Unit #1: System of Equations

Content Area: **Math**
Course(s):
Time Period:
Length: **6 Days**
Status: **Published**

State Mandated Topics Addressed in this Unit

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N/A	N/A

System of Equations

Learning Objectives

• Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.

• Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

• Determine an explicit expression, a recursive process, or steps for calculation from a context.

• Solve systems of linear equations algebraically (include using elimination method) and graphically, focusing on pairs of linear equations in two variables.

• Write a function that describes a relationship between two quantities.

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Essential Skills

• Essential Skill 1 - Artists will be able to solve system of linear equations with two variables.

• Essential Skill 2 - Artists will be able to create and solve equations.

• Essential Skill 3 - Artists will be able to create and solve inequalities.

• Essential Skill 4 - Artists will be able to write a function that describes a relationship between two quantities

• Essential Skill 5 - Artists will be able to determine an explicit expression, recursive process, or steps for calculations from a given context

• Essential Skill 6 - Artists will be able to write a function that describes a relationship between two quantities.

• Essential Skill 7 - Artists will be able to combine functions using arithmetic operations.

• Essential Skill 8 - Artists will be able to build a function by combining two functions and relate the

resulting functions to a model.

Standards

MATH.9-12.F.BF.A.1.a	Determine an explicit expression, a recursive process, or steps for calculation from a context.
MATH.9-12.F.BF.A.1.b	Combine standard function types using arithmetic operations.
MATH.9-12.A.CED.A.1	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.
MATH.9-12.A.REI.C.6	Solve systems of linear equations algebraically (include using the elimination method) and graphically, focusing on pairs of linear equations in two variables.

Instructional Tasks/Activities

- Academic games
- Independent practice
- Ladder Activity
- Ti-Nspire activities
- Worksheets

Assessment Procedure

- Class discussions
- Classroom Total Participation Technique
- Classwork/homework
- DBQ
- Electronic active responders
- Essay
- Exit Ticket/Entrance Ticket/Do Now
- Identify the error problems
- Journal / Student Reflection
- Kahoot
- Other named in lesson
- Peer Review
- Performance
- Problem Correction
- Project
- Quiz
- Quizzes/tests

- Response and analysis questions

- Rubric

- Teacher Collected Data

- Teacher observations

- Test

- Worksheet

Recommended Technology Activities

- Appropriate Content Specific Online Resource

- Chromebook

- Copy/Paste Content Specific Link Here

- Copy/Paste Content Specific Link Here

- Copy/Paste Content Specific Link Here

- Gimkit

- GoGuardian

- Google Classroom

- Google Docs

- Google Forms

- Google Slides

- Kahoot

- MagicSchool AI

- Other- Specified in Lesson

- Power Point

- Quiziz

- Screencastify

- TI-Nspire CX-Cas activities throughout the unit as appropriate

Accommodations & Modifications & Differentiation

Accommodations and Modifications should be used to meet individual needs. Their IEP and 504 plans should be used in addition to the following suggestions.

Special Education

Modifications and accommodations to this unit will be based on individual IEP needs and through the collaboration of the classroom teacher and the special education teacher under the direction of the Supervisor of Special Education.

Gifted and Talented

- Compare & Contrast
- Conferencing
- Debates
- Jigsaw
- Peer Partner Learning
- Problem Solving
- Structured Controversy
- Think, Pair, Share
- Tutorial Groups

Instruction/Materials

- alter format of materials (type/highlight, etc.)
- color code materials
- eliminate answers
- extended time
- extended time
- large print
- modified quiz
- modified test
- Modify Assignments as Needed
- Modify/Repeat/Model directions
- necessary assignments only
- Other (specify in plans)
- other- named in lesson
- provide assistance and cues for transitions
- provide daily assignment list
- read class materials orally
- reduce work load
- shorten assignments
- study guide/outline
- utilize multi-sensory modes to reinforce instruction

Environment

- alter physical room environment
- assign peer tutors/work buddies/note takers
- assign preferential seating
- individualized instruction/small group
- modify student schedule (Describe)
- other- please specify in plans
- provide desktop list/formula

Honors Modifications

Resources

- https://curriculum.newvisions.org/math/course/algebra-ii/
- www.Khanacademy.com