

10th Math Sum Angles Materials Interview

Interviewer: Please describe the instructional materials that you're using for this lesson.

Teacher: The way I teach, the way I create lessons nowadays, and I've kind of built this process up over many years, is I just have my slide deck. That is my lesson. I have the starting slide, which is the dash, that's what I show the kids. That's a reminder to me, as sort of my title you put in your notebook or something. It tells me the date, it tells me the what homework is assigned, it tells me a little agenda of what I'm going to do, and then I make up some bell work to get the kids doing something. That's sort of my cover, my title card. It helps the kids, it helps me.

Then I'll just put together the lesson below that. For me, that's slides. Mostly there are slides for the kids, sometimes I will insert things that are reminders to me. I try to do these sort of, you can write little notes to yourself under these slides. That never really worked, because I never look at them. This is what I've discovered as a teacher, working, planning things, is the thing you're going to reference, the thing you're going to use when you teach, has to be something that's quick, has to be something that's easily accessible. It can't be ten other things. I've tried this, where I'm like, "All right, I've got my notebook, got my lesson plan in there. I've got my handout. I've got this over here. I've got this piece of paper I'm going to put under the-" Then I lose it by the second lesson, and I can't teach anymore. I keep everything digitally.

[00:02:00] For this lesson, I will have some notes from the book. I have a way of, I have the PDF of the textbook, and I just cut out the pieces that I am going to reference. I'll just throw them in a slide. I can write on top of the slide. If I need to do a more in depth sort of diagram or filling stuff out, I have an app that can just read the PDF and I'll just show the whole PDF, so we can see the page number and stuff like that. Then I have inserted a couple different things. I have some notes, some things that the kids are going to copy into their books. I have some animations of polygons being moved around, their angles changing but their sums staying the same. I have that real world example, a picture of a bench that the kids are going to calculate off of. I try to bring in media as much as possible because I have this projector, and an iPad, and things I can generate. I try to make that a little more engaging by bringing in animations, or media, or pictures, stuff like that.

Sometimes, we'll see for this one, but sometimes the simplest thing- you have some boring lesson, you have some, "All right, we've got to find this pole vaulter is training and every month she gets one inch better," and it's like, "Ugh, this lesson." I'll just get a picture of a pole vaulter. Pole vaulting is awesome, so you just get this cool picture or maybe just show them some stupid video that has nothing to do with the math, but it just grabs them. "Oh, this is what we're doing." Then you can get on to the actual computation, which literally has nothing to do with the pole vaulters. That's just the example we came up with.

Then I usually do an exit pass at the end, again to check for understanding. Some days

that works, it depends on the time. That's the sort of slide deck lesson part. The other content that I will use, we have our text book, which is sort of not even a textbook, it's like a workbook almost. There's a couple things in there, the homework's in there, but just the activity in the beginning is in there. The actual work is going to be a handout that I had created, that has more of the things that I think are important.

The homework in the textbook is, "Here's a hexagon, label the bunch of different angles, find the missing angle." I'm like, "All right, we got that. But what about different shapes. What about a regular hexagon? What about two hexagons stuck together?" I've added some additional content into my handout, and that's going to be the classwork or the group work that we do after we're done with the book, and before the exit pass. That's the main content that I'll be using.

Interviewer: Why did you choose these materials?

Teacher: [00:04:00] The slides are my just generic template, that's how I do all of my organization, so that's the easiest method for me. I know for many teachers, and I've trained people on kind of using these things, many teachers it would take them eight hours to make a weeks worth of slides, but I've been doing it for so many years it's something that is comfortable for me. It is faster for me to do that than to write into a book. It keeps things organized, and of course you get the advantages of digital. They are everywhere. They're backed up, I can never lose them. I could smash this iPad and use my phone air playing to my thing, and it would still work. I couldn't write on it, but it would work. I always have a back up. And, of course, you get animations, you get rich media, you get pictures, you get stuff you can actually show the kids. That's the main thing.

I always try to make some sort of handout or some sort of thing because I always end up not liking whatever the actual content is. It's not right, or there's something that's just not precise about it, or it takes up too much room, or it's not enough room. There's always something that I don't like, so I generally end up making a little half sheet, or just a problem on the board.

I taught summer school for many years, and we didn't have handouts. I couldn't make hobbies. It was just annoying. I would just make the handout on the overhead, "All right, copy it." It saved paper and it was sort of exactly the thing that I wanted to teach. That's kind of my process for doing all my lessons, and of course including this one.

Interviewer: What is it that you like about this material?

Teacher: Same thing we just talked about. The digital, the power that making content digitally gives you is essential. I feel like, and I've done this, I've taught without. I've taught on a chalk board. My first year of teaching, it was literally a chalk board and we had one of those transparency things, I don't know how I survived. Being able to teach using these digital tools, it makes it so much easier.

I am so much more organized. My calendar is digital, I can change it in a second. I can

[00:06:00] share it with my co-teacher. I can post my slides to my website so the kids can get notes if they're absent. I don't have to give them a book or photocopy something. I remember I used to do that, I would photocopy the notes and hand- oh my God. So much. Just the flexibility and the power that digital things gives you.

I've done things where I made a handout, I gave it to period one, shoot, question three too hard, didn't work. I need to give them more information. During period one, I go back to my computer, I change that, make some copies, print it out, and period three, the next period, they have a completely different handout. Same thing for slides. I can tweak the problem, I can make two different versions of it for a different class. I can change it in between classes, or add something. It's just way more flexibility than what I did before, which is writing on some piece of paper or whatever. That's the main reason I prefer digital. I invested my own money and time into learning these topics, so it's helped.

Interviewer: Are there any changes that you've made to these materials?

Teacher: Most of the materials I've created from scratch, so yes I've changed them all. Some of the stuff out of the book. Again, I have changed sort of the way I'm presenting it. In the book- I'm trying to think exactly- but it like repeats itself. Because it's the first one is, "Draw the polygons and measure them. And do all of them." I'm like, "Well, that's going to take a half hour." That's half my class. I can't do that. I'm going to break that up and give a kid two of them, give another kid two of them. Then we'll come together and bring them all together at the end. And I'm going to skip the second one. Then we're just going to do the triangle. We're kind of modifying the book to fit the time and the class a little bit better. Then my own content, I changed that yesterday. I will change it up until I have to make copies and then maybe afterwards too, but as much as needed.

Interviewer: Finally, how would you describe these materials as meaningful or relevant to students lives?

[00:08:00]

Teacher: Again, it depends on the student, depends on their life. There are certain things in the book that we try to make relevant, or try to make more fun or interesting, and we'll see if it shows up again, but you'll hear them groan. We're doing the metaphor, the main metaphor that we used in this book was Grandma.

So Grandma has, she's retired, she's building a house, she's building a radio tower, she's building a pool, she's doing everything. Grandma's crazy. The kids always groan, because it's like, "Oh, come on Grandma, enough." Like, "Retire already." But we try to, that's what's trying to bring them into, "All right, this is a real thing. There is a person who is helping their relative, or themselves to build this thing, or build this house, or buy this flooring, or whatever it is." We will try to make the content at some point relate to the real world, even if it's not the kids real world, it's someone's real world. We try to do that.

I showed the bench example that I came up with. Just you're doing some carpentry, you're building a bench. How would you find this angle? This is a real thing that someone would need to do. Sometimes it's appropriate, sometimes it's not, but it kind of depends on which lesson and how far you want to take it.

Interviewer: Awesome.