

GCS Curriculum Map for Math 3

Module A: Absolute Value & Piecewise Functions Essential Questions: How do we model situations with multiple rules? What does absolute value represent in context?		Timeline: 2-3 weeks
Performance Event: Taxes Project		
SWBAT: (Mastery Objectives). Solve absolute value equations. Graph piecewise functions. Interpret domains.		
Grade Level Standards		
Grade Level Standards: NC.M3.A-SSE.1 NC.M3.A-CED.1 NC.M3.F-IF.2 NC.M3.F-IF.7		
Instructional Resources		
Tier III Vocabulary: Absolute Value, Piecewise, Domain, Range	Performance Tasks: Taxes Project	Additional Resources Desmos, Graphing Calculator, Collaborative Tasks
Remediation Skills, Extensions and Considerations: - Remediation: Scaffolded notes, guided practice, Weekly Reviews - Extension: Real-world modeling, challenge problems - Considerations: Support multilingual learners with visuals and sentence stems		
ELD Standard 1: Social and Instructional Language Multilingual Learners communicate for Social and Instructional purposes within the school setting. ELD-SI.4-12.Explain Generate and convey initial thinking		

- Follow and describe cycles and sequences of steps or procedures and their causes and effects
- Compare changing variables, factors, and circumstances
- Offer alternatives to extend or deepen awareness of factors that contribute to particular outcomes
- Act on feedback to revise understandings of how or why something is or works in particular ways

ELD Standard ? ELD-MA.9-12. Explain. Interpretive Interpret mathematical explanations by:

- Identifying concept or entity.
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Module B: Polynomial Functions Essential Questions: How do polynomials behave? How are zeros connected to factors?		Timeline: 3–4 weeks
Performance Event: Roller Coaster Design		
SWBAT: (Mastery Objectives) Factor polynomials. Analyze graphs. Use remainder theorem.		
Grade Level Standards		
Grade Level Standards: NC.M3.A-APR.2 NC.M3.A-APR.3 NC.M3.N-CN.9		
Instructional Resources		
Tier III Vocabulary: Polynomial, Zeros, Degree, End Behavior, Intervals of Increase/Decrease	Performance Tasks: Roller Coaster Design	Additional Resources: Desmos, Graphing Calculator, Collaborative Tasks
Remediation Skills, Extensions and Considerations: - Remediation: Scaffolded notes, guided practice, Weekly Reviews - Extension: Real-world modeling, challenge problems - Considerations: Support multilingual learners with visuals and sentence stems		
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Module C: Rational Functions Essential Questions: What makes rational functions unique? How do asymptotes affect graphs?		Timeline: 2–3 weeks
Performance Event: Road Trip Analysis		
SWBAT: (Mastery Objectives) Find slope, Write equations, Calculate rate of change		
Grade Level Standards		
NC.M3.A-APR.6 NC.M3.A-APR.7 NC.M3.A-REI.2		
Instructional Resources		
Tier III Vocabulary: Asymptote, Rational, Hole, Continuous	Performance Tasks: Bridge Modeling	Additional Resources: Desmos, Graphing Calculator, Collaborative Tasks
Remediation Skills, Extensions and Considerations: • Remediation: Scaffolded notes, guided practice, Weekly Reviews • Extension: Real-world modeling, challenge problems • Considerations: Support multilingual learners with visuals and sentence stems		
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Module D: Exponential & Logarithmic Functions		Timeline: 3–4 weeks
Essential Questions: How are logs related to exponents? How do we model growth?		
Performance Event: Time for College Project		
SWBAT: (Mastery Objectives) Solve exponential equations. Use logs. Interpret models.		
Grade Level Standards		
NC.M3.A-SSE.3 NC.M3.F-LE.4 NC.M3.F-BF.4		
Instructional Resources		
Tier III Vocabulary: Logarithm, Growth, Decay, Compound Interest, Continuously Compounded Interest	Performance Tasks: Time for College Project	Additional Resources: Desmos, Graphing Calculator, Collaborative Tasks
Remediation Skills, Extensions and Considerations: • Remediation: Scaffolded notes, guided practice, Weekly Reviews • Extension: Real-world modeling, challenge problems • Considerations: Support multilingual learners with visuals and sentence stems		

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Module E: Inverses		Timeline: 1 weeks
Essential Questions: What is an inverse? How do we verify?		
Performance Event: Encryption Activity		
SWBAT: (Mastery Objectives): Find inverses. Verify inverses		
Grade Level Standards		
NC.M3.F-BF.4		
Instructional Resources		
Tier III Vocabulary: Inverse, Reflection	Performance Tasks: Encryption Activity	Additional Resources: Desmos, Graphing Calculator, Collaborative Tasks
Remediation Skills, Extensions and Considerations:		

• Remediation: Scaffolded notes, guided practice, Weekly Reviews • Extension: Real-world modeling, challenge problems • Considerations: Support multilingual learners with visuals and sentence stems
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Module F: Circles	Timeline: 3–4 weeks
Essential Questions: How are arcs and angles related? How do we model circles?	
Performance Event: Ferris Wheel Project	
SWBAT: (Mastery Objectives) Analyze data, Fit models	
Grade Level Standards	
NC.M3.G-C.2 NC.M3.G-GPE.1	
Instructional Resources	

Tier III Vocabulary: Arc, Radius, Arc length, Sector Area, Radian	Performance Tasks: Data Project	Additional Resources: Desmos, Graphing Calculator, Collaborative Tasks
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Module G: Triangles & Quadrilaterals Essential Questions: How do we prove geometric relationships? What are triangle centers?		Timeline: 2–3 weeks
Performance Event: City Design		
SWBAT: (Mastery Objectives) Identify centers. Prove properties.		
Grade Level Standards		

NC.M3.G-CO.10 NC.M3.G-CO.11 NC.M3.G-CO.14		
Instructional Resources		
Tier III Vocabulary: Centroid, Parallelogram, Incenter, Median	Performance Tasks: City Design	Additional Resources: Desmos, Graphing Calculator, Collaborative Tasks
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Module H: Statistics Essential Questions: How do we make predictions from data? What makes conclusions valid?		Timeline: 1-2 weeks
Performance Event: Survey Project		
SWBAT: (Mastery Objectives) Analyze data. Use simulations.		
Grade Level Standards		
NC.M3.S-IC.1 NC.M3.S-IC.3 NC.M3.S-IC.4 NC.M3.S-IC.5 NC.M3.S-IC.6		
Instructional Resources		
Tier III Vocabulary: Inference, Bias	Performance Tasks: Survey Project	Additional Resources: Desmos, Graphing Calculator, Collaborative Tasks
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