**Activities for unit and sequence**

**Curriculum Materials and Vocabulary:**

**Teacher Copy – Integrated II Unit 14: Systems of Equations and Inequalities**

**Universal Essential Question: Why is resilience an influence on success?**

**Essential Question: How does imbalance require resilience?**

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| **Learning Objectives**I can… | **Curriculum Material Ideas**Items can usually be found in dropbox | **Vocabulary Ideas** |
| Part 1 Identify systems that have no solution and infinite solutions. | Intro to SystemsSolve Systems by Graphing | ConsistentInconsistentSolution: infinite, no solution, one solutionIntersectionSystemDependentIndependent |
| Graph systems of equations. |
| Identify the intersection and explain the meaning. |
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| Part 2 Find the solution of a system using substitution. | Solve systems by substitution |  |
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| Part 3 Find the solution of a system using elimination. | Solve systems by eliminationBest way to solve systems?Post-it systemsEtch-a-Sketch |  |
| Identify which method for solving is the most efficient for different systems? |
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| Part 4 Write and model a system of equations for a real world problem.  | Applications of systemsMore applications of systems |  |
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| Part 5 Graph a linear inequality.  | Graph linear inequalities and systems | Constraint |
| Graph a system of linear inequalities. |
| Model problems with inequalities and systems of inequalities. |

**Integrated II Unit 14: Systems of Equations and Inequalities**

**Universal Essential Question: Why is resilience an influence on success?**

**Content Essential Question: How does imbalance require resilience?**

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| **Learning Objectives**At the completion of this unit, I should … | **Self-Rating, what you understand/don’t yet understand and (last column only) how you learned it**0 – I have no idea.1 – I cannot solve problems yet but I am beginning to understand the strategies2 – I can solve problems but do not yet know why the math works.3 – I understand why the math works and can solve most problems but still make mistakes.4 – I understand why the math works and can consistently and accurately solve problems.  |
| **Know** * The solution to a system is the point of intersection
* The solution to a system of inequalities is the intersection
* Vocabulary involving systems and systems of inequalities
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| **Be able to*** Identify systems that have no solution and infinite solutions.
* Graph a system of linear equations.
* Solve a system using substitution.
* Solve a system using elimination.
* Identify which method is most effective for specific problems.
* Graph a linear inequality.
* Graph a system of linear inequalities.
* Write and model a system of equations and inequalities for a real world problem.
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| **Understand*** The point(s) of intersection are the values that satisfy all algebraic equations.
* That systems have different types of solutions
* The intersection of linear inequalities is the solution to a system of linear inequalities
* That systems of inequalities have different types of solutions
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**Vocabulary of systems**

Consistent

Inconsistent

Solution: infinite, no solution, one solution

Intersection

System

Dependent

Independent

Constraint

System of inequalities

**Reflection page**

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| Areas of success for this unit and justification | Areas that need more practice and/or deeper understanding, justification, and specific goals to achieve complete mastery |

How does the mathematics we studied in this unit relate to the content and universal essential questions? Be specific by providing evidence from your learning activities for the unit.