Grade 5 Mathematics – Unit 7: Coordinate Grids

Phoenixville Area School District

Stage 1 Desired Results

PA Core Standards:
CC.2.3.5.A.1 - Graph points in the first quadrant on the coordinate plane and interpret these points when solving real world and mathematical problems.

PSSA Assessment Anchors:
M05.C-G.1.1 - Identify parts of a coordinate grid and describe or interpret points given in an ordered pair.

Transfer

TRANSFER GOALS

Students will be able to independently use their learning to…

- Problem-Solving: Persistently apply various problem-solving strategies and organized approaches to accurately understand and solve problems.
- Mathematical Vocabulary: Interpret mathematical vocabulary and apply proper terminology to engage in meaningful oral and written expression that communicates mathematical thinking, problem-solving methods, and rationale.

Meaning

UNDERSTANDINGS

Students will understand that…

- Points, lines, and planes are the building blocks of geometry.
- Organizing/interpreting data helps us make inferences and draw conclusions.
- Various mathematical representations are useful for problem solving and communicating a solution.

ESSENTIAL QUESTIONS

Students will keep considering...

- How can models and graphs be used to share and understand information?
- How do we use data to make decisions?

Knowledge and Skills Acquisition

KNOWLEDGE

Students will know…

- Ordered pairs are comprised of an x-coordinate (first), and a y-coordinate (second) separated by a comma, enclosed in parentheses.
- A coordinate grid (quadrant 1) consists of an x and y axis, which meet at an origin (0,0).

SKILLS

Students will be skilled at…

- Identifying points on a coordinate grid using ordered pairs, in multiple choice format.
- Determining the distance between two points, in multiple choice format.
- Identifying which points fall within a specified figure on a coordinate grid, in multiple choice format.

	• Real-world problems can be solved by interpreting points plotted on a coordinate grid. • Data presented in a table can be used to create ordered pairs. • Coordinate grids can be used to solve real-world problems. VOCABULARY • Coordinate Grid • Origin • Ordered Pair • Coordinates • X-Axis • Y-Axis	• Interpreting coordinate grids to solve real-world problems by focusing on labels of x and y axes, in multiple-choice and open-ended situations.

Stage 2 – Evidence

Code A/M/T	Evaluative Criteria	Assessment Evidence	
A/M/T Acquisition Meaning Making Transfer	*What criteria will be used in each assessment to evaluate attainment of the desired results?*	PERFORMANCE TASK(S) *Students will demonstrate understanding (meaning-making and transfer) through complex performance by...* **Archeologist Site Map Performance Task** • *Goal:* Your task is to plot four points on a coordinate grid and determine the distances between the points. • *Role/Audience:* You are an archeologist who is creating a map for a fossil digging site. • *Situation/Product:* You will plot four points on a coordinate grid and determine the distances between certain points. • *Success Criteria:* You will have correctly plotted your four points and have the correct distances between the points that have been asked.	Differentiation Considerations: [Work on this section after completing Stages 1-2 of all units]

		<u>MIF Chapter 7 Performance Task</u> (Only #s 2-3 pertain to coordinate grids) • Workbook pages 116-117	
A/M/T Acquisition Meaning Making Transfer	*What criteria will be used in each assessment to evaluate attainment of the desired results?*	OTHER EVIDENCE **Math in Focus Chapter 7 Test (Use only portions relevant to coordinate grids)** • Multiple Choice • True/False • Matching • Constructed Response Prompts **<u>Canvas Quiz</u>** – Shared to commons • Search “5th grade MIF Ch. 7: Lesson 2, Coordinate Grid Quick Quiz”	Differentiation Considerations: [Work on this section after completing Stages 1-2 of all units]