Three Reads Note-catcher

What to Expect

This video will…

- Introduce the Math Language Routine (MLR) Three Reads
- Model Three Reads
- Offer a guide to the routine
- Connect to resources for future inquiry and practice

This video is most effective when…

- Paused at critical reflection points
- Paired with the guide and note-catcher
- Experienced with a coach or colleague
- Viewed multiple times as you grow

Apply

Use the space below to model the routine as you watch the video.

Purpose & First Read:
"Describe what the situation is about without using numbers."

Second Read:
"What can be counted or measured from the new information?"

Third Read:
"What combinations of turf and gravel meet the homeowner's constraints?"

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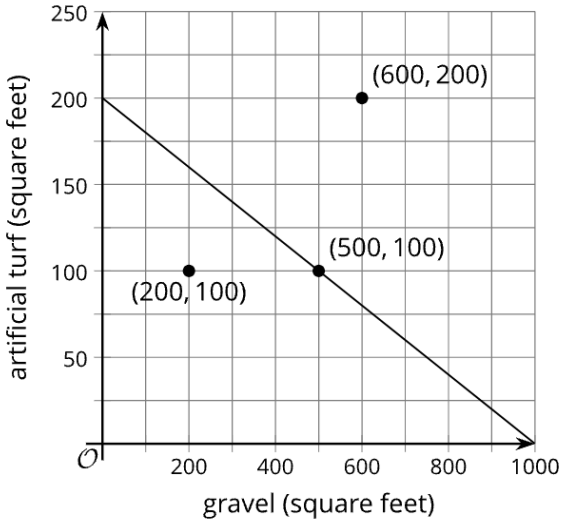
The Homeowner

The homeowner is worried about the work needed to maintain a grass lawn and flower beds, so she is now looking at some low-maintenance materials.

She is considering a combination of the materials shown to cover the year. Her budget is still $3,000.

- Artificial turf: $15 per square foot
- Gravel: $3 per square foot

Here is a graph representing some constraints in this situation.



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1. The graph shows a line going through (500, 100).

   a. In this situation, what does the point (500, 100) mean?
   b. Write an equation that the line represents.
   c. What do the solutions to the equation mean?

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2. The point (600, 200) is located to the right and above the line.

   a. Does that combination of turn and gravel meet the homeowner's constraints? Be prepared to show your reasoning.
   b. Choose another point in the same region (to the right and above the line). Check if the combination meet the homeowner's constraints.

3. The point (200, 100) is located to the left and below the line.

   a. Does that combination of turn and gravel meet the homeowner's constraints? Be prepared to show your reasoning.
   b. Choose another point in the same region (to the left and above the line). Check if the combination meet the homeowner's constraints.

4. Write an inequality that represents the constraints in this situation. Explain what the solutions mean and show the solution region on the graph.

Check Your Understanding

Summarize Three Reads as a series of four steps.

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During the routine, what are the teacher and students thinking about?

Teacher	Student

Three Reads

Supporting Sense-Making

Create opportunities for students to comprehend multiple dimensions of the task and scaffold how they make meaning of the mathematical context.

Maximizing Meta-Awareness

Facilitate opportunities for students to think about their own thinking and language use.

Check Your Understanding

Is the goal of Three Reads to solve a mathematical task?

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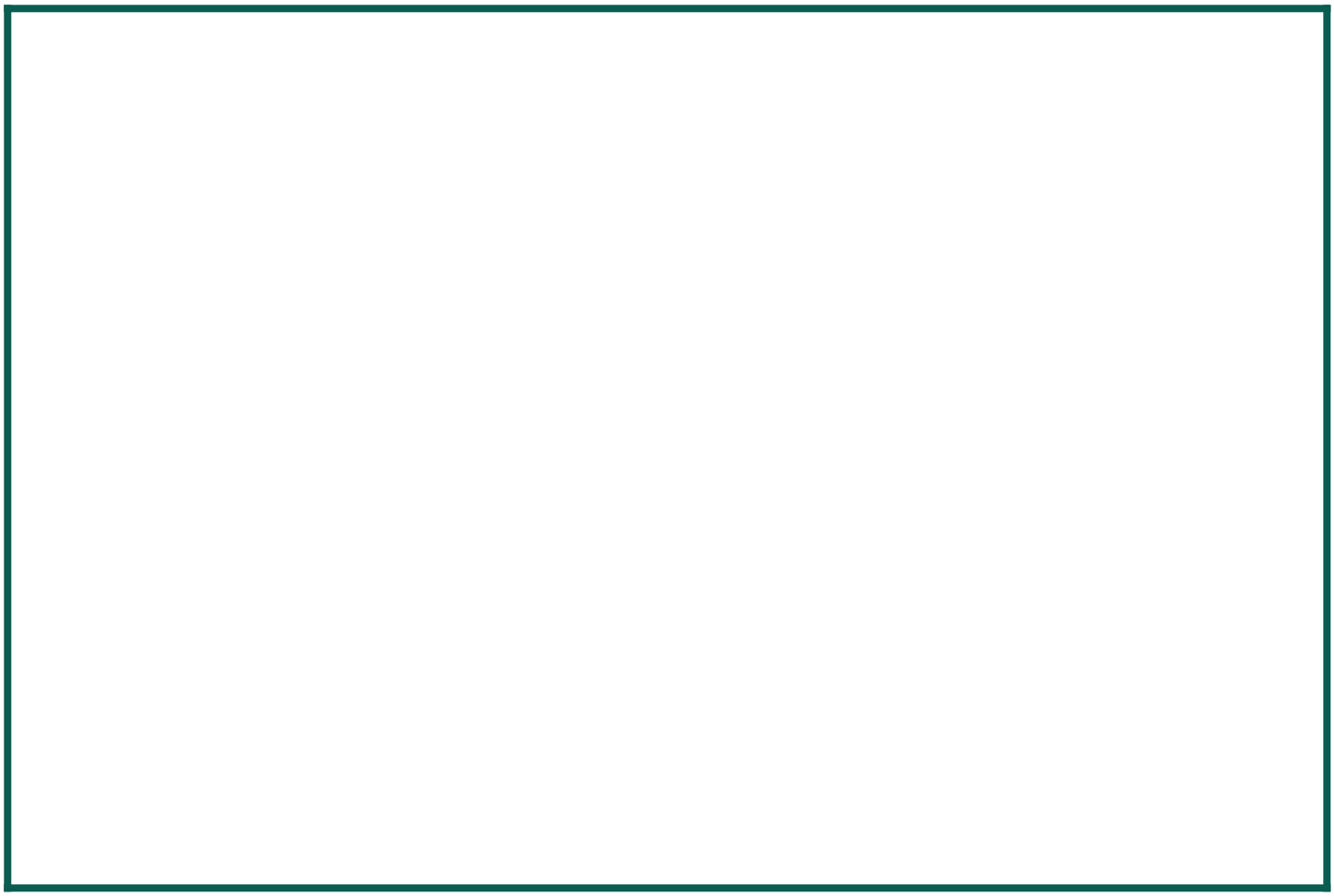

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Teaching Lab

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Plan

Three Reads Routine

Identify a RAISE task for the routine.

Plan to apply the routine.

Steps:

1. Reading Purpose
2. First Read
3. Second Read
4. Third Read

Optimize the routine.

Extend the routine.

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Teaching Lab

Three Reads Guide

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CRITERIA	PLAN	APPLY	OPTIMIZE	EXTEND
MATHEMATICAL LANGUAGE				
The teacher leads students to progress to the mathematical learning goal through mathematical language.	The teacher plans to identify a grade-level task worthy of developing sense-making and meta-awareness, describe how sense-making and meta-awareness contribute directly to the mathematical learning goal, and generate interest in using mathematical language.	The teacher leads students to use mathematical vocabulary required by the mathematical learning goal and make connections between mathematical vocabulary and the task context.	The teacher leads students to use mathematical vocabulary required by the mathematical learning goal and make connections between mathematical vocabulary and the task context; **AND** justify how their questions are mathematical.	The teacher leads students to use mathematical vocabulary required by the mathematical learning goal and make connections between mathematical vocabulary and the task context; **AND** justify how their questions are mathematical; **AND** increase the use of mathematical vocabulary throughout the lesson.
FOCI				
The teacher leads students to deeply understand a mathematical task through producing and analyzing questions.	The teacher plans a reading purpose for a grade-level task aligned to both the mathematical learning goal and a series of three distinct yet connected reading foci, and methods to generate interest in problem-comprehension as opposed to answer-getting.	The teacher leads students to understand the reading purpose and read a grade-level task through a series of three distinct yet connected reading foci.	The teacher leads students to understand the reading purpose and read a grade-level task through a series of three distinct yet connected reading foci; **AND** foci are differentiated by proficiency levels **OR** through visual aids.	The teacher leads students to understand the reading purpose and read a grade-level task through a series of three distinct yet connected reading foci; **AND** foci are differentiated by proficiency levels **AND** through visual aids.
COGNITION				
The teacher leads students to cognitive engagement through cultivated conversation and meta-awareness.	The teacher plans opportunities and supports for students to negotiate meaning through multiple means of engagement (e.g., individually, pairs, groups, whole class) and times to strengthen the "meta-" connections and distinctions between mathematical ideas, reasoning, and language.	The teacher leads students to create their own meaning of the grade-level task through multiple measures of engagement (e.g., individually, pairs, groups, whole class) and self-monitor their understanding by reflecting on their own and their peers' work.	The teacher leads students to create their own meaning of the grade-level task through multiple measures of engagement (e.g., individually, pairs, groups, whole class) and self-monitor their understanding by reflecting on their own and their peers' work; **AND** identify areas for improvement as well as develop strategies to address them.	The teacher leads students to create their own meaning of the grade-level task through multiple measures of engagement (e.g., individually, pairs, groups, whole class) and self-monitor their understanding by reflecting on their own and their peers' work; **AND** identify areas for improvement as well as develop strategies to address them **AND** deploy these strategies throughout the lesson.

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RICE