Teaching Lab

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Compare & Connect Note-catcher

What to Expect

This video will…

- Introduce the Math Language Routine (MLR) Compare & Connect
- Model Compare & Connect
- 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.

Choosing an Appropriate Model

Here are measurements for the maximum height of a tennis ball after bouncing several times on a concrete surface.

n **Bounce number**	***h*** **Height (cm)**
0	150
1	80
2	43
3	20
4	11

1. Which is more appropriate for modeling the maximum height, *h*, in centimeters, of the tennis ball after *n* bounces: A linear function or an exponential function? Use data from the table to support your answer.

2. Regulations say that a tennis ball, dropped on concrete, should rebound to a height between 53% and 58% of the height from which it is dropped. Does the tennis ball here meet this requirement? Be prepared to show your reasoning.

3. Write an equation that models the bounce height *h* after *n* bounces for this tennis ball.

4. About how many bounces will it take before the rebound height of the tennis ball is less than 1 centimeter? Be prepared to show your reasoning.

Check Your Understanding

Summarize Compare & Connect as a series of four steps.

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

Teacher	Students

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Compare & Connect

Cultivating Conversation

Create opportunities for student-to-student interaction in multiple ways that scaffold how they make meaning of the mathematical context.

Optimizing Output

Facilitate opportunities for students to describe their mathematical thinking orally, visually, and in writing.

Check Your Understanding

Is the goal of Compare & Connect to solve a mathematical task?

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Plan

Compare & Connect Routine

Identify a RAISE task for the routine.

Plan to apply the routine.

Steps:

1. State Purpose
2. Create Displays
3. Compare Displays
4. Make Connections

Optimize the routine.

Extend the routine.