

# Just In Time - Accelerating Students Learning

# Problem of Practice

Students are completing a problem in class, and don't recall prior grade level learning needed to be able to complete the work.

# Discussion

## Our Problem of Practice is common

1. How do you know your students are struggling?
2. What determines if the prior concept needs to be mastered before new material?

# Addressing the Challenge

## Strategies to Consider

Having teachers teach grade-level material with “just-in-time” review is preferable to beginning the year by repeating material from the end of the prior grade.

- Evidence from secondary and postsecondary research suggests that building skills that students lack, at the time those skills become relevant for new material rather than through prerequisites, can improve the rate of student success in coursework and degree completion.
- In math, U.S. textbooks and instruction are already redundant, with a substantial amount of content retaught across multiple grades. Both curricula and classroom instruction in the U.S. also focus heavily on reviewing old material, even though policy documents have argued that students’ conceptual understanding would benefit if review time were reallocated toward developing new material in greater depth.

# Topic 1

Standard Disclosure– No Restrictions

# Lesson Goal

I can solve a System of Equations using elimination.

$$4x + 2y = 9$$

$$3x - 2y = 10$$

What are the prerequisite skills and/or knowledge needed to achieve the goal?

# Adjusting Instruction

I can solve a System of Equations using elimination.

How can you start a lesson to review the prerequisite knowledge and skills for success with grade level content?

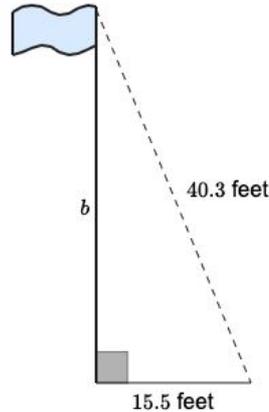
# Topic 2

Standard Disclosure– No Restrictions

# Lesson Goal

I can use the Pythagorean Theorem to find missing sides of right triangles.

A flagpole casts a shadow that is 15.5 feet long. The distance from the top of the flagpole to the end of its shadow is 40.3 feet. How tall is the flagpole?



Derivita, High School Geometry, 2022

What are the prerequisite skills and/or knowledge needed to achieve the goal?

# Adjusting Instruction

I can use the Pythagorean Theorem to find missing sides of right triangles.

How can you start a lesson to review the prerequisite knowledge and skills for success with grade level content?

# Topic 3

Standard Disclosure– No Restrictions

# Lesson Goal

I can use unit rate to write equations to model proportional relationships.

Nate bought 24 golf tees for \$18.00. Answer the following questions, given that each golf tee costs the same amount.

- a) How much would it cost to buy 48 golf tees?
- b) How much would it cost to buy 19 golf tees?

Derivita,, Grade 6 Math

What are the prerequisite skills and/or knowledge needed to achieve the goal?

# Adjusting Instruction

I can use unit rate to write equations to model proportional relationships.

How can you start a lesson to review the prerequisite knowledge and skills for success with grade level content?

# Summary of Process

- 1) Identify the prerequisite knowledge and skills.
- 2) Determine how you will evaluate if students have the knowledge and skills before the lesson.
- 3) Based on the data you collect, what are the instructional adjustments for the lesson?