

The Teacher To Teacher Initiative was created by the US Department of Education to provide the latest strategies and research on educational practices that work inside a classroom. My name is Jody Guarino and I am a teacher at Capistrano Unified in California. Certainly, if I have taught it and they've got it, I want them to be able to convey that when they are getting to a test question. This series features teachers from across the country presenting techniques that can be used with students of all ages. It's just one way the Department of Education is helping teachers get the support they need so that no child is left behind.

(MUSIC)

My name is Jody Guarino and I am a teacher at Capistrano Unified in California and this year I've been so lucky I teach K-1 Combination class, which I'm actually very excited about. And all of the things that I'm going to share with you today are not something that I came up, but something that my school sight and grade level team have come up with. And we've created a model to differentiate to meet the needs of our learners. And we've kind of looked at our math instruction and thought okay, we're doing a great job, but we're not doing as well as we could be doing. And our goal in doing this is to meet the needs of each and every one of our math learners and so this is kind of the model that we've come up with. It's certainly not the end-all, be-all, and it's changing and getting better every day and every time that we collaborate. So, what I'm going to share with you today is what we've come with as a collaborative grade-level team and a school. So, we're going to start with talking about what is differentiation and kind of setting the stage for the whole idea of why we're here and what differentiation is. We're going to look at some of the key components of teaching our kids math, looking at the standards, assessment, analyzing our data, and then planning, and then we're going to talk about some follow-up activities available for you on-line. I'm going to start with what is differentiation. Who's got some background knowledge for that? And I'm going to chart what we know about differentiation. What is it? Okay, meeting the individual needs of our students. What else? Working from where students are now. Using different strategies for different students. Alternative assessment. Varied depth of learning. There are three articles that were all written by Carol Ann Tomlinson on differentiation. The first

one is “What Is A Differentiated Classroom”, the second one is “The Rationale for Differentiated Instruction in Mixed Ability Classrooms”, and the third one is “Reconcilable Differences – Standards-Based Teaching in Differentiation.” And I’m going to give you about 10 minutes to read one of the articles, or part of one of the articles if there’s not enough time. And then we’re going to revisit what we know about differentiation and see if we can add to that. I’m going to go ahead and continue now. What else can we add to our chart? What else is differentiation? What else do we know about it? Really knowing your students. Adapting to their interests. Attending to similarities and differences. Engaging everyone. Okay, process with risk and reward. One thing that article said that I found really interesting was it said the standards are what we teach, and differentiation is how we teach it. Because certainly we’ve got our standards, because we need something to guide our instruction, and some goals for our students. But then we need to think of how are we going to do that. Because we have all these different learners with different interests, different needs, they’re coming to us at different levels, and we need to be able to teach them at their own level of what they need. I found there were a lot of great examples in this book, and as a primary teacher it was really exciting to see all of the different examples for middle schools and high schools. I don’t know about you, like I think “Oh, I differentiate so well.” And the more I read these articles; I’ve so much further to go. For example, in the first article they were talking about a teacher with compound words, and she had centers, and there were a variety of teachers in this article, but one of them – oh, they’re all going to centers, but it’s just a different day, but that was differentiation. And then when you read through all the examples, it’s just amazing to think what different teachers are doing. Anyway, the more I read the articles, the more I get excited, and the more I realize I have lot more work to do. When I think of differentiation, and differentiated instructed, I think of being pro-active. Before I even begin a lesson I know that it’s going to be just right for some kids; that it’s going to be too easy for some kids, and too difficult for some kids. So I approach my planning with that in mind. I’m not going to be surprised – oh, some of them didn’t get it, or it was way too easy. Walking into my planning, before I do anything, I already know – okay, how am I

going to adjust this for the kids that aren't ready for it, and how am I going to extend it for the kids that are already past that? I also think of differentiated instruction as more qualitative than quantitative. I don't know about you, but when I was in school it was – wow, you do it so well; you do all the problems on the page. And you don't really get it, so just do the first two. But, we all did the same thing – it was all about the quantity. And that's how it was differentiated. But now when we think of it I think of more of the quality – what are they doing? It's not just more or less; maybe they're doing something different, at different levels, maybe things that are more of their interest, using their learning modalities. It's aimed at offering multiple approaches to content, process and product. We talked a little bit about that up there. It's also student-centered. We're looking at our students – starting with them. Do they have background knowledge for that? Do they have the skills that are necessary? Starting with where the students are – not necessarily on page one just because it's page one. It's also differentiated instruction is a blend of grouping. Sometimes we do whole groups, sometimes small group, and sometimes individualized instruction. Now I'm going to tell you a little bit how we kind of came about all of this and where I used to be and where I'm growing to become. So I used to teach. I would get out my either my lesson plan guide or my book and I would just teach whatever it was – whatever concept – I would just teach, teach, teach. And then I would test my students, and then I might pull my hair out, because I taught it, but they didn't get it. But I taught it so much – I taught it for four weeks – and they didn't get it. It must have been a bad test! Certainly if it was worded different my students would have gotten it. Or, if the problems were horizontal instead of vertical they would have gotten it. It was the test – it wasn't me! I taught it, I did you know four weeks – I blamed the test. I have no ownership – I pulled it out of the book – they couldn't do it – I blame it. So maybe I'll stay put. Well, I did it for four weeks, but they didn't get it, so maybe I'll just do it for four more weeks. And I'll just do more of the same. I did it, but let me just do it again, do it more. Or, I move on and think – well, I don't really have enough time for that, and, oh, well, they didn't get it – maybe they'll get it next year. And I move on, leaving children behind. It's just kind of the evolution of where I'm coming from, and where I am

now. Now I plan. I'm not surprised. I walk in my classroom every day thinking – some of them are going to get it, some of them aren't, and I know that before I even present the lesson. So, I've already walked in with a plan of how I'm going to differentiate for my students. One way that I've done this is I've mapped out the content using the standards. What is my goal? Where am I going with them? I develop assessments based on my map. And guess what? I can't blame it anymore, because I made it. I can't pull my hair out if they're not doing it, because that tells me I'm doing something wrong. Because I've made it and they're not getting it? So I have ownership, because I've created assessments. Now before I even do this I pre-test my students, so I'm starting with them. Do they already know it? Are they missing a whole lot of skills? Where do I need to focus my instruction? I've got my map of what I want to teach – how am I going to best use my time? So first I plan, then I differentiate. I don't want to do that after the fact – I want to differentiate it as I begin with the unit, and then I post-test. I want to figure out, okay, I've done all the stuff – do they get it? Because I don't want to move on if not all my students have mastered it. I still want to move on, but I still want to make sure that they master it, so maybe we need some intervention. Standards – the standards are what guide my instruction. So, the first thing I do is I look at the standards for my state. And all of the examples that I'm going to share with you today are from kindergarten in California. Now, all of these things that we're using, we've actually adapted from high schools. Our example started with a high school, so all of this can be done at any grade level. We do it at our site K-5, but the things I have to show for you today are kindergarten and 1st grade, because that's what I teach. So, I started off with looking at my kindergarten standards in the state of California. I've got a whole lot of stuff to teach here. And we look at what fits together? What makes sense? One example I'm going to share with you – right now I'm teaching in K-1, and 1st grade greater than, less than. Does anybody have an idea where that comes in your math book, what unit, or what chapter? Mine happens to come under place value, which I'm looking at my 1st grade kids thinking, okay, place value might be a struggle in itself. This might take a lot of instruction. It might be I think it's going to be a difficult concept. Now they're dealing with higher numbers –

understanding that – and now we’re going to throw in greater than, less than. So, for me, and what I mean “me”, I don’t mean myself as one person – I’m talking about my grade-level-team. So, we looked at greater than, less than, and thought – gosh, it’s going to be great there, but when can we introduce it? Maybe we could do it at the beginning of the year when we’re working with small numbers. They understand the numbers, so the numbers aren’t new, and those concept of numbers, but the less than, greater than is new. So, that by the time we get to that place-value unit, the place-value is going to be new – not the greater than, less than. So, we’re not introducing two new things at a time. By that point they will have mastered it, and now they’re applying it. Does that make sense? So what we’ve done is we’ve taken our standards and put them in ways that make sense to us – grouping standards that would work well together - for example, sorting. In kindergarten one of our standards is about sorting. And, gosh, if they’re sorting things, wouldn’t it be great to talk about quantities – this group has more, this group has less, because it easily works together. So, what we’ve done is we’ve taken apart the standards and we just literally got the scissors and cut them apart – and then we created curriculum maps. And now we have the October curriculum map for kindergarten and those things – that’s my goal. For the month of October that’s what I want to teach my kids. Now this document is changing all the time. Because, gosh, come to the end of October when I post-test them – maybe they didn’t get something there. And maybe a lot of them didn’t – so now I would move that to November. So, it’s a completely fluid document, but it helps me guide my instruction, rather than looking at the standards as this whole huge page – now I’m breaking it apart to things that make sense, and are meaningful to me. Now, we’ve talked about starting with our students. Well, how do you know where our students are? And that’s through assessment. We want to inform our teaching as a communication tool to inform students, parents, teachers, counties, all that. I know sometimes we assess because we have to. Our state says here’s our test, and we give it, we unpack it from our bags. I’m going to talk about informal assessment now. And there’s a difference between formal and informal assessments. And when I think of informal assessment, I kind of think of it’s just all the time – it’s watching the kids –

it's daily – it's on-going. And there's a lot of information I can gain from my students – their interests. What's going to hook them? I have some kids who don't want to read – they don't like to read – they're not going to read – they dread it – but they love dinosaurs! Well, gosh, maybe if I got some dinosaur books that would spark their interest in reading. And there are strategies – certainly especially for math, if they're approaching a math problem, what are they doing? How are they approaching it? Maybe there are needs, and there are strengths – and a lot of times when we look at some of our lowest learners we need to focus on the strengths – start with the strengths, and build up from that. Now I'm going to introduce you to three of my students that I had last year – these are three kindergarteners – Elaine, Ryan and Kaley. And in my district I'm just required to give a standardized pre-test at the beginning of the year and the same exact assessment at the end of the year. So, when I started my assessment the first couple of weeks of school, Elaine scored 5 out of 20, Ryan scored 5 of 20, and Kaley scored 16 out of 20. Now, this is all I'm required to do until June assessment-wise for math for kindergarten. What would I do? What would I know about them? How could I use that to guide my instruction? Could I? As a kindergarten team we looked at just the scores – just the very top line there, and we thought, okay, we need to do a lot more. All that would tell me was that maybe, maybe, Elaine and Ryan would be at the same place – they both got 5 out of 20 and Kaley 16 out of 20. She had a lot of background knowledge coming in – knew a lot about math. That's all I'd have. So the information that follows below that – that's all things that I got from anecdotal notes, from watching my kids, from assessments we created. And coming into school Elaine knew some shapes – as did Ryan and Kaley. Now Elaine – she hadn't sorted, or I hadn't seen her sort – I didn't any evidence that she could sort or pattern – you know, make or extend patterns. Now, Ryan could sort by color, and he could, you know, these are red, these are blue – but he couldn't sort any other way – or I hadn't seen him sort any other way. As far as patterning goes, I hadn't seen him create or extend patterns. And when I took these anecdotal, we'd been working on sorting and patterning for a couple of weeks, so they should have had some kind of knowledge on it. Now Kaley, on the other hand, could sort. She was like pre-Harvard coming in. She could sort

everything, all these different ways, she'd come up with sorts that I wouldn't have even necessarily thought of. She came in making patterns, and she at the beginning of school would say "This is an A-B pattern". When, with the rest of them I'd just hope we could get this red, blue, red, blue, and she was already labeling them, and extending them. And this is just entry-level, beginning of school, those are their skills. Now, Elaine was kind of interesting too, because she preferred to work by herself, and I have centers set up where after I did my direct instruction, and they did some practice activities, they could go and make a free choice. Well – and my rule, just for management-wise, was no more than four students at a math tub. So, they could go to any center that had up to four students. Well, she could be completely engaged in something – making this fabulous design with pattern blocks – but if anybody came near her she'd put them away and leave – every time – which I thought was kind of interesting, because, no matter how engaged she was, if there was anybody around her, she would clean up and go to a different center. She just liked to work by herself. Now, another interesting thing was in their homework, they have interactive homework menus. And, every day she would either sort the laundry, or sort a snack. But, I hadn't actually seen her do any sorting at school, so I was wondering, you know, what's this? Where's the transfer not occurring, or is she sorting this stuff at home, and I'm just not seeing it? Or is she not making the connection between the laundry and the snacks, or doing it with manipulatives, or do her parents know what sorting is? Is she doing that at home? I don't know. And the other thing, all the time – "Look, Mrs. Guarino, I made a pattern." Had the language, so excited, but it was never a pattern – ever. But she had it and she would always say "Oh, I've got this great pattern," and it was just never a pattern. Now, Ryan was the most excited little math guy, and every day he wanted to know when it was math time. Now, he was kind of interesting, because until I started recording this I didn't realize the frequency. But, it seemed like he always would connect every single unifix cube in the classroom and just make a long snake – or train going across. Now, as I started to kind of jot that down, on 8 out of 10 days he did that. Which, what does that tell me? He's probably going to do it again, and when I'm looking at his skills here, I haven't seen him create a pattern. He counts to 29 – how can I take

that snake or that train – because he’s probably going to do it – and make it more meaningful, and make it a teachable experience, and a learning experience. So, that was my challenge. Now if I had just looked at my original assessment, I wouldn’t know that stuff. Now, we’ve got Kaley, who we’re talking about sorting, and we’re all excited, you know, “Oh, a blue set, a red set.” Now, Kaley, she’s like “Why don’t we sort kids by the syllables in their name?” Okay, and everyone else is like “A, A – I have an A in my name”, but she’s on to syllables. Now, she also loved creating new games, and new activities. So, Kaley thought we should have a syllable-sorting center, where we could just write friend’s names on a sentence strip and that was our center – which was great. She loved creating all this stuff. Then she would teach other kids and now more of us are learning about syllables. This was kind of what she liked to do. Well, great – how can I extend that for her? How can I involve her? That’s her interest – how can I take it to higher levels? So, this is just an example of some of the information I got on my kids from informal assessment, that I wouldn’t have had had I just done my standardized required assessment – I would know any of that stuff. And the way that I’ve gotten a lot of that is through anecdotal notes. I have done anecdotal notes a lot of different ways. I used to use sticky notes, and then they would be everywhere – and I couldn’t remember like who did they go with, or where to put them, and it was a mess. So, the latest and greatest – somebody shared this idea, this wasn’t my own – is using Avery labels. And, this is one of those label sheets with 30 labels, and I pre-print my students’ names on it – which has been so helpful to me, because, then I can look at it in the middle of the week and say “Oh, Amanda – I haven’t seen Amanda this week. I haven’t met with her. I don’t have an anecdotal. And this was helping me make sure that I got to all my students. Because, some of them – like my little Matthew is just perfect, and he just kind of goes under my radar, because he knows everything, he doesn’t ever make a disruption, so I might miss him. So by having this up here, and by having their names pre-printed, I’m making sure that I’m getting to every student regularly. And then I can just peel off the sticky label and put it in a book – a page for them in my assessment book. Now, some of the ways that I get my information is just observing them. Maybe watching that blank look when I’m explaining

something and they just have no idea. Or, jotting down – “Up, Ryan made a snake again, or that train,” or “Wow, Elaine worked with someone today.” Or, “Kayle made and labeled an A, B, C pattern.” So, just by observing what they’re doing. Now, I’m going to jump to analysis, because I can look at their work. I can look at samples of things – they may not even need to be there. And, I can kind of look at that, and take some anecdotal notes. Now, I’m going to share an example with you. Last year I had – I do a lot of cooperative work activities – and I had read this story to my kids called Silly Sally – some of you might know that picture book. And, in that story, the characters are walking on their hands. And so I was asking my kids to figure out – well they’re walking on their hands – how many hands are they walking on? So they had to go, and in cooperative groups figure out how many hands the characters are walking on. And for this particular activity, they chose their own groups. And two of the girls, Allison and Meagan, were kind of more like Kayle – they were kind of like the pre-Harvard – they got everything right, everything was easy – people thought of them kind of as the smarter kids, and then I got a new little guy from another country, who came in mid-year in January and he was from the Czech Republic. And, he was brand new to our country – to our school. He was kind of just beginning to get used to things. And he joined their group. So, the question was “How many hands are they walking on?” So they came back and they brought me this paper, and they couldn’t agree. All the other groups came to consensus – had one answer – except for this group. And this is what they had. This was their paper. Now, if I was just to analyze this – somebody’s wrong. I read the same story to everybody. One group said 10, the other group said 12. If I’d just looked at this work – didn’t have them or any explanation – somebody’s wrong – who do you think it is? Probably Simon – he’s new. These other two girls, boy, they’ve always got it. Well, it was interesting because they could not come to consensus. So, the girls started by explaining their answer first, which is right here. And I said “tell me about that.” So they added each character, walked on two hands, so $2 + 2 + 2$ on to equal 12. Now, Simon didn’t want any part of this – they’re wrong, they don’t know their answer’s not right. He goes “think back to the story.” So he said, “Mrs. Guarino, at the end of the story, Nettie Buttercup, who was one of

the characters, flipped over and she was walking on her feet. All the other characters were walking on their hands, and these are their hands.” So he drew two for each character and came up with 10. Guess what – I didn’t even notice that. None of the other kids noticed that – Simon was the only person in the class that noticed that. Now, had I looked at his work and, gosh, every single group had 12. When I was actually thinking about it, I was thinking 12, because I didn’t even think about that. And, had I just looked at his work, I’d think he missed nit. But, having him explain it, and having that interaction – WOW! That gave me some great information and, okay, hello, I need to like research my questions a little better. So, now I tend to do a lot more interaction as I’m taking anecdotal notes, and having the kids explain to me, because I would have missed a huge bit of information right here had I just looked at their work. And back to informal assessment, it’s also daily and ongoing, and assessing all the time – you know, trying to remember what the kids do and say, and I’ve got a little visual, because, I don’t know, I think I’ve got this great memory – I know my kids, and thirteen of my kids I had last year, so I really know them. Well, I took – and this is the 1st grade math standards – and I cut them up, just how I do to make a curriculum map – and these are all the things I need to teach my thirteen 1st graders. And I would take that and I would look at all my little faces that I know and guess what? I didn’t write the stuff down – they have no idea. Then how can we use it in our planning? You know, I know – Ryan’s probably going to make a snake. Great! How can I make it meaningful? I know what Kayle’s skills are. How can I plan for her? I’m not going to be surprised any more and come up with a lesson – oh, this is going to be for everybody – not going to work! I know that I’m going to have kids that it’s too hard for, too simple, and just right. I can also use my information in communicating with the kids. Wow, look, when you started kindergarten this year you counted to 7 – now look, you count to 15. Talking to their parents – talking to my colleagues – communicating at IEP’s, or when I’m referring students, or conferences – I’ve got all my data, and I can use it to better meet the needs of my students.

(MUSIC)

(MUSIC)

Now on to formal assessments. We have lots of formal assessments we use. I use the one at the top of my grid there that my district requires me to use. Sure, all of our states and districts require us to do certain standardized assessments. And then we have ones out of our textbooks. But, guess what? When I took my standards apart and I made my curriculum maps, I couldn't use my textbooks assessments, because they used greater than and less than not until the place value unit. Well, I taught it in September. I need to assess my kids now on that. So, we were forced - happily forced - to make our own assessments because we could no longer use - and we do use the textbook assessment - but we couldn't rely 100% on those because we had changed around the standards and we needed to assess our kids based on our teaching. And this is an example of a kindergarten assessment. And this isn't something that I make myself, but we sit as a grade-level team and we've got our October curriculum map and we know, okay, here's what we're going to teach our kids this month, and we want to pre-test them. We want to find out before I even begin - what do they already know? So, what we've done is created - and certainly these aren't the end-all, be-all or the best assessments in the world, but we've come up with ways we think that can measure the standards. So, every month we sit as a collaborative grade-level team and we write assessments that match the standards that we're going to teach that month. And, guess what? We can't blame the test. We made the test - we are the test - we own the test. My gosh, I've got to teach to the test, because it's based on the standards. And my goal, although I never meet it, my goal is to have 100% of 100% of my students on this test. Because I knew the test, I made the test; it's based on my standards. So this is one example of one page. Now, I also want to incorporate the language. If you look down to #3 it says extend the pattern. I want to incorporate all that language. And I can take anecdotes as I'm giving the test to the child that says "What does extend mean?" That doesn't mean they can't do the skill. It could mean they don't know the word. So now I need to go back and teach that word. Now, on this assessment here we got some estimation, some geometry and again the standard is written right next to the

assessment question and it's aligned directly with our October curriculum map. Here you see on #13, now it's continue the pattern. So some of the kids may have gotten extend the pattern and not continue the pattern. Maybe it's a vocabulary issue and not a skill issue. And then I'm going to show #2. This is a 1st grade assessment that my kids just took. Now take a look at #2. They had to write how the shapes were sorted. So some of my kids responded squares – the 1st group was squares; the 2nd group was triangles, circles and rectangles. Now, in creating this assessment our goal, as a grade-level team, was to get the kids to sort with the idea of squares and not squares. Now that plays a big part in how I'm scoring this, because they didn't meet my goal of squares and not squares. They knew the 1st group was squares, and then the rest they'd say oh, and everything else. But now that I've written the assessment, that was my goal, that's what I wanted them to do. This was a great one - #11. Draw a circle around all the triangles. Now I have to tell you the community that I teach in – these kids knew that in pre-school, they knew that in kindergarten, now they're in 1st grade – triangles – I don't even need to bother with that one, because they're all going to get it. They knew triangles in-utero. These kids came in knowing shapes. So, we give this assessment and guess what? They bombed! My goal is for 100%. I was getting like 60%, 70%. They got one of those triangles – they got a couple of those triangles right. Exactly – I'm surprised they didn't color them green. They've got those green patterns pattern blocks they worked with. Oh, they knew that triangle – they didn't get the other ones. Now an interesting piece that I'm going to explain a lot more in a little bit is as a grade-level team we wrote this. So we sit and we talk about our results and let me begin by telling you that our school, when we first opened as a brand new school, we got all of the mentor teachers, the master teachers – we got the best of the best. Well, the night before school starts we get some more students. So we need to get a new teacher – brand new – never taught – student teaching. She walks in I think a little intimidating. I mean, I sit in the lunchroom and people are using words I've never even heard of, you know. It's such an amazing community. But here we've got a brand new teacher, a little bit intimidated; now she's going to have to share her data on her assessments. So she comes in – I've got my 60-70% - I'm so sad – triangles! Her kids

got 100%. Brand new – never taught – little intimidated sometimes by the rest of the people sitting in the room. And we were like “What did you do? You got 100%, my kids got 60%! What did you do?” So she said, “I don’t really know. I didn’t know what to do for that so I got out the geo-boards.” What is she teaching her kids? Three angles, three corners, three sides? Her kids got 100%! My poor kids – if it wasn’t green they didn’t know! I – triangles – how did they not know that coming in? Anyway, there’s so much power to this, because now, okay, getting out the geo-boards first. And we’re look at, as we’re talking about this and collaborating, we’re not pulling out who has the cutest one, or who has the thickest Winnie The Pooh file, we’re looking at what works. Here she’s got her data, what works, 100% of her kids. I mean what worked for 70% of mine isn’t as good as what worked for 100% of hers. So that’s one example, and gosh, we made these assessments, we buy them, we own them, and we teach them because they’re based on our standards. So we’re making our assessments. Those all seem to measure the standards how we wanted them to. And now our state – the state of California – has some release test questions where we can go on-line and see some examples that were on past tests. Well with my example of greater than, less than I’ve got two numbers, I’ve got the circle in the middle, they know to fill in, you know, we’re all great. Everybody can do it, they’ve all got it mastered – well, guess what? When they get to the standardized assessment it doesn’t look like that. Our state’s assessment says “Which is false?” and gives them four to choose from. Well, now, my kids all got 100% on the one I made – the one I taught to. They could do that. Well, now I need to look at these released test questions and maybe adjust my questions – maybe word them differently. Because certainly if I’ve taught it and they’ve got it, I want them to be able to convey that when they’re getting to a test question. I want to incorporate every tool that I have – that being one of them. So, we’ve assessed our kids, we’ve got lots of information. And this next piece is the biggest piece to me, and the piece that I didn’t do. I would give my assessments and – great, I’m -10, -1, oh, good job, and put them in my files. And I didn’t look at them again, either until I handed them to the parents at conference or threw them away at the end of the year – they were gone. So here’s what we do now. We itemize our data. And this, I think,

was the most powerful thing in the world. This is my pre-test, based on my October map. And if you look at the very top, I've got all the standards listed. What do you notice? Actually, if it's got an "x" on it, it's incorrect – I'm sorry. If it doesn't have anything, they got it correct, so the "x's" are the errors. Elizabeth needs lots of support. What else? Look at #15. Gosh, I was going to spend a week on that – do I need to? They've got it! Certainly I can extend it, but I don't need to spend a lot of time on #15 on that standard because they've got it. How about #8? Yikes – whole group! And look at Chase and Cole. I need a plan for them, because they know all the stuff I was going to teach. How can I extend it for them? And when I look up there, if I look at #3, I might just need to pull Amanda for that, because she's the only person who hasn't mastered that. When I'm looking at #8 – oh, that's probably the whole group. How about look at #4 – what kind of grouping do I need for that? Maybe a small group. So, before I've even begun the month of October, here's my plan. I know exactly where my kids are, and it's based on my standards of my October map, so that's all I need. I know I need to spend a lot of time with Elizabeth, I need to extend for Chase and Cole, and I know the groups I'm going to pool my kids in. So that's the 1st piece. Now the 2nd piece is even better than that. Now, because we've made this as a grade-level, and based our instruction, this is an example from the end-of-the-year map assessment last year. Now, the boxes that were blank should be 100, but it made the spreadsheet go weird, so look up there. Look at #1 – and our goal again is 100%. We made this test; we taught to this test, we own this test! Our goal is 100% master in everything. Did we get there? No. Look at item #1. You'll see down at the bottom, Hewitt 72%. She did her best, she taught everything she could teach, she pulled out every bell and whistle, and she had some kids that didn't get it. Who should she go to for help, for questions, for support? How about Adams? Adams' kids had 100%. So Hewitt's going to go to Adams on #1. Well now look over to #6. Well, Eiffler and Brown on that got 70%, but look at our friend Hewitt. So they're now going to go to Hewitt. This is where we got what we call our triangle epiphany with our brand new teacher. Because we're looking at what works. And we're all bringing ourselves to the table. And you know what? Certainly I'm as good as I can be, I work my hardest, I use every resource I can think of, I

do my best, but sometimes it's not inside of me. It might be in my partner next door. We all have our strengths, and when we put them together, now look at this. We've got all these great resources, all this information, and we're bettering not just ourselves and our teaching, but the learning of all of our students. Not just my own class, but my grade level and my school site. So this has been one of the biggest things for us is looking at our own individual class data, but also our grade level data. So, we've given our assessment, we've analyzed our data as much as we could possibly analyze it, and now we on to planning. How can we use the data we've got? Well, for one grouping, I knew – back to that overhead – I knew that I could do that #8. Most of my kids missed it – I knew – whole group. Then I knew that #15, where none of the kids – they all mastered it – I don't need to spend any time on that. I can just extend it – they've got it. I knew Elizabeth; I needed to be pulling her a lot. And then I knew Chase and Cole – they mastered everything – I need to extend their learning. So, before I even started I had tons of information on what I was going to do. Now, on to differentiation. I'm going to show you a couple of different ways to differentiate, and the first way I'm going to show you is just differentiating one activity. I'm going to start with a page from my math book. Here in kindergarten, the goal of this is for the students to count the objects and write a number. Now, if I was to go in the order of my book – or actually our district even puts out a road map of what order we can do things in – and on my little road map this came up in December. So, take a look at this page. And you know Kayle, and now imagine yourself in December. Now she can write to 100, count, represent all that in August. Now, we're in December. Is that going to be worth her while? Probably not. Now, even look back at Elaine and Ryan. Could they have used that in August? Yes. So maybe I do it with them in August. I don't need to wait until it comes up in my book, or until when my plan tells me, because they're ready for it then. Now, also looking at it for Kayle, you if it's not worth her while, it's going to take me time to pull it out, how long is that going to take her to do? A minute at the most? So, one of the things that we've tried to do is create some differentiated activities. Now, the next overhead is an example of something we made that uses the same skills. So, on the worksheet page, they were just counting the objects, writing a

number. Now this game is called Race To The Top and in this game they're rolling a die, and writing down the number. So it's the same, they're getting the same skill – they're counting the dots, writing the number. So, here's one number for kids that need, you know, more work, tracing numbers and printing them. And then the next overhead is the same exact game, without the number. What do you notice about that one? It goes from 2 to 12. They've got two dice. What are they doing? Maybe they're doing addition and adding, maybe they're counting – maybe they're counting on. Here I've got my activity. Now, starting at the beginning of the school year Kayle – she could add – she couldn't count on. I discovered that – one day I had her count on and she couldn't do it. So, for Kayle, maybe I give her one traditional, standard die, and the other one has like a pre-printed number, so if she's rolling them and starting with the number and counting on. Now, if you walked into my classroom, everybody's playing Race To The Top. Now, some of the kids might be playing the game where they're tracing the numbers. Some might be writing the numbers. For this one, maybe they're rolling and writing the numbers. Maybe instead of if they roll a 5 and a 2, maybe instead of writing 7, they're writing in that box $5 + 2$ is 7. Or maybe they're counting on. Or now for Kayle, who I told you makes her own stuff – this wasn't enough for her. She started with it, but then she wanted to do 3 dice. So she had to figure out how high to make the numbers up to – which was a little bit challenging for her, because she had to figure out that it now didn't need to end on 2. She could start at 3 and it would go up to 18. So here it's using higher level thinking for her – she has come up with we're all doing Race To The Top, so it looks the same, but they're all at their own levels. Now, at this point of the year, let's say Elaine started off at the beginning level. Well, gosh, in a couple of months maybe she can do this, or maybe she can do Kayle's with 3 dice. You know, if she comes up to me and says "I want to do that one", am I going to say no? I'm going to say great! And I'm going to do it with her, or have Kayle buddy with her. I'm going to make it successful for her, but I want each person to be working at their level. Now this is just one example of one activity – and I can use this all year – because, where Elaine might have walked in the beginning at one level, maybe she could do this mid-year, or the one Kayle made – and here we

are, everyone is engaged at their level. And in kindergarten – for some of you this might be a little trickier – but for kindergarten, I show the simplest one first. You know, who’s ready to go play. Well, every hand. Elaine and Ryan, here you go – let me show you it another way. And it just differentiates itself. And certainly sometimes they want to play a different way and that’s great. And I buddy them up or I play with them and we make it successful. So this is just a differentiated activity. Now I’m getting on to the best part. Now I’ve gone to lots of workshops and they always used to say “Oh, add depth and complexity.” What is that? I could never figure it out. And this next tool has been the greatest tool for me, and that’s Bloom’s Taxonomy. Now if you were to look at your standards, most of your standards probably begin with one of these verbs – the very first word. For example, one of my standards “Identify a pattern”. Well, if you look up there, identify is in the knowledge level. Great! Well, Kayle’s already passed the identification – what can she do? I can take her to a higher level. Now, before, when I used to think I was really smart when I first started teaching – Kayle knows this – let me teach her double-digit addition. And then I’d like now she’s ready for multiplication, and I would have 10,000 things going on across all these different strands, and it was killing me. Now, I can just take this and say we’re doing patterns? Kayle is past the knowledge and comprehension level – what can she do at the application level, or the evaluation level. And, we’re all working on the same strand – at different levels. Now, when you look at your standards they generally start with one of these verbs, and if you look through the grade levels – below your grade level and above your grade level – you’ll see that usually when a concept is introduced, it always starts with the knowledge and comprehension level. Well, if you’re at a grade level where your students should be applying and analyzing and they’re not there – take them back to the knowledge and comprehension level. Give them that support. Let them work at their level and bring them back to application and analysis. We don’t want to just teach them at those lower levels, but sometimes they might need that support and then we bring them back to the level that’s at our standard. These are some standards that I just pulled out of the California standard. Identify time to the nearest hour, compare the lengths of objects by making direct comparisons with reference objects,

develop generalizations of the results of obtained and apply them in other circumstances. Now, take a look up here and see how you could adapt that for higher learners or lower learners. So here you've got your standard at different levels to meet the needs of different kids because you know your kids' needs because you've pre-assessed them – you know right where they are. And you're walking in with this plan. When you enter that classroom on that day and that period for that lesson you know – here's what I'm going to do for these kids, here's what I'm going to do for these kids, here's what I'm going to do for these kids. And you've got a plan. Rather than the way that I used to walk in going “Surprise, I didn't get it” or it was too easy. Anyway, this – I think – is one of the most fabulous tools Bloom's Taxonomy has made it a lot simpler for me to differentiate for the needs of my learners. So, to kind of conclude today, we've talked about differentiation. We've looked at where we want to begin with our standards. What is it we're accountable for teaching our students? We incorporated a ton of assessments – formal and informal. How do we know where our students are? We need to have a lot of information about them and their needs before we can start our planning. We need to analyze our data. Great, I did the test, now I need to look at it, what did I learn from it? And use all of that in planning. And then our goal is to meet the needs of each and every one of our math learners. So, that's it. Thank you very much.

(MUSIC)

For more information or a free on-line follow up to this program, log on to www.ed.gov/teacherinitiative. This broadcast and the follow up are brought to you through a partnership of the US Department of Education and the Panhandle Area Educational Consortium.