. Model and solve one-variable, two-step equations and inequalities. SUPPORTING STANDARDS 7.10B. Write one-variable, two-step equations and inequalities. 7.10A. Write one-variable, two-step equations and inequalities to represent constraints or conditions within problems. 7.10C Write a corresponding real-world problem given a one-variable, two-step equations and inequalities true. 7.10C Write a corresponding real-world problem given a one-variable, two-step equations and inequalities true. 7.10C Write a corresponding real-world problem given a one-variable, two-step equations and inequalities true. 7.10C Write a corresponding real-world problem given a one-variable, two-step equations and inequalities true. 7.10C Write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships.					ess one- estrue. metry n a	key vocabulary vertical alignment						ent	
Mathematical and real-world Inequalities can represent re										0	l n	acin	
	PACING GUIDE				.1116.5					TEKS		ucm.	9
	DAY 1		DAY 2	DA	3	DAY 4	en E		DAY 5		l c	alen	dar
ESSENTIAL QUESTION	Simplifying One-Step Equations Two-Step Expressions		/o-Step Equatio	uations Two-Step Equations Wri with Integers			Equations	tep					
What process can be used toHow can you determine whiceHow can a real-world situation	Student Han Homewo	ndout 1 rk 1	Student Handout 2 Homework 2	S	udent Handout Homework 3	3 Studen	nt Ha	andout 4	Student Hando	ut 5			
	DAY 6 Two-Step Equ	uations	DAY 7 Solving Equations Quiz	T	EQUA OVERV	TIONS /	AN	ID INE	QUALITI	ES			TEKS
	Application				TOPIC		TEACHING TIPS						
	Student Han	idout 6	Quiz 1		Combining	j Like Terms	•	Write seve swatter. V Continue v	eral different types of te When you call out a terr with other students. Ke	erms on the b m, the first str eep score if y	oard. Ask two s udent to "swat" a our students ca	students to come up to the bo a like term wins the point for t n handle it. ©	pard with a fly the team.
	Homework 6 Quiz 1 DAY 11 DAY 12 I		ī			•	Check out our blog post with ideas for incorporating Algebra tiles to teach solving equations. https://www.maneuveringthemiddle.com/how-to-teach-solving-equations/					IS.	
	Applicatio Inequalit	on of ies	Inequalities Quiz		Solving One-	Step Equations	٠	Start by dis the founda This will co	splaying a very long ar ation for these types of ome in handy when rat	nd complex ea equations. 1 ional number	quation on the b hen, require stu 's are included i	oard. Explain that today you idents to show their steps as n a few days.	are setting they solve.
	Student Hand	dout 10			Solving Two-	Step Equations	•	Give stude on the boa solving and	ents individual white bo ard, the first person will d the third will check th	oards and hav I solve step o ne equation.	re them work in ne. The second Have groups ho	teams of three. With one equ person will complete the sec Id up their boards when they	uation written cond step in are finished.
	Homewor	k 10	Quiz 2				ŀ	Typically, i them to us using thes	inequalities are more d se a chart or notes, it c e three questions:	lifficult becau an be benefic	se of the vocab ial to have them	ulary required. Though it is h n think about the context of th	elpful for e problem
teaching 🗾						 Can it be equal to the value? Can it be more than the value? Can it be less than the value? 							
			Inequalities		 It is also always helpful to relate it back to something they are very comfortable with (e.g. money, grades). 								
ideas 🗡 🐪						 Help students to see that multiplying or dividing by a negative is taking the opposite and thus requires a sign change. 							
							•	I like to end the graph	courage students to w will go in the same dire	rite the inequ ection as the i	ality with the va nequality symb	riable on the left. If students ol.	do this, then
										©Maneuvering	g the Middle LLC, 2017		

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unit study guide + assessments

Unit: Equations & Inequalities Quiz 1	Name Date	<pre> </pre>
QUIZ: SOLVING EQUATION Choose the answer choice that has the co	NS rrect simplified expression.	Answers ditable unit tos
1. 5q + 17 + 8q - 12 2.	15 – 3m – 4m – 12	V editable unit les
A. 22q - 4q A. B. 18q B. C. 13q + 2q C. D. 13q + 5 D.	7m + 3 Unit: Equations & Inequalities Review	NamePd
Solve each of the following equations for 3. $-3x + 9 = -18$ 4.	EQUATIONS AND IN Solve each of the problems below. T to ask questions if you need more he I CAN MODEL AND SOLVE TWO-STE 1. -5x + 9 = 24	NEQUALITIES UNIT STUDY GUIDE These represent the types of questions on your test. Be sure up vith a topic. P EQUATIONS. 2
5. Which value of x makes the equation b		
A. x = -12 B. x = 10 6. Sammy is solving the equation below. V step should Sammy complete first?	4. 5.	SEVENTH GRADE CURRICULUM
$\frac{x}{2} + 8 = -24$ A. Add 8 to both sides B. Subtract 8 from both sides C. Multiply both sides by 2 D. Divide both sides by 2	7. Sketch a model to represent the e $2x + 2 = 12$. Then, solve the equation	EQUATIONS & INEQUALITIES
	I CAN DETERMINE IF A VALUE IS TRU 9. If x = -3, then which of the follow	UNIT TWO: ANSWER KEYS
	$\boxed{\frac{x}{3} - 9 = 15}$	
included	keys	©MANEUVERING THE MIDDLE, 2017