WAUCONDA SCHOOL DISTRICT 118
UNIT PLANNING ORGANIZER

Subject: Algebra 1A

Grade Level or Course: Algebra 1A

Unit: 2 Solving Inequalities (Topic 1B) Pacing: 13 days

STAGE 1 – DESIRED RESULTS

Essential Questions:

- **How do you represent relationships between quantities that are not equal?**
- **Can inequalities that appear to be different be equivalent?**
- **How can you solve inequalities?**

Big Ideas:

- **Students will learn to write and graph inequalities.**
- **Students will use properties to generate equivalent inequalities.**
- **Equivalent inequalities are generated by using the properties of inequalities.**
- **Inequality symbols are flipped when multiplying or dividing both sides of an inequality by a negative number.**

CCSS (Priority Standards):

- **A.REI.1, A.CED.1, A.REI.3, N.Q.1, A.CED.4, N.Q.2, A.SSE.1, A.SSE.1.b**
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STAGE 2 – EVIDENCE

Concepts (What students need to know)	Performance Tasks (What students will be able to do)	21st Century Skills
• Solve single step and multi-step inequalities • Solve compound inequalities • Solve absolute value inequalities • Work with sets • Unions and intersections	• translate inequalities into sentences • solve inequalities by addition/subtraction • solve inequalities by multiplication/division • solve inequalities involving more than one operation • graph the solution of the inequality on a number line • represent the solution in interval notation • solve inequalities with the variable on each side • solve inequalities involving grouping symbols • solve absolute value inequalities	Students will learn to use linear equations in one variable to solve mixture problems, to determine the best buy for concert tickets and music download services, and to represent constant rate problems. Students will use formulas and literal equations to solve real world problems involving distance and measurement. Students will learn to interpret data within the contexts of real-world problems, such as comparing costs of purchasing roses, comparing shades of paint, and finding the minimum and maximum costs for hotel rooms.

Common Formative/Summative Assessments:

- **Quizzes**
- **Written post test**

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Interim Assessments (Informal Progress Monitoring checks):

- **Question and Answer**
- **Daily Homework**
- **Daily Warmup**
- **IXL Diagnostic Test**

Modified Common Assessments:

- **Test 1.5-1.7 (as needed per IEP)**

Modified Interim Assessments:

Daily checks

STAGE 3 – LEARNING PLAN
(INSTRUCTIONAL PLANNING)

Suggested Resources/Materials/Informational Texts

IXL Personalized software program
Pearson enVision Algebra I Common Core
calculator

Suggested Research-based Effective Instructional Strategies

Identifying Similarities and Differences - The ability to break a concept into its similar and dissimilar characteristics allows students to understand (and often solve) complex problems by analyzing them in a more simple way. Teachers can either directly present similarities and differences, accompanied by deep discussion and inquiry, or simply ask students to identify similarities and differences on their own. While teacher-directed activities focus on identifying specific items, student-directed activities encourage variation and broaden understanding, research shows.

Summarizing and Note Taking - These skills promote greater comprehension by asking students to analyze a subject to expose what's essential and then put it in their own words. According to research, this requires substituting, deleting, and keeping some things and having an awareness of the basic structure of the information presented.

Cues, Questions, and Advance Organizers Cues - Questions, and advance organizers help students use what they already know about a topic to enhance further learning. Research shows that these tools should be highly analytical, should focus on what is important, and are most effective when presented before a learning experience

Cooperative Learning - Research shows that organizing students into cooperative groups yields a positive effect on overall learning. When applying cooperative learning strategies, keep groups small and don't overuse this strategy-be systematic and consistent in your approach.

Reinforcing Effort and Providing Recognition - Effort and recognition speak to the attitudes and beliefs of students, and teachers must show the connection between effort and achievement. Research shows that although not all students realize the importance of effort, they can learn to change their beliefs to emphasize effort.

Taken from: *Marzano's Nine Instructional Strategies for Effective Teaching and Learning*

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Academic Vocabulary/ Word Wall	Enrichment/Extensions/ Modifications	Interdisciplinary Connection
Essential Vocabulary: ● **equivalent** ● **formula** ● **inverse operations** ● **literal equation** ● **percent of change** ● **proportion** ● **rate** ● **ratio** ● **scale** ● **unit analysis** **Worth-knowing Vocabulary:** ● **conversion factor** ● **cross product** .		