Alloway Township School
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Amy Morley
Chief School Administrator

Kimberly Fleetwood
Business Administrator

Grade 5 Unit 5 — Dates: 4/16/2025 - 6/2/2025

Rationale for Unit 5 Expectations

This final unit in Grade 5 focuses on the additional and supporting concepts and skills to engage learners in analyzing the structure of numerical expressions. Learners expand on what they learned in 4th grade about numerical expressions involving multiplicative and additive comparisons and apply that knowledge to evaluate and write numerical expressions with grouping symbols, write numerical expressions from a description, and interpret numerical expressions.
Learners move on to define a coordinate system and understand the relationship between coordinates and axes. Learners define the first quadrant of the coordinate system and represent real world and mathematical problems by graphing points in that quadrant. They also form ordered pairs that they have generated using two given rules to generate two numerical patterns using two given rules. They analyze and identify apparent relationships between corresponding terms.

Unit 5 Description & Expectations

Days of Instruction: 26 days (iReady sessions, Math In Action, EOY Diagnostic Testing, Built In Extra Days for State Testing, Prerequisites)
Unit Completion Date: 6/2
Unit Topics/Themes: Expressions

Topic: Lesson 30 - Evaluate, Write, and Interpret Expressions
Topic: Lesson 31 - Understand the Coordinate Plane
Topic: Lesson 32 - Represent Problems in the Coordinate Plane
Topic: Lesson 33 - Analyze Patterns and Relationships

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Topic: Lesson - Math in Action

Whole Group Instruction	Differentiation: Teacher Table	Differentiation: Independent Practice/Small Group Center
Guidelines		
30-45 minutes of daily instruction using Core Resources	**30-45 minutes of daily differentiation**	
Number Sense Making Routines: (5-10 minutes daily) Number sense is built through experiences. Vary your sense making routines based on the needs of your classroom. They may be a whole group activity, but they also may be done as a small group depending upon the	**Number of groups to meet with each day: two** When planning for	Activities should be aligned to specific skills & standards addressed during whole group instruction and practice of

need. Example areas of focus: Verbal Counting, Object Counting, Cardinality, Subitizing, Spatial Relationships, One/Two More & Less, Benchmark Numbers, Part-Part-Whole, Magnitude, etc. **Core Resource for Whole Group Instruction:** Ready Classroom Math (30-45 minutes daily) Ready Classroom Math design & expectations: ● **Understand Lessons** - Focus on developing conceptual understanding and help students connect new concepts to familiar ones as they learn new skills and strategies. ● **Strategy Lessons** - Focus on helping students persevere in solving problems, discuss solution strategies, and compare multiple representations through the *Try-Discuss-Connect* routine. Strategy Lessons are taught over multiple days (usually 3-5 days) and consist of different sessions. ○ ***Explore Session***(s) follow the *Try-Discuss-Connect Routine* and draw on students' prior knowledge and make connections to new concepts. ○ ***Develop Session***(s) develop strategies and understanding through problem solving and discourse. ○ ***Refine Session***(s) are when students work independently with a partner, while the teacher monitors performance and differentiates instruction. ● **Math in Action Lessons (Grades 2-6)** - Feature open-ended problems with	differentiation, it is important to first think about what each student needs. You may have different focuses for different groups of students. Below are suggestions to consider when planning for small group differentiated instruction. **Gifted Students:** When planning for students who are gifted, consider differentiating the content, process or product. **Tier I Remedial Groups:** When planning for remedial work (additional work on grade level concepts), identify your Essential Understandings, Objectives, Standards, skills being taught, and Learner Outcomes, then, anticipate the most common unique needs and common misconceptions. Doing this will help you to plan effectively, and form groups	fluency standards.

many points of entry and more than one possible solution. In Math in Action Lessons students apply strategies and build procedural fluency. *Try - Discuss - Connect Routine* is primarily used in Explore and Develop Sessions in Ready Math. Each Step in this routine will have expected Language Routines, Teacher Moves and Conversation Tips. *Language Routines* are predictable, repeatable formats that help students process word problems and communicate their growing understanding. *Teacher Moves* are powerful facilitation techniques to guide conversations in which students talk with each other rather than responding to the teacher. *Conversation Tips* are specific hints that show students what it means to engage in academic discourse. The six tips show students what it means to participate in academic discourse: listening attentively, explaining ideas, justifying, building on the ideas of others, disagreeing respectfully and making connections. ● **Try It** - The teacher displays the *Start* question to draw on prior knowledge to the day's session. The teacher guides students in making sense of the problem, and to slow down to recognize and understand important information in the problem before beginning to solve. Teacher displays the problem and uses: ○ *Language Routines* - Three Reads, Co-Crafted Questions, Notice/Wonder and Say It Another Way ○ *Teacher Moves* - Turn & Talk and Individual Think Time (*Typically 10 seconds to 2 minutes*)	based on daily exit tickets and Ready Unit Prerequisite Report. Support students using scaffolding and/or additional practice for grade level concepts and skills. **Tier II or Tier III Remedial Groups**: When planning your grade level instruction for students that are in Tier II or Tier III considerations of each individual students' Math Intervention Plan need to be taken. Interventions and number sense relationships should be leveraged to support students with grade level content (bridging foundational concepts to support students' work at grade level content). Resources should be aligned to core content instructional resources (ie, Tools for Instruction, Fluency Skills &	

Students apply what they have learned while making sense of the problem to represent the situation using a Part-Part-Whole model and begin solving. ● **Discuss It** - Students work in pairs to share their thinking - even incomplete thinking. Students should analyze their representations and strategies while using sentence frames when appropriate. The teacher strategically selects and sequences students' representations and strategies based upon the learning goal of the lesson. While circulating the teacher should use: ○ *Language Routines* - Compare & Contrast and Collect & Display ○ *Teacher Moves* - Turn & Talk, Individual Think Time and Four Rs (*Repeat, Reword, Rephrase, Record*) Selected students present and explain their solution methods and listen to critiques of others. The teacher facilitates the discussion and the class looks at highlighted strategies in the *Picture It* and *Model It* sections. ● **Connect It** - The teacher and students connect representations and strategies using a combination of individual work time and partner and whole-class discourse. Carefully selected questions lead students to recognize important mathematical ideas that were initially presented in the **Try It** problem. The teacher should use: ○ *Language Routines* - Collect & Display and Compare & Connect ○ *Teacher Moves* - Turn & Talk, Individual Think Time and Four Rs **Closing: (2-5 minutes daily)**	Practice pages, Prerequisite Lessons, Reteach Activities, Vocabulary pages, etc.), while a direct explicit connection between intervention strategies and grade level content is built.	

The closure should be directly related to the goal of the lesson. Formal closure to lessons may consist of synthesizing information learned during the lesson that relates to the objective. For example, students could share with the class something new that they learned that day (the question should be detailed and related to the goal/objective), complete an exit ticket (related to the goal/objective), reflect on what challenged them (related to the goal/objective), etc.		
Whole Group Instruction	**Differentiation: Teacher Table**	**Differentiation: Independent Practice/Small Group Center**
Unit Resources		
● Suggested Pacing Guide ● Ready Unit Flow and Progression Video ● Ready Math Background: Models, Progressions, and Teaching Tips ● Ready Interactive Tutorials ● Ready Unit Self Reflection ● Ready Unit Review ● Ready Discourse Cards/Cube ● Ready Digital Math Tools ● Silent Hand Signals ● Georgia Frameworks (K-5) ● Howard County, MD:	● Scheduling Small Groups and Rotations ● CFAs ● RCM Fluency Practice Pages ● RCM Prerequisite Lessons ● RCM Tools for Instruction Lessons ● RCM Discourse Bookmarks ● K-5 Math Teaching Resources (no direct links to free documents!)	● Scheduling Small Groups and Rotations ● RCM Unit Game ● RCM Literacy Connections Activities ● RCM Discourse Bookmarks ● K-5 Math Teaching Resources (no direct links to free documents!) ● Howard County, MD: ○ Gr 5

○ Gr 5 ● Achieve the Core Coherence Map ● Illustrative Mathematics ● Mindset Mathematics (Gr 3-6) by Jo Boaler ● You Cubed ● San Francisco Unified School District (SFUSD) ○ Gr 5 ● Three Act Tasks: ○ Ms. Castillo's Math (K-5) ○ Graham Fletcher (K-6) ○ Robert Kaplinsky (K-6) ○ Jon Orr (Gr 3-6) ○ Kyle Pearce (Gr 3-6) ● Sense Making Routines: ○ Subitizing Slides (Steve Wyborney) ○ Estimation 180 (Andrew Stadel) ○ Esti-Mysteries (Steve Wyborney) ○ Even More Esti-Mysteries (Steve Wyborney) ○ Estimation Clipboard (Steve Wyborney) ○ Which One Doesn't Belong (Christopher Danielson) ○ Math Visuals (Berkley Everett)	● Virtual Manipulatives: ○ Brainingcamp - counters, base ten blocks, number line, 100s chart, graphs, fractions, measurement ○ TheMathLearningCenter - ten frames, counters, time, number line, math rack, geoboards ○ SplatSquare-InteractiveHundredsChart ○ NumberLine - allows for multiple jumps to introduce open number line concept, decomposing numbers ○ virtual Rekenrek ○ Dreambox Teacher Tools	

○ Would You Rather...? (John Stevens) ○ Numberless Word Problems (Brian Bushart) ○ Number Talk Images (Tracey Zager & Pierre Tranche) ○ Daily Routines to Jumpstart Math Class (Curriculum Shared Drive) ○ Clothesline Math (Dan Kaufmann) ○ Math Spy (Dan Kaufmann) ○ Same or Different (Brian Bushart) ○ Same But Different (Sue Looney) ○ Splat (Steve Wyborney) ○ Open Middle (Robert Kaplinsky)		
Whole Group Instruction	**Differentiation: Teacher Table**	**Differentiation: Independent Practice/Small Group Center**
Assessments		
● Ready Unit Assessments ● Ready Lesson Quizzes ● Ready - Math In Action ● CFAs ● Exit Tickets	● Daily log of small group instruction ● Anecdotal Notes ● Grade Level Math Interview ● CFAs ● RCM Fluency Practice Pages ● RCM Prerequisite Lessons	Examples of accountability measures: Recording sheets, Fluency Practice Pages, exit tickets, rubrics, reflections, etc.

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	● RCM Tools for Instruction Lessons ● Exit Tickets ● Achieve the Core Coherence Map ● Illustrative Mathematics	
Whole Group Instruction	**Differentiation: Teacher Table**	**Differentiation: Independent Practice/Small Group Center**
Standards		
5.OA.A.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. 5.OA.A.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.* 5.OA.B.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the*	In addition to Whole Group Standards, you may choose to focus on grade level fluency standards or other priority standards listed below: ****Unit 5 Center Focuses:** **5.NBT.B.5** With accuracy and efficiency multiply multi-digit whole numbers using the standard algorithm. **5.NBT.B.6** Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays,	

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corresponding terms in the other sequence. Explain informally why this is so. 5.G.A.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate). 5.G.A.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.	and/or area models. **5.NBT.B.7** Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Unit 5 Math Pacing Guide

Topic: Lesson 30 - Evaluate, Write, and Interpret Expressions		
Student Learning Standard(s):	**5.OA.A.1**	-Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
	5.OA.A.2	-Write simple expressions that record calculations with numbers, and interpret numerical expressions

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		without evaluating them. *For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.*
Math Practices: (add 7 & 8 as needed)	• MP.1 Make sense of the problem and persevere in solving them. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.5 Use appropriate tools strategically. • MP.7 Look for and make use of structure.	• MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision.
Days: 4 4/16 - 4/29	**Focus**: (Additional Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		
Objective:	**We are learning to**: • Evaluate expressions containing grouping symbols. • Write numerical expressions containing grouping symbols. • Interpret numerical expressions without evaluating them.	
Essential Question(s):	Why do we need order in what we do? How do we translate verbal ideas to the language of mathematics?	

Core Resources	
Core Whole Group Resources	**Core Formative Assessment**

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Ready Classroom Math Lessons **Lesson 30** Session 1 - Try It and Connect It WB pgs Session 2 - Try It, Picture It, Model It, and Connect It WB pgs Session 3 - Try It, Picture It, Model It, and Connect It WB pgs Session 4 - Apply It Ques 1-5 Materials: base ten blocks, counters, number lines	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

Additional Leveled Resources

Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools **RCM** -Session 1 - Additional Practice WB pgs -Session 2 - Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 3 - Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 4 - Apply It Questions 6-10	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: Evaluate, Write, and Interpret Expressions -RCM Center Activities -RCM Enrichment Activities -RCM WB pgs listed under Additional Whole Group Resources **5.OA.1** - Howard County Tasks (Preferred Resources Tab) ● Group by Group ● Reasoning About Operations	-RCM Prerequisite Lessons -RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources - Georgia Framework - Expressions Unit - Illustrative Math Tasks: 5.OA.1 - Illustrative Math Tasks: 5.OA.2 - Exit Tickets ● Howard County (Assessment Tab) ○ 5.OA.1 ○ 5.OA.2

Virtual Math Manipulatives ●	- Howard County Printable Center Activities (Independent Work Tab) ● Race to the Target Number ● Expressions Clock ● Expresso ● Expresso Moderate ● Expresso Advanced **5.OA.2** - Howard County Tasks (Preferred Resources Tab) - Howard County Printable Center Activities (Independent Work Tab) ● Algebra Match Up ● Order of Operations ● Rewriting Equations with Parenthesis Unable to provide Direct Links to the Below Activities -K-5 Math Teaching Resources ● 5.OA.1 ○ Target Number Dash ○ Numerical Expressions Clock ● 5.OA.2 ○ Equivalent Expressions Match	
Vocabulary for Students		**Mentor Text List**

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Evaluate	Expression	Grouping Symbols	
Order of Operations	Algebraic Equation	Variable	

Topic: Lesson 31 - Understand the Coordinate Plane

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Student Learning Standard(s):	**5.G.A.1**	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).
Math Practices: (add 7 & 8 as needed)	• MP.1 Make sense of the problem and persevere in solving them. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.5 Use appropriate tools strategically.	• MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision.
Days: 3 4/30 - 5/2 5/5-5/9 ACCOUNTED FOR: EOY Universal Screening & State Testing Review	**Focus**: (Additional Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		
Objective:	**We are learning to**: • Recognize the coordinate plane as a two-dimensional space determined by the intersection of a horizontal and a vertical number line. • Identify the x- and y-coordinates of a point on the coordinate plane. • Plot a point on the coordinate plane given its x- and y-coordinates.	
Essential Question(s):	What makes a data representation useful?	

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Core Resources	
Core Whole Group Resources	**Core Formative Assessment**
Ready Classroom Math Lessons **Lesson 31** Session 1: Model It WB pgs Session 2: Model It and Connect It WB pgs Session 3: Apply It ques 1-3 Materials: coordinate grids	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

Additional Leveled Resources		
Activities and Additional Resources for Whole Group	**Differentiated Independent Activities/Center Ideas**	**Teacher Table Differentiated Resources**
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools **RCM** -Session 1: Additional Practice WB pgs -Session 2: Additional Practice WB pgs, Fluency and Skills WS -Session 3: Apply It ques 4-5	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: N/A -RCM Center Activities -RCM Enrichment Activities -RCM WB pgs listed under Additional Whole Group Resources - Howard County Tasks (Preferred Resources Tab) ● Intro to Coordinate Grids	-RCM Prerequisite Lessons -RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources - Georgia Framework - Illustrative Math Tasks - Exit Tickets ● Howard County (Assessment Tab)

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Virtual Math Manipulatives ● Interactive Coordinate Plane Tool ● Coordinate Plane ● Brainingcamp	● Where in the Zoo? - Howard County Printable Center Activities (Independent Work Tab) ● Coordinate Polygons ● Coordinate Grid Exchange ● Coordinate Grid Polygons ● Catch the Fly Unable to provide Direct Links to the Below Activities -K-5 Math Teaching Resources ● Coordinate Grid Geoboards ● Coordinate Grid Tangram ● Literature Link: The Fly on the Ceiling	

Vocabulary for Students				**Mentor Text List**
Coordinate plane/grid	Ordered Pair	Origin	Quadrant	
x-axis	x-coordinate	coordinates		
y-axis	y-coordinate	intervals/units		

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Topic: Lesson 32 - Represent Problems in the Coordinate Plane		
Student Learning Standard(s):	**5.G.A.2**	Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
Math Practices: (add 7 & 8 as needed)	• MP.1 Make sense of the problem and persevere in solving them. • MP.2 Reason abstractly and quantitatively. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.4 Model with Mathematics. • MP.5 Use appropriate tools strategically. • MP.6 Attend to precision. • MP.7 Look for and make use of structure. • MP.8 Look for and express regularity in repeated reasoning.	
Days: 4 5/12 - 5/15	**Focus**: (Additional Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		
Objective:	**We are learning to**: • Graph points in the coordinate plane to represent real-world and mathematical problems. • Find the horizontal and vertical distances between two points in the first quadrant and use these distances to solve problems. • Use graphs that show the relationships between two real-world quantities.	

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	• Interpret the coordinates of a point in the context of a real-world situation.
Essential Question(s):	What makes a data representation useful?

Core Resources	
Core Whole Group Resources	**Core Formative Assessment**
Ready Classroom Math Lessons **Lesson 32** Session 1 - Try It and Connect It WB pgs Session 2 - Try It, Model It, Picture It, and Connect It WB pgs Session 3 - Try It, Model It, PIcture It, and Connect It WB pgs Session 4 - Apply It Ques 1-3 Materials: coordinate plane grid paper, counters, rulers	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

Additional Leveled Resources		
Activities and Additional Resources for Whole Group	**Differentiated Independent Activities/Center Ideas**	**Teacher Table Differentiated Resources**
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: N/A -RCM Center Activities	-RCM Prerequisite Lessons -RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources

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RCM -Session 1 - Additional Practice WB pgs -Session 2 - Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 3 - Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 4 - Apply It Questions 4-8 Virtual Math Manipulatives ● Interactive Coordinate Plane Tool ● Coordinate Plane ● Brainingcamp	-RCM Enrichment Activities -RCM WB pgs listed under Additional Whole Group Resources - Howard County Tasks (Preferred Resources Tab) ● Family Pets ● Shoe Sizes ● Coordinate Games ● Snowfall Records - Howard County Printable Center Activities (Independent Work Tab) ● Area and Perimeter on a Coordinate Grid ● All Positive Coordinates Unable to provide Direct Links to the Below Activities -K-5 Math Teaching Resources ● How Many Equivalent Fractions? ● How Many Pages?	- Georgia Framework - Illustrative Math Tasks - Exit Tickets ● Howard County (Assessment Tab)

Vocabulary for Students			
Coordinate plane/grid	Ordered Pair	Origin	Quadrant
x-axis	x-coordinate	coordinates	
y-axis	y-coordinate	intervals/units	

Mentor Text List

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Topic: Lesson 33 - Analyze Patterns and Relationships		
Student Learning Standard(s):	**5.OA.B.3**	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.
Math Practices: (add 7 & 8 as needed)	• MP.1 Make sense of the problem and persevere in solving them. • MP.2 Reason abstractly and quantitatively. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.4 Model with Mathematics. • MP.5 Use appropriate tools strategically. • MP.6 Attend to precision. • MP.7 Look for and make use of structure. • MP.8 Look for and express regularity in repeated reasoning.	
Days: 4 5/16 - 5/21 5/27-5/28 iReady EOY Diagnostic	**Focus**: (Additional Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		

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Objective:	**We are learning to**: • Generate a numerical pattern given a rule. • Identify relationships between corresponding terms of two patterns. • Graph corresponding terms of two patterns as ordered pairs in the first quadrant of the coordinate plane.
Essential Question(s):	What makes a data representation useful?

Core Resources	
Core Whole Group Resources	**Core Formative Assessment**
Ready Classroom Math Lessons **Lesson 33** Session 1 - Try It and Connect It WB pgs Session 2 - Try It, Picture It, and Connect It WB pgs Session 3 - Try It, Model It, and Connect It WB pgs Session 4 - Apply It Ques 1-3 Materials: counters, base-ten blocks, grid paper	- RCM Lesson Quizzes - RCM Comprehension Checks - CFAs

Additional Leveled Resources		
Activities and Additional Resources for Whole Group	**Differentiated Independent Activities/Center Ideas**	**Teacher Table Differentiated Resources**
-Anchor Chart Links	-iReady Individual Path	-RCM Prerequisite Lessons

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-Number Sense Lessons/Resources -Interactive Tools **RCM** -Session 1 - Additional Practice WB pgs -Session 2 - Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 3 - Apply It WB and Additional Practice WB pgs, Fluency & Skills Practice WS -Session 4 - Apply It Questions 4-6 Virtual Math Manipulatives ● Brainingcamp	-iReady Teacher Assigned Lessons -RCM Interactive Practice: Analyze Patterns and Relationships -RCM Center Activities -RCM Enrichment Activities -RCM WB pgs listed under Additional Whole Group Resources - Howard County Tasks (Preferred Resources Tab) ● Ordered Pairs ● Carnival Plans ● Growing Penguins ● Number Patterns ● Cutting Lawns ● Shiloh's Height - Howard County Printable Center Activities (Independent Work Tab) ● It's Just Plane Subtraction ● It's Plane Addition ● Function Machine Unable to provide Direct Links to the Below Activities -K-5 Math Teaching Resources ● Patterns on the Coordinate Plane Task Cards	-RCM Tools for Instruction -RCM WB pgs listed under Additional Whole Group Resources - Georgia Framework - Illustrative Math Tasks - Exit Tickets ● Howard County (Assessment Tab)

Vocabulary for Students	Mentor Text List

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Corresponding terms Patterns Terms	

**Math In Action Lessons can be completed if time allows within the unit. They may also be used for differentiation for G&T students.*

Topic: Lesson - Math in Action		
Student Learning Standard(s):	**5.G.A.1** **5.G.A.2** **5.OA.A.1** **5.OA.A.2**	**5.G.A** Graph points on the coordinate plane to solve real-world and mathematical problems. **5.OA.A** Write and interpret numerical expressions.
Math Practices: (add 7 & 8 as needed)	• MP.1 Make sense of the problem and persevere in solving them. • MP.3 Construct viable arguments and critique the reasoning of others. • MP.5 Use appropriate tools strategically. • MP.2 Reason abstractly and quantitatively. • MP.4 Model with Mathematics. • MP.6 Attend to precision.	
Days: 1 5/22	**Focus**: Additional Content)	**Benchmarked Standard:** N **Fluency Standard**: N
Critical Knowledge & Skills		

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Objective:	**We are learning to**: Apply skills from the unit to solve real-world problems involving graphing points, drawing polygons, finding the perimeter and area of figures on a coordinate plane, and writing and evaluating expressions.
Essential Question(s):	Why do we need order in what we do? How do we translate verbal ideas to the language of mathematics? What makes a data representation useful?

Core Resources	
Core Whole Group Resources	**Core Formative Assessment**

Additional Leveled Resources		
Activities and Additional Resources for Whole Group	**Differentiated Independent Activities/Center Ideas**	**Teacher Table Differentiated Resources**
-Anchor Chart Links -Number Sense Lessons/Resources	-iReady Individual Path -iReady Teacher Assigned Lessons	-RCM Prerequisite Lessons -RCM Tools for Instruction

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-Interactive Tools Ready Classroom Math Lessons **Math In Action** ● Octagon Trap ● Rectangle Maze ● The Plunging Parallelogram ● Game Booklets	-RCM Interactive Practice: N/A -RCM Center Activities -RCM Enrichment Activities -RCM Unit WB pgs listed under Additional Whole Group Resources	-RCM Unit WB pgs listed under Additional Whole Group Resources -Unit Resources for Review

Vocabulary for Students	Mentor Text List
Unit vocabulary	

Computer Science (8.1) and Design Thinking (8.2)	
8.1.5.CS.3: Identify potential solutions for simple hardware and software problems using common troubleshooting strategies. 8.1.5.NI.1: Develop models that successfully transmit and receive information using both wired and wireless methods 8.1.5.NI.2: Describe physical and digital security measures for protecting sensitive personal information. 8.1.5.IC.1: Identify computing technologies that have impacted how individuals live and work and describe the factors that influenced the changes. 8.1.5.IC.2: Identify possible ways to improve the accessibility and	8.2.5.ITH.1: Explain how societal needs and wants influence the development and function of a product and a system. 8.2.5.ITH.2: Evaluate how well a new tool has met its intended purpose and identify any shortcomings it might have. 8.2.5.ITH.4: Describe a technology/tool that has made the way people live easier or has led to a new business or career. 8.2.5.NT.1: Troubleshoot a product that has stopped working and brainstorm ideas to correct the problem. 8.2.5.NT.2: Identify new technologies resulting from the demands, values, and interests of individuals, businesses, industries, and

usability of computing technologies to address the diverse needs and wants of users. 8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim. 8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.	societies. 8.2.5.ETW.1: Describe how resources such as material, energy, information, time, tools, people, and capital are used in products or systems. 8.2.5.ETW.2: Describe ways that various technologies are used to reduce improper use of resources. 8.2.5.ETW.3: Explain why human-designed systems, products, and environments need to be constantly monitored, maintained, and improved. 8.2.5.EC.1: Analyze how technology has contributed to or reduced inequities in local and global communities and determine its short- and long-term effects.

Preparation for College, Careers, and Beyond	
Career Ready Practices	**Personal Financial Literacy (9.1), Career Awareness, Exploration, and Preparation (9.2), Life Literacies and Key Skills (9.4)**
CRP1. Act as a responsible and contributing citizen and employee. CRP2. Apply appropriate academic and technical skills. CRP3. Attend to personal health and financial well-being. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies.	9.1.5.CR.1: Compare various ways to give back and relate them to your strengths, interests, and other personal factors 9.1.5.CP.1: Identify the advantages of maintaining a positive credit history 9.1.5.EG.1: Explain and give examples of what is meant by the term “tax.” 9.1.5.EG.2: Describe how tax monies are spent 9.1.5.EG.3: Explain the impact of the economic system on one’s personal financial goals. 9.1.5. EG.4: Describe how an individual’s financial decisions affect

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management. CRP10. Plan education and career paths aligned to personal goals. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.	society and contribute to the overall economy 9.1.5. EG.5: Identify sources of consumer protection and assistance. 9.1.5.FI.1: Identify various types of financial institutions and the services they offer including banks, credit unions, and credit card companies. 9.1.5.FP.1: Illustrate the impact of financial traits on financial decisions. 9.1.5.FP.2: Identify the elements of being a good steward of money. 9.1.5.FP.3: Analyze how spending choices and decision-making can result in positive or negative consequences. 9.1.5.FP.4: Explain the role of spending money and how it affects wellbeing and happiness (e.g., "happy money," experiences over things, donating to causes, anticipation, etc.). 9.1.5.FP.5: Illustrate how inaccurate information is disseminated through various external influencers including the media, advertisers/marketers, friends, educators, and family members. 9.1.5.PB.1: Develop a personal budget and explain how it reflects spending, saving, and charitable contributions. 9.1.5.PB.2: Describe choices consumers have with money (e.g., save, spend, donate). 9.1.5.RMI.1: Identify risks that individuals and households face. 9.1.5.RMI.2: Justify reasons to have insurance.

Personal Financial Literacy (Standard 9.1)	
Strand A	**Income and Careers**
Strand B	**Money Management**
Strand C	**Credit and Debt Management**
Strand D	**Planning, Saving, and Investing**
Strand E	**Becoming a Critical Consumer**
Strand F	**Civic and Financial Responsibility**

Strand G	**Insuring and Protecting**
Career Awareness, Exploration, and Preparation (Standard 9.2)	
Strand A	**Career Awareness (by end of Grade 4)**
Strand B	**Career Exploration (by end of Grade 8)**
Strand C	Career Preparation (by end of Grade 12)

Cross-Curricular Connections	
Interdisciplinary Connections	**Technology Integration and Literacy**
● Literature connections (math mentor texts identified in "Resources and Activities") ● Math journals ● Math word wall ● Literacy Connections & Activities Ready Classroom Math	Online links and possible resources for the integration of technology into lessons are embedded within the "Possible Resources and Activities" column for each Topic area.

Possible Modifications and Accommodations			
Special Education/504 Plans	**At-Risk**	**Gifted**	**English Language Learners**
**All teachers of students with special needs must review each student's IEP. Teachers must then select the appropriate modifications and/or accommodations necessary to enable the student to appropriately progress in the general curriculum.*	The possible list of modifications/accommodations identified for Special Education students can be utilized for At-Risk students. Teachers should utilize ongoing methods to	**Teachers should select the appropriate modifications and/or accommodations for Gifted and Talented according to the following suggestions.* Differentiating instruction based on: ● **Content:** *What* is taught or the material used	● Continue practicing vocabulary ● Demonstrate that vocabulary can have multiple meanings ● Encourage bilingual supports among students

Alloway Township School

Home of the Tigers

Amy Morley
Chief School Administrator

Kimberly Fleetwood
Business Administrator

Possible Modifications/Accommodations
● Number line on desk
● Extra time on timed calculation assessments
● Use of a calculator or chart of basic facts for computation
● Use of a graphic organizer to plan ways to solve math problems
● Use of concrete materials and objects (manipulatives)
● Opportunities for cooperative partner work
● Assign fewer problems at one time (e.g., assign only odds or evens)
● Basic computation – use counters
● Differentiated center-based small group instruction
● Fractions – use fraction blocks
● Provide a copy of mathematical equations, class notes, and examples for math notebooks
● Highlight or underline key words in word problems
● If a manipulative is used during instruction, allow its use on a test
● Place value – use place value blocks
● Provide graph paper for arrays
● Provide reteach pages if necessary
	provide instruction, assess student needs, and utilize modifications specific to the needs of individual students.
	
	Refer to the individual student Math Plan for **specific interventions.*
		● **Process:** *How* it is taught or support given or student grouping or environment
		● **Product:** What students produce
		
		To differentiate **content** consider:
		● Using different resources that have less explicit information (e.g., tiering assignments - consider what would make the content more complex to digest for gifted students)
		  ○ **For Example**: tiering problem solving scenarios making a gifted learner's scenario more complex
		  ○ **For Example**: gifted students could work on deriving the procedure for an abstract concept
		● Organizing ideas through graphic organizers
		● Using a learning contract (learning contracts are *individualized* and allow students to participate in designing their own learning which is motivating for gifted students)
		● Using jigsaws
		● Using orbital studies (differ from independent investigations and is meant as an extension of the topics covered in class into specific fields of study e.g., manufacturing)
		
		To differentiate the **process** consider:
		● How students are grouped
		● Tiering materials used (e.g., graphic organizers varying in complexity, types of questions asked - DOK level)
		  ○ **For Example**:
		  Below-Grade-Level Question: ●●●●●● **+ ? =** ●●●●●●●●●●
		  On-Grade-Level Question (Grade 1): 6 **+ ? =** 10
			● Provide visual cues, graphic representations, gestures, and pictures
			● Rephrase math problems when appropriate
			● Build knowledge from real-world examples
			● Provide manipulatives and symbols
			● Have students estimate each other's heights
			● Have students measure themselves and one another
			● Have students relate an object they know with a unit of measure
			● Encourage peer discussions regarding how students are thinking about math
			● RCM Unit Connect Language Development to Mathematics

● Provide several ways to solve a problem if possible ● Offer small and large graph paper options ● Provide visual aids and anchor charts ● Tiered lessons and assignments		*Above-Grade-Level Question*: Jon has 6 puppies. He wants to have 10 puppies. How many more puppies does he need to buy? To differentiate the **product** consider: ● Using a choice board (the difficulty of the activity should be noted for each choice and should be at least 3 levels) ● Using a menu of options (each item is assigned a point value and students select the route to take) ● Using open ended tasks (have more than one correct answer and/or more than one way to get to/explain an answer) o **For Example**: (Grade 2) Use the digits 0 to 9, at most one time each, to make a true statement. ⬜⬜ – ⬜⬜ = ⬜⬜ + ⬜⬜ (Open Middle Link) o **For Example:** (Grade 3) Using the digits 1 to 9 exactly one time each, place a digit in each box to make the sum as close to 1000 as possible. ⬜⬜⬜ + ⬜⬜⬜ + ⬜⬜⬜ (GeoGebra Link)	

Individualized Learning Opportunities
Possible independent study and online learning opportunities are embedded within the “Possible Resources and Activities” column for each Topic area. iReady