

# Student-Led Math Show-and-Tell

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**Purpose:** To showcase real-world application of a mathematical concept

**Digital Tools Needed:**

- Live teaching platform
- Slide-sharing program (e.g., Google Slides)
- Digital photo device
- Interactive video recording program (e.g., Flipgrid)

**Student Technology Skills:**

- Participate in live chat
- Take and upload photos
- Create slide design
- Record video

**Difficulty Level:** Basic

**Teaching Method:**

- Synchronous
- Asynchronous
- Blended

**Process:**

1. After being introduced to a mathematical concept, have students find real-world examples of the concept.
2. Instruct students to take photos of those real-world examples or gather them from online sources.
3. Explain to students that they will create their own slide or video recording with their selected examples. This can be done independently or in small groups outside of live teaching.

4. During live teaching, have each student or small group share their examples and make connections by typing in the chat box. (Note: Young students and/or students with limited English proficiency will need additional time and instruction on keyboarding skills to effectively use the chat box. However, emojis are a great way of showing connections and students really enjoy them. Consider the following norms:

- 😊 **Happy face:** I connect with that
- 😍 **Heart eyes face:** I love that idea
- 🤔 **Thinking face:** I'm not sure I agree with that
- 🤯 **Mind blown face:** a-ha moment

*Image source: Iefym Turkin/iStock.com*

Take a look at how Ms. Rawding used the Show-and-Tell strategy in her third-grade classroom.

Ms. Rawding has been teaching online for only a week but learned to modify her Math Show-and-Tell lesson about 3-D shapes for her online class. She teaches a synchronous class for students who can log on during the live class time, and she also provides a recording and similar activity for students who attend asynchronously.

## Ms. Rawding: **Student-Led Math Show-and-Tell**

In previous years, when Ms. Rawding taught in a face-to-face setting, her students brought in examples of various 3-D solids. They presented their items to the class using a show-and-tell structure. This year, instead of students bringing in the examples of a cube, rectangular prism, cylinder, or sphere to her online class, she asked them to find examples in their homes and upload photos to an interactive slide.

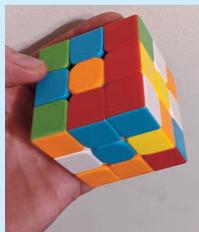
In the live class, students took turns showing their images, identifying the name of the 3-D solid and explaining why it was important. During the show-and-tell, students used the chat box to make connections through text and emojis. In this example, Marie was able to showcase her individuality, achievements, and hobbies all while using the academic vocabulary of cube, rectangular prism, cylinder, and sphere.

**Marie:** I picked a Rubik's Cube for a cube because I am learning how to do it. Now I can get a whole side the same color, but I can't get all the sides yet.

**Noelle (via chat):** That's so cool.

## ALL ABOUT Marie

CUBE



RECTANGULAR PRISM



CYLINDER



SPHERE



**Hawthorn (via chat):** Lol. I peel off the stickers.

**Marie:** For the rectangular prism I took a picture of my diorama of the Apachi. I won an award for the best history diorama last year in second grade.

**James (via chat):** I remember that.

**Marie:** The cylinder is actually a level, but you have to look at the yellow part. I'm really good at helping my family when we need to fix something in the house and this is a tool that I know how to use. The baseball is my sphere. I've played t-ball, coaches pitch, and now I play machine pitch.

**Jordan (via chat):** Me too. What color is your team?

**Taylor (via chat):** Me too.

In the asynchronous classes, students recorded a short video of each object, identifying the name of the 3-D solid and explaining why they chose it. The next day, after all videos were posted, students engaged further by completing a video response to one or multiple peers' videos.

When implementing the Math Show-and-Tell, Ms. Rawding was sure to give students a place to showcase their personality alongside the mathematics content. She engaged other students through chat and video response. Best of all, since the students' work was

digitized, Ms. Rawding used those images in lessons to check for understanding and make connections to individual students. By the end of the unit, Ms. Rawding's third graders knew the mathematical content of 3-D shapes, and a lot more about their peers' interests and hobbies.

This vignette showcased the strategy in third grade, but it can be applied across all grade levels whenever we want students to classify something or identify a real-world application in math. Secondary students could identify conic sections around them or the steepness of the slope of different roofs. Elementary suggestions include 2-D shapes, types of triangles, or arrays.