

# Informing Instruction, Engaging Students— Enhancing the Power of Exit Slips

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Promising practices...

As educators, we're constantly asked to add a little bit more to our plates, then more, and more. I can see how it might feel as if exit slips, a few quick questions used at the end of a lesson to assess student understanding, are just another thing to pile on top of everything else. However, in this article, I hope to make this essential tool of formative assessment accessible and show how easy exit slips are to make and implement and how powerfully they can guide our practice.

## Grounding Exit Slips Within a Unit

Whether you're working within a districtwide program, pacing guide, or units of study, you probably already have a pretty clear understanding of the way your year will flow. The AIM4S<sup>3™</sup> (*Achievement Inspired Mathematics for Scaffolding Student Success*) framework allows us to conceptually ground that unit-based thinking within our Compendiums. These Compendiums then provide the perfect jumping off point for exit slips because you've already mapped out the major concepts that students should grasp. As we build Compendiums, we organize them by concepts and relationships; the way we build exit slips is no different.

For example, when building a Compendium to teach the concepts of area and perimeter, we expect students to gain a solid understanding of the meaning of perimeter, the meaning of area, the formula used to calculate these, the relationship between the two, and their real world applications. If those are our

end goals, it would reason that those same five concepts are the areas that we need to assess for understanding throughout the unit.

An exit slip for this unit might look like the examples on page 5. You'll notice that the two questions assess not only the student's understanding, but

also the ability to apply the concept and calculate with accuracy. In question one, as students are asked to find the area, they are not given a specific strategy to use, providing an opportunity to see which of the strategies taught has resonated most, with which students are more successful, what still needs work, etc. This lets us see if a student is having issues with conceptual understanding or simply with computation.

The second question asks students to apply their conceptual understanding to create a model that can be used to find the dimensions of a rectangle using the given area. This question is powerful in that there are multiple solutions, and it asks students to think critically and apply their knowledge conceptually. The students' responses allow us to see quickly whether or not they truly understand the relationship between the dimensions of a shape and its area.

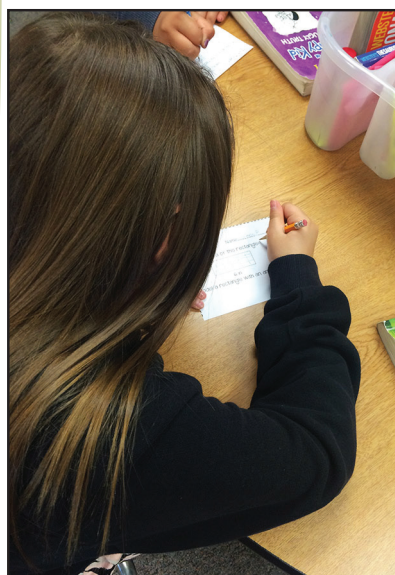
## Exit Slips to Inform Instruction

Given the curricular demands and expectations faced by students and teachers, there really isn't a minute to waste. Luckily, exit slips are an efficient and effective tool to help guide and tailor instruction to best meet our students' needs. Using exit slips, it may suddenly become clear that what we thought they got, they didn't—and that a concept we thought was still fuzzy is actually crystal clear for them. Now, we can use this information to drive our instruction as we tweak whole group lessons to reflect the exit slip data, to group students quickly and effectively for RTI and small group instruction, and to provide enrichment for students who demonstrate conceptual understanding.

In three quick minutes we can ensure that small group instruction is targeted to students' specific needs. We can see progress towards goals which align directly to our lesson, and we can reflect on our teaching. Exit slips are simple tools and yet they give us powerful information that can be used immediately. No longer are we waiting for a unit assessment, quarterly test, or end of year exam to show what students did or didn't get.

I use exit slips towards the end of the lesson. Students are given 2 to 3 minutes to complete the questions and are encouraged to leave it blank or draw a question mark if they absolutely don't know how to approach

—continued on page 5—





—continued from page 4—

the question. From there, it's simple for me to review the exit slips and separate them into three piles: students who wholly grasped the concepts, students who are almost there but lack specific pieces, and students who would benefit from a re-teaching of the concepts. In this way, I am able to differentiate my lessons in a way that is meaningful and effective for learners by targeting exactly what they have shown they need.

### Building Exit Slips With PowerPoint®

The thought of building exit slips to use throughout a unit can be daunting, but it doesn't need to be. One of the easiest and most straightforward programs in which to build a template is Microsoft PowerPoint®. PowerPoint® allows us to layer things on top of one another; create text boxes; include shapes, tools, arrows, lines, etc.; and save exit slips electronically so that we can tweak and change them from year to year without having to start over each time.

Begin by using the line function to break the page into multiple exit tickets, then add a title and name line. Next, add text boxes for each question, and then you might add pictures or shapes. Finally, you're ready to copy and paste so that each of the boxes contains all of the questions and figures. You might tweak the numbers so that students seated next to each other have different problems assessing the same skills. Then you're ready to hit print.

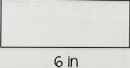
### Putting it all Together

Exit slips are a manageable routine that informs instruction so that we can tailor lessons and differentiate instruction to help students build conceptual understanding—while helping both students and teachers monitor progress. Before you know it, students will be asking for their exit slips as they realize that their performance and feedback guides their day-to-day work—and enhances their learning.

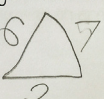
## Examples of Exit Slip Analysis

Exit Ticket  
Name: \_\_\_\_\_

Find the area of this rectangle:

4 in  6 in

Model a rectangle with an area of 15 in<sup>2</sup>.

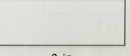


On the first question, this student answered “10 or 24”—he is unsure of how to calculate the area of a rectangle. He thinks he must either add the numbers together or multiply them to find the answer. On the second question, he draws a triangle with a perimeter of 15 in., rather than a rectangle with an area of 15 sq. in. He has not grasped the difference between these related concepts. He needs re-

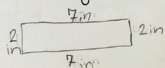
teaching on the concept of area, including examples and non-examples, through a small group chart talk and/or a one-on-one mini lesson.

Exit Ticket  
Name: \_\_\_\_\_

Find the area of this rectangle:

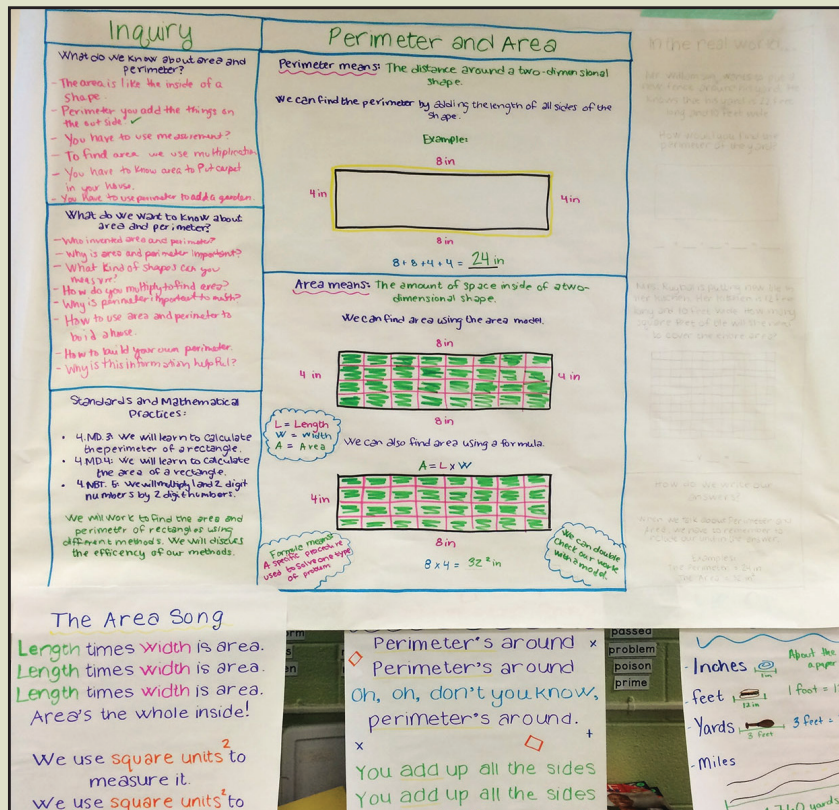
5 in  8 in

Model a rectangle with an area of 14 in<sup>2</sup>.



This student has a solid understanding of how to find area, even explaining how he came to his answer, noting that he “skip counted by five 8 times.” His model of a rectangle with the given area shows that he understands how the length and the width go together to create area. From here, I might provide extensions in the form of word problems of increasing

complexity, so that he can begin to apply the concepts in a way that is meaningful and helps to build a deeper understanding.



**Inquiry**

What do we know about area and perimeter?

- The area is like the inside of a shape.
- Perimeter you add the things on the outside.
- You have to use measurement.
- To find area, we use multiplication.
- You have to know area to put carpet in your house.
- You have to use perimeter to add a garden.

What do we want to know about area and perimeter?

- Why is area and perimeter important?
- What kind of shapes can you measure?
- How do you multiply to find area?
- Why is perimeter important to make?
- How to use area and perimeter to find a shape.
- How to build your own perimeter.
- Why is this information helpful?

**Standard's and Mathematical Practices:**

- 4.NF.3 We will learn to calculate the perimeter of a rectangle.
- 4.MD.5 We will learn to calculate the area of a rectangle.
- 4.NBT.5 We will multiply and divide numbers by 2 digit numbers.

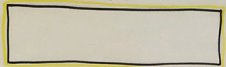
We will work to find the area and perimeter of rectangles using different methods. We will discuss the efficiency of our methods.

**Perimeter and Area**

**Perimeter means:** The distance around a two-dimensional shape.

We can find the perimeter by adding the length of all sides of the shape.


Examples:

8 in  
4 in  4 in

8 in  
8 x 4 = 32 in

**Area means:** The amount of space inside of a two-dimensional shape.

We can find area using the area model.

8 in  
4 in  4 in

8 in  
A = L x W  
8 x 4 = 32 in

**The Area Song**

Length times width is area.  
Length times width is area.  
Length times width is area.  
Area's the whole inside!

We use square units to measure it.  
We use square units to measure it.

**Perimeter's around**  
Perimeter's around  
Oh, oh, don't you know,  
perimeter's around.

You add up all the sides  
You add up all the sides

**Inches**  
feet  
Yards  
Miles

1 foot = 12 inches  
3 feet = 3 yards  
1 mile = 1,760 yards

Here is the Compendium that supported student learning and the development of exit slips during this unit. Additional information and processing were added as the unit progressed.