

# READING WRITING IN THE DISCIPLINES

## Using Gradual Release of Responsibility Video Transcript

**Karen Hohimer:**

All right, ladies and gentlemen, thank you. Eyes and ears, please. Let's go ahead and go over the warm-up. So, if we look at the first one, we have three sets of  $x + 6$ . And Horacio, what do you have?

**Horacio:**

I got  $3x + 18$ .

**Hohimer:**

Great, everybody agree? All right. Number two.

Today was a lesson about problem solving, but really getting them to read and reread and reread and reread and use annotating skills to help them solve the problems. Especially with middle schoolers, they want to rush through and they just grab numbers and start doing operations with them without thinking about what they're really doing and what it's asking for. So today was a gradual release lesson to get them to do more careful reading.

Okay, and what will make it a negative 64? Okay, so negative eight...

...It's something that I'm starting and we'll be doing after spring break. As far as your warm-up, think about our purpose in our wrap-up each day. For your participation points today, our topic is problem solving. We'll be using the BUCKS strategy that we've used before to help us create equations and solve them using our inverse operations and our algebraic steps.

They weren't ready yet for me to let them just go off and try and solve it. They need a lot more explicit instruction on how to do that.

I noticed a lot of you had the purpose already written down at the top, and then it had the B-U-C-K-S. So go ahead and write that in.

B stands for "Box the question." What is it that a problem is asking you to find? U is "Underline any important information that you'll need to solve the problem." C is to "Circle any vocabulary that might be needed or unknown." K is to "Knock

out any information that you don't need to solve the problem." And finally, S is "Solution." What does the solution represent? Does it make sense? Is it correct in the context of the problem?

For the first problem, I'm going to go ahead and think out loud how I would go about solving the problem, and using the BUCKS strategy. But I want to make sure that you are following along with what I'm doing. So as I think aloud and as I underline and circle and make annotations, I would like you to do the same.

I knew that I really wanted them to understand how to go step by step, read and reread, and rereading through. So, in the first problem that I had for them, I went ahead and modeled my thinking. So, I thought out loud what I think in my head when I'm solving a problem.

All right, so, number one, the length of each side of a square is increased by six inches. So the perimeter is now 36 inches. Write and solve an equation to find the original length of each side of the square. So you notice on this first one, I didn't even underline or circle anything yet? I just wanted to read through. So using our BUCKS strategy, my second read, I'm going to go ahead and box the main question. "Write and solve an equation to find the original length of each side of the square." So, you should have that boxed on yours, as well. I'm going to do the next part which is, "Underline the important information needed to solve the problem."

My whole point of that is for them to really hear what someone thinks about when they're solving a problem. Because a lot of times, they'll look at it and they'll go, "Oh, I can't do it."

And then it says, "Perimeter." So, I know perimeter. It's the distance all the way around the square.

The students actually hearing how you solve something is so important for them to be able to know how to approach a problem.

Now, if I'm going to write an equation, I know that I need to come up with a variable. So each side is going to be  $x$ . So now I think I have enough information to be able to write my equation if it's asking for perimeter. So, four sides of  $x + 6 = 36$ .

So that first one was all me thinking how I came up with the variable. I even drew some annotations on the side about squares and what we know about squares. So all these things, like, "What do I know about this problem?" Instead

of just giving up, we keep persevering. What are some things, what are clues that I can use to solve?

I have my solution. I checked it by putting it back in the original equation. And now I want to have my solution make sense in the context of the problem. So the original length of the square is three inches. All right, so this next one, we are going to do together.

For the next problem, I was still modeling, but I was also getting input from my students about what the next step should be. What does it look like when we name a variable? Things of that sort.

So, Joshua, what did you box?

**Joshua:**

How much she typically saved from each paycheck.

**Hohimer:**

Great. You guys agree? All right. Next read, underline important information needed to solve the problem.

Right now I'm being very explicit with them and really using that gradual release and teaching them. Our goal is that when they get to word problems, they won't need prompting from me. They'll be able to use that BUCKS strategy. They'll be able to box and underline and circle and knock out by reading and re-reading, and going through those steps on their own.

Maya, what did your table come up with for the variable?

**Maya:**

We didn't come up with one yet.

**Hohimer:**

Okay, so what is it that we're trying to find? We look at our box.

**Maya:**

How much she makes.

**Hohimer:**

Okay, how much she typically saved from each paycheck. So, should we have P for paycheck? Okay, now, at your tables right now, I want you guys to talk about, how can you set up an equation?

**Student:**

It says, "extra \$100 from her paycheck."

**Hohimer:**

So, when I am walking around the class and checking for understanding, I'm listening also to their conversations. Of course, listening for talk about math, but also, when they're talking about going back to those strategies. Well, "let's look at what we underlined," "let's look at the numbers," "what is our variable going to be?" And hearing them use those questions that I've used with them.

Our final one, this one has a chart. So, I'm going to release you a little more. At your table groups, you're going to work together using our BUCKS strategy. (students discussing)

Usually with the conversations going, I'm just going to listen and let it go, because if they're talking, most likely, they're going to get to what it is. It's when the conversation stops that I know they need some help.

You're going to follow those steps. So, go ahead. Box, right? Your next step is box? So your next read is going to be to do what?

**Student:**

To underline?

**Hohimer:**

Underline.

**Hohimer:**

Maybe they need help referring to what the next step is. Then I'll go in and use my questioning strategies. What do we need to do next? What do you have so far? What can you tell me about what you've found? So those kind of things to help them come up with how to solve the problem instead of me telling them. Because they've already heard me talk about it, so they really need to go and try and do more on their own.

So what's the next step after boxing? What do we do?

**Student:**

The important information.

**Hohimer:**

Underline, right, underline important information. So what do you think is important there?

**Student:**

The number of pounds the chocolates weigh and how many pounds he bought.

**Hohimer:**

Okay.

**Student:**

Wait, is it... chocolate and peanuts together, or just chocolate?

**Hohimer:**

Well, what does it say? She spent \$22.50 on peanuts and chocolates.

**Student:**

Oh, okay, okay, now I get it.

**Hohimer:**

Does that change things? Okay? All right, guys, keep talking, good job.

**Hohimer:**

Gradually, I release them to do more on their own. And there are times that when I was walking around, I thought, "Oh, some of these tables have it, some of them don't." So I had to grab them back in, go over some things, and then release them again to work on their own.

All right, so I saw some groups, you've got your circling, underlining, even knocked out raisins. And then it was the struggle time of how to write an equation, but what do you have to have before you can write your equation?

**Student:**

A variable.

**Hohimer:**

A variable, so make sure you define that variable. Thank you. Talk at your groups. You guys have been working really hard. I'm very impressed. Right now, I'd like you to write your summary of what we worked on today. And this is your ticket out the door, all right?

That whole summary at the end really ties up the learning, makes them think about what they did, and it's part of participation points. It's nice to have closure, to go back, to revisit the purpose, think about, what did we do?

Excellent work today. Good job. Just put the phone away next time. Thank you, thank you.