



## **How to Create Your Own Math Walk Stop**

We invite all educators and students to create their own math walk stops on their own campus and other favorite places. You can choose to use any video, audio, images, or text to include in the mobile app, or simply make your math walk a live, guided experience.

**To get started**, first visit our "[How to walkSTEM](#)" webpage, and read through the examples and information there to get some ideas of your own. Then watch our introductory "[What's My Question?](#)" video, which covers the sorts of questions that you might want to ask in the course of creating your math walk stop.

With that out of the way, you can now **select your stop** - that can be a specific location, building, structure, or artwork, or something else notable in the area. Make sure that the stop you select is relatively permanent! For example, avoid a piece of furniture that's likely to be moved, or a temporary art exhibition. If you need inspiration, you can browse through hundreds of stops at the [Our Videos](#) page of the MathFinder website. Use the filters on that page to explore the possible various places, math topics, and other themes that have been explored in math stops in the past..

Once you've selected a location for your stop, you can begin developing it using **Steps A - D** below:

### **A. NOTICE**

- Regardless of whether the space/object at this Math Walk stop is familiar or unfamiliar to you, get comfortable and spend some time *observing*
- Be open; try not to make assumptions about what you sense
- Try to record what you notice - you don't want to lose something that could be the basis for a great question!

### **B. BRAINSTORM QUESTIONS**

- What do you *wonder* based upon what you noticed?
- Make sure to base your questions on the *specific* site or object you are at as opposed to a generalized version of it
- Be open to varied questions
- No judgments
- Don't force connections to particular fields or disciplines and think broadly

Now that you've had a chance to brainstorm some questions of your own, take a look at some example questions that we've generated. Feel free to add on any additional questions that you'd like or are inspired by reading through these three math themes' lists. Try to vary the types of questions that you're asking!



## Question Starter List & Broad Math Themes



### → Estimation, Quantity, and Scale

- ◆ How can I estimate how many \_\_\_\_ (e.g. windows, bricks, etc.) there are?
- ◆ How can I estimate quantities, like the weight, length, speed, temperature, etc.?
- ◆ How can I scale up or scale down this measurement or amount?

Watch [this](#) short video in the What's My Question playlist with some examples about Estimation, Quantity, and Scale.



### → Mathematical Patterns

- ◆ What is the pattern of the relationship between two different things, like time and distance or size and speed?
- ◆ How does something (e.g. color, size, etc.) change over time or across space, and make a pattern?
- ◆ How often does something (such as a musical note, a color, or a position) repeat in a pattern?

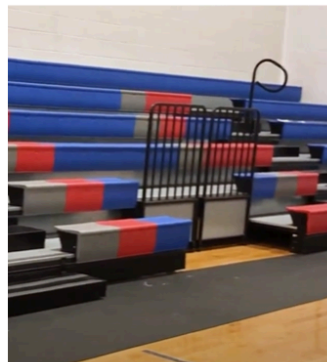
Watch [this](#) short video in the What's My Question playlist with some examples about Math Patterns:



### → Geometric Shapes

- ◆ Why does this \_\_ (e.g. lunar module, airplane, animal body, etc) have the shape it has? Is this shape useful or helpful?
- ◆ How can we estimate the area, volume, or surface area of \_\_\_\_ (e.g. airplane, wall, etc)?
- ◆ What patterns of geometry, like reflections, rotations, or growing bigger or smaller, can we see at or in \_\_\_\_ (e.g. this artwork, design, etc.)?

Watch [this](#) short video in the What's My Question playlist with some examples and Geometric Shapes.



**Please note:** Steps **A** & **B** form the **RAW MATERIAL** for your walk stop. Make sure that you're happy with the amount of raw material before you move on!

We see mathematics very broadly, and many of the things that are not traditionally part of 'school math' are still important and valid mathematical observations to make on math walks. We offer these themes just as a support to refer to as you wish, but please don't feel limited by them or take away that these themes define what mathematics is. If you feel like something could be 'mathematical,' it probably is!



## C. CURATE

- Select the questions that relate to mathematics in your mind. This is when you begin the process of “*mathematizing*” (to quote Dr Petrosino from the [MathFinder podcast](#), episode 2) your stop! This could be a question that relates to one or more of these themes: estimation; scale; quantity; shapes; predictable patterns of color, shapes, sounds, or positions; changes in position
- Rephrase the selected questions if you like, so they clearly connect to the math concept you are thinking about
- If you feel like you need to develop these ideas further or want more inspiration, simply repeat **STEP B**
- Then, select just one question relating to the place or object this stop is focused on. Make it a question that you find interesting and that you think others would too. Having the question be a little unexpected is always fun, too. Finally, make sure your question is based on what you noticed at this stop.

## D. RESPOND

- Respond to your selected question from **STEP C**
- **Note** - if you are interested in simply sharing the question (e.g. in your newsletter, your social media, a bulletin board, or a powerpoint presentation), you do not need to include a detailed response. Also, if you want to use these as discussion starters in your programming for children or families, again, you do not need to include your response. Simply, take a photo and annotate it by adding your question.
- Your response can be a strategy or a description of what you need to do
- Your response may also contain some new questions that come to mind as well as connections to other places, phenomena, and activities that could be done in other settings
- Your response can be included however you share your Math Walk stop content e.g. verbally, in a flyer, video, app-guided tour (audio or video!) using the [Otocast app](#), or other.
- If you're interested in having your tour stops accessible via mobile and web app, please refer [here](#) for more information
- If you want to make your own math walk video, you can use our free video templates [here](#)

