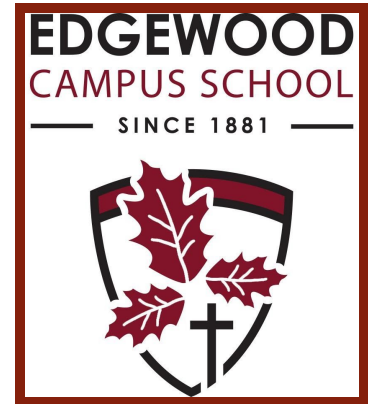


Algebra IA

2020-2021

Mrs. Jennifer Koziar

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Mathematical Practice Goals: Students will

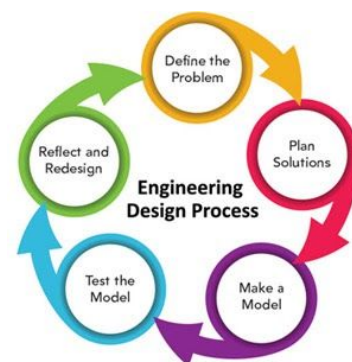
- Accurately choose, communicate and apply computational methods used for real life applications
- Be able to apply math skills and problem solving strategies to solve multiple-step problems
- Communicate mathematical ideas and reasoning effectively

Curriculum Content Goals:

- Recognize, represent, solve & graph linear functions
- Reflexively process linear function applications and tasks
- Solve systems of linear equations using graphing, elimination and substitution methods
- Represent and solve mixture problems and uniform rate problems
- Explore concepts surrounding functions and attributes of basic parent functions (linear, quadratic, exponential, radical, inverse variation)
- Explore principles of functions (translation, reflection, dilation, absolute value, and basic rotations)
- Explore exponential functions, applications and power rules
- Learn about polynomials including simplification and factoring techniques
- Carefully dissect quadratics - explore attributes of quadratics from a data, graph and equation perspective
- Solve quadratic functions using graphs, zero product theorem, completing the square and quadratic formula
- Derive quadratic formula
- Work with radicals - explore properties of radicals, simplify and solve radical equations, reason through extraneous solutions
- Work with rational equations and functions - learn techniques to identify attributes of functions, simplify, solve and reason through excluded values
- Work with absolute value as it impacts functions - anticipate outcomes of absolute value
- Work with special properties of right triangles and trigonometric ratios

Cross-Curricular Projects:

- Lake Wingra longitudinal research project in collaboration with science
- Science/Computer Science connections



Expectations:

- Homework is completed in pencil with both effort and quality, and homework is completed in a timely fashion
- Students come to class prepared daily (homework completed, pencil, notebook, textbook, charged Chromebook, calculator and other requested tools)
- Students strive to use available resources to support understanding
- Students are responsible for connecting with teacher regarding missed concepts due to illness or planned absence
- Students should maintain an 85% or higher average
- Students should positively engage in discussions and activities

Assessment:

- Class Participation - 10% (overall effort, participation in discussion, completion of warm-up problems and notes)
- Homework - 30% (daily work, math labs, weekly IXL)
- Tests/Cumulative Reviews/Topic Quizzes - 60%

Classroom Rules: “The Triple R”

- Respect yourself - always try, use resources, seek help when needed
- Respect others - strive to maintain a positive working environment for all, wear a mask and be cognizant of social distancing requirements
- Respect property - keep the classroom clean and come to class prepared to work

Helpful Hints:

- Show your work to describe your thought process
- Use correct vocabulary when communicating your work
- Use your resources
- Ask for help after you have tried and used your resources
- Stay positive. Mastery does not happen immediately.
- **Be patient with your brain**

Text and Resources:

- www.bigideasmath.com

Username: aone006 Password: Math!rocks

- www.desmos.com
- <http://www.mathopenref.com/>
- IXL.com

Communication:

- Email: jkoziar@edgewoodk8.com
- Classroom Phone: (608)663-4104
- Weekly plan posted in Google Classroom
- FACTs grading system - please contact Mrs. Koziar or Mr. Grabins with program issues