

TEKS Update Backward Design AIS-Instructional Services Zaragoza

Hi. Welcome to the Teks Resource System Backward Design Planning. We're going to be planning looking at grade five math, unit eight geometry and measurement. So big picture with planning. We're going to as the teacher look at our curriculum so we know what is part of this instructional focus document, or this unit that we're getting ready to plan for.

We're going to then because we're in a backward design look at the different ways we're going to be assessing our students for mastery of content as we go through the unit, as well as that summative assessment. And then we're going to be able to plan our instruction that's going to align both to our standards as well as our assessment making sure that during instruction we're giving our students the continent skills needed to be successful.

So I'm going to start off with looking at that math grade five. But really this process is aligned to all subject areas of math, science, and social studies. We'll look at ELAR at the very end of this video. So when you're thinking about planning in the Backward Design we're going to look at stage one.

Identify desired results. And we're going to ask ourselves as a teacher, what should the students know and be able to do after this unit? So looking at the content and the skills needed. Stage two is going through and looking at how we're going to assess our students. Asking ourselves, how will students demonstrate what they know and can do?

And then finally, stage three is when we take all of that information and we plan our learning experiences. What learning experiences are needed to equip students with the knowledge and skills? And how will students acquire and use the knowledge and skill?

So here is my instructional focus document for grade five, unit eight. And we can see here that the unit bundled standards around perimeter, area, volume, and converting within a measurement system customary and metric. And when you look and skip past the prior to this unit, and we look at it during this unit, and we read through here we're going to introduce the concept of volume as a three dimensional measure.

We're going to use objects and pictorial models. We are the first grade level where students are formally introduced to the formulas for volume. So I'm going to really make sure that I've given my kids that star grade five mathematics reference materials because they're going to use that on their assessment. And then I'm going to start extending previous knowledge of classifying two dimensional figures based on their presence or absence of parallel and perpendicular lines to formally classifying them into hierarchies of sets and subsets using graphic organizers based on those attributes and properties.

And then after this we'll worry about grade six. So what I've done here is I've started creating a list of items that I have read and notated. These are the things I'm going to be teaching or responsible for during this unit of instruction.

So I'm going to be looking at volume as 3D figures, volume cubic units, unit objects and pictorial models. And I made myself a little side note to remind myself that I'm the first grade level to formally introduce formulas for volume. They're going to be using formulas, solving problems classifying 2d figures, hierarchies of sets and subsets, graphic organizers, and they're going to be calculating conversions.

So there's my stage one. I kind of read through my instructional focus document and my unit overview. These are the items that I've captured. Stage two, we're going to look at the first of our two assessments. We're going to examine our performance assessments and be thinking about, what skills will students need to be successful at that performance assessment? And then thinking about, what assignments will students do in order to show mastery of the vocabulary, knowledge of the content, and proficiency with those skills?

So grade five, unit eight, PA number one, you can see where I have read through it and I've just highlighted some things that popped out to me. Such words as analyze, organize, and record. They want them to use precise, mathematical language to justify and explain. And you see these words over and over again, classify, creating of graphic organizer, hierarchy of sets and subsets based on attributes and properties.

And number two, we see attributes and properties that graphic organizer to display hierarchies of sets and subsets of triangles. And then over in number three, letter a, classify using the names of those given two dimensional figures, create a graphic organizer, hierarchy of sets and subsets, attributes and properties.

PA number two, I read through it and I highlighted again analyze so really it's important for our kids to be analyzing during my instruction, as well as when they get to their performance assessments. They're going to be organizing, recording, again, using precise mathematical language to justify and explain the solution process. So again, it's not only about the answer. It's about our kids being able to communicate how they're solving those problems.

And PA number three. This is where I need to make sure that when my kids are ready for PA number three that I've provided them with 375 inch cubes for each student because they're going to be analyzing a problem again, organizing, recording, continuing to use that precise mathematical language to justify and explain their solution processes.

So reading through my performance assessments I've added some things to my list of items as I'm trying to put this unit inside my head. Those hierarchies of sets and subsets are around attributes and properties. Graphic organizers. So I'm not going to be giving my students graphic organizers. Every single PA said that my students are to create.

So that's a skill set they're going to have to be able to do based on the instruction from the classroom. Then I added analyze, constantly organizing and recording their information because if that's at assessment expectation they're going to be doing that during instruction. I want them to use that precise mathematical language, and I want them to constantly be justifying and explaining whether it's orally or in writing.

Stage two continues to look at the summative assessment. So I went into the Assessment Creator and I built the actual multiple choice summative assessment for grade five, unit eight. And I'm asking myself, this is for me the teacher, does this examination provide further insights into what skills should be practiced during instruction and what content should be transferred to students?

So while I'm not going to show you every single question that's on that summative assessment I'm going to think aloud with you so you can see why I chose the questions I did for this video. So this particular question asked kids to, part a is to use each name and name those figures. And part b is asking them to use the figures in part a to create a diagram to classify the figures based on their attributes.

So over here on the right hand side in this yellow box, this shows me an example of what an answer might be. So when I saw this as a teacher I started asking myself, have I engaged my students with embedded compare and contrast with Venn diagrams inside other circles? And my answer is no.

So I'm certainly going to make sure that I embed this type of thinking and compare and contrast and in my instruction during the unit. Another question that I saw was this vertical hierarchy in vocabulary. So I see that triangle that's probably not going to be a problem for my kid, and this is how I usually teach hierarchy from top to bottom. But I'm certainly going to make sure that my kids know their vocabulary for triangles because that might be an area that would mess them up if they didn't know their vocabulary for this particular question.

This question there gives us some figures. They have to analyze what is and what is not a polygon. So I want to make sure that we had that conversation, what is a definition of polygon? How do you know what is and what is not? How can you graphically display that?

This particular question kind of threw me because when I'm thinking about hierarchy I always think top to bottom. And this is a hierarchy, but it's horizontal. So how many times did I show my kids not only the vertical, but the horizontal hierarchy with that vocabulary?

This might not be a problem for my gifted students or my high flyer kids or even at my grade level kids, but this might throw my kids just the graphic itself if I have not exposed it to my kids who might be struggling with math and how to represent it. So I want to make sure that I show hierarchy both vertically as well as horizontally to my kids.

This is another triangle hierarchy again. This should be fine. And this is that question that the first question kind of highlighted for me. Again, I need to make sure that if they're going to see this type of question on their assessment that they've had exposure to it, they've practiced it, they've created it during my instruction.

So stage two is really about I'm gathering information to make sure that what's happening in my classroom is given in the skill as well as the content needed to be successful. So now that I've gathered that information I'm at stage three. I now actually get to plan my learning experiences.

And truly the goal for this is that I create a series of sequence lessons designed to give students opportunities to construct meaning. That means they're doing the work because if they're constructing the meaning it will be easier for them to apply and transfer that. And I'm responsible for that feedback.

What's going well for them? Where are they struggling? How can I put them back on the road to mastery of content? Because all of that in order for them to gain understanding are they identify learning outcomes.

So big picture. When you're looking at planning with the instructional focus document for second grade through high school, our summative assessment is that multiple choice summative assessment that you create in the Assessment Creator. For math, science, and social studies, your performance assessments actually will guide your planning.

I'm going to look at the first performance assessment on my IFD and I'm going to then back up my lessons of my activities to align with the process and content skills and student expectations identified for that performance assessment. I plan those days. And then I give that first performance assessment as proof that what's been happening in my classroom is getting my kids to mastery of that content, which will lead to that summative assessment.

If I have a second performance assessment on that instructional focus document I look at those process and content standards, I align my instruction to that skill and that content, I plan for those activities, I then give them the performance assessment again as proof of mastery of content leading me to my summative assessment. And if applicable as it is in this grade five, unit eight, there's a third performance assessment.

I look through and I analyze the standards that are tied to that performance assessment, I back up and align my lessons to get my kids that skill and that content, I give my performance assessment as proof that they have gained mastery, and then I give my summative assessment on the 16th day so that they can see that content in that summative multiple choice context as they will on the state assessment.

So again, this is what I call a chunk and a chew, or I'm going to give them a piece and I'm going to let them process it with the PA. So this is a lesson plan that I'm going to let them process with a performance assessment. I'm going to create another lesson plan for this unit and I'm going to give them an opportunity to show me they understand content and so forth.

Science, social studies, and math. This is your big picture. ELAR, we're a little different. You're going to go through and look at all of your performance assessments at once because you have word performance assessments, you have reading performance assessments, as well as writing.

So when we plan for ELAR, it's more of a helicopter view once we understand where our stop and check for mastery is. Then we're going plan lesson activities for that unit as a whole integrating our word work, our reading, and our writing, and then give students their performance assessments as you have data indicating they have mastered the content and skill needed for the formative assessments.

So it's not as lockstep or as easy to plan for ELAR because I need to make sure I keep that big helicopter view of integrating those three areas of ELAR dropping the PA when they're ready. And then I can give my summative assessment, which is that multiple choice standardized type of test.

Now just a reminder, when we talk about summative unit assessments I'm talking about second grade through high school. For kindergarten and first grade your performance assessments serve as both your formative and your summative assessment. Thank you for taking time to watch this Teks Resource System Backward Design.