

# Instructional routines

## Classroom consistency frees up attention to focus on teaching and learning

Using instructional routines regularly creates consistency in the classroom, freeing up time for teachers so that they can attend to student thinking and communicate what is important in the class. Instead of focusing on the directions of an activity, students can focus on making sense of and communicating about the math.

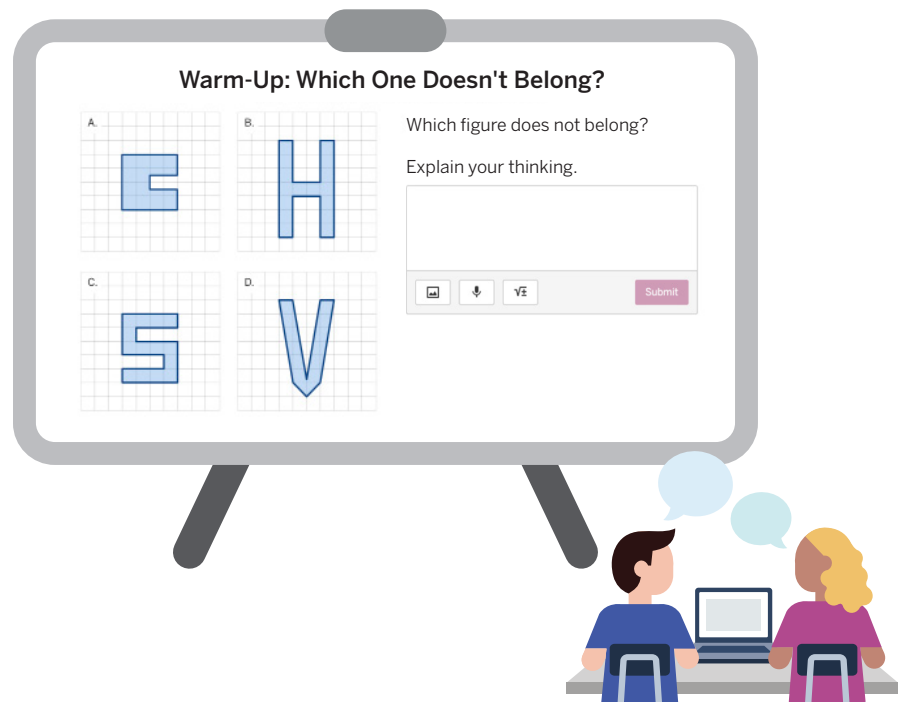
Each instructional routine included in an Amplify Desmos Math lesson creates opportunities for conversations and supports meaningful discussion. Implementing these routines can be a practical tool for establishing a classroom learning community that values student thinking.

At the beginning of the school year, teachers are supported in setting up a productive math learning community. Instructional routines and math language routines are extensively included in the first lessons of each school year, along with additional support and scaffolding for introducing and engaging in the routines.

Here are some examples:

- The Notice and Wonder routine encourages students to engage with content by observing and discussing what they notice and wonder about a new concept. This approach provides a low-pressure way for students to activate their knowledge.
- The Stronger and Clearer Each Time routine communicates the importance of feedback and creates an opportunity for students to learn from each other as they construct and refine their viable arguments.

Point-of-use facilitation guidance for instructional routines is always one click away in the digital platform. Teachers are encouraged to use this guidance as they establish and maintain their productive classroom communities.



## Instructional routines embedded in Amplify Desmos Math

Instructional routines can be found throughout each lesson in the Teacher Edition and digital Presentation Screens. Math Language Routines (MLRs) are used within lessons to highlight student-developed language and ideas, cultivate conversation, support mathematical sense-making, and promote meta-cognition. Here is a list of the instructional routines used in the Amplify Desmos Math curriculum:

- MLR5: Co-Craft Questions
- MLR2: Collect and Display
- MLR7: Compare and Connect
- MLR3: Critique, Correct, Clarify
- Decide and Defend
- Notice and Wonder
- Number Talk
- MLR1: Stronger and Clearer Each Time
- Tell a Story
- Think-Pair-Share
- MLR6: Three Reads
- Which One Doesn't Belong?

### 1 Launch

**1** To generate excitement, consider asking, "Do you think we can come up with five different ways to count these tiles?"

Use the **Number Talk routine** to support students' ability to think flexibly about visual patterns. Invite students to think independently, then to share their strategies aloud. Record each strategy, along with the name of the student who shared. (MP7)

To surface connections, record strategies in multiple representations (e.g., annotate an image with how they counted the pattern and include a corresponding expression, such as  $3(4) + 1$ ).

#### A Accessibility: Visual-Spatial Processing

To support students in interpreting visual representations, invite students to use the sketch tool or their Student Edition as they count tiles.

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### 3 Connect

**Math Identity and Community** Celebrate the variety and creativity in the different counting strategies and descriptions students shared.

#### Consider asking:

- "How are the strategies alike? How are they different?"  
*Responses vary. All of the strategies are ways of counting the number of tiles. Some strategies count each arm, some strategies count one arm and multiply the amount by 4. Each strategy has to account for the middle tile.*
- "Was there another student's strategy that you found helpful?"

**Key Takeaway:** There are many different ways to be correct in math class.

