Mic Drop Math Podcast: A Mathematics Podcast for Kids				
Intro & Exit	**Concept**	**Real Life Application**	**Misconceptions/ Revelations**	**Old or New Math**
Mrs. W-C Ms. Taylor	Angry Decimal Point: Kid 1:Luke Kid2:Trey Kid3: Sophia Kid4:Tori Kid 5:Nolan Kid 6: Alivia Kid 7:Mena Kid 8:Destiny Kid 9:Logan	Mrs. W-C	Mrs. W-C	Mrs. W-C Carter
Literacy Connections	**Math Joke**	**Speak Like a Mathematician**	**Troll Story**	**Conjectures**
Ava Logan	Kid 1:Stella/Liam Kid 2:Brookelynn	Kid 1:Mills Kid 2:Tucker Host: Grace	Tenths: Brookelynn Hundredths: Tucker Thousandths: Hudson Troll: Grace	Kid 1:Mills Kid 2:Tucker
Interview	**Math Beliefs (Jo Boaler)**	**I Can**	**Follow Along Sheet**	
Logan Mena	Mistakes and challenges are the best time for the brain.	Kid 1:Gaven Kid 2:Leilani Kid 3: Malakhi Kid 4:Mia Kid 5: Grace Kid 6:Josh Kid 7: Mena Kid 8: Carter		

Ep. 1 Segments:

Intro

Yessss. I'm Mrs. Wells-Corfield and I just love that ssssss. You know who else loves that 's' on the end of maths? My student teacher, Ms. Taylor! She is originally from Romania and was super pumped to see that we say and use the word maths. Romania is a country that is located in Europe. If you are looking for Romania on a map you will see the Black Sea is to the south, Ukraine is to the north, Hungary is to the west, and Moldova is to the east. In Romania people say maths instead of math, just like people in other European countries, and just like the fifth graders in my class located in Montpelier, Virginia. Whether you say math or maths we are glad you are tuning in. Now, get ready to turn it up, because I've got a special guest with a bone to pick. It's the decimal and he's not happy about how he's being treated. Not one bit. We hope you listen to this decimal point with an open mind and really hear him out. Do you get him? Does he make sense to you? Do you ignore his position? Or, worse, do you give his neighbors a shove without even considering who they really are? Alright, it's time to bring him in.

Concept

Me: Decimal I'm glad you could be here. I know you've been having a tough time and I appreciate your willingness to talk to us.

Decimal: Well, I can't say I'm happy to be here, but I am grateful some kids are interested in getting to know the real me.

Me: So, tell us, what's going on? What point are you trying to make here?

Decimal: Well, I'm a decimal point. I'm used in decimal numbers. People don't act like I matter. I may look small, but I'm kind of a big deal. I separate whole numbers from the parts. See, decimal numbers are like fractions, except for decimals have me, which makes them way cooler.

Me: Well, I can't comment on that. Fraction bar might be a future guest. I don't want to upset fractions. They're an important PART of mathematics. It just wouldn't be proper to compare fractions and decimals, although we do it all of the time..., . And anyway, really, you two have a lot in common. Basically you're different ways of writing the same thing.

Decimal: Come on, fractions can have any denominator. My decimal numbers like to keep it really simple. We're what people call "user friendly." The denominators we choose to use are 10, 100, or 1000. Fractions will use any number for a denominator.

Me: I agree, but, we like to keep it fair and square here at Mic Drop Maths and I have to say... Any decimal number can be written as a fraction and any fraction number can be written as a decimal. So....

Decimal: You're missing the point!

Me: What's that?

Decimal: Me

Me: Oh, okay. I see. Tell me more about yourself.

Decimal: Well, first of all, I'm not a period. I'm a decimal point. Ugh I'm not over here ending sentences. I'm separating whole numbers from the parts that aren't big enough to be one and aren't small enough to be zero. AND when people read me I go by "and." And is my given name when you're reading me in a number.

Me: That's a valid point. What else do you want people to know about you?

Decimal: Let's see...Oh! The word decimal comes from the latin word for ten.

Me: Hmmm. That seems like it might be important. I'm loving these facts. Give me some more!

Decimal: Location matters! It matters where you put me! If you move me to the left once the number gets ten times smaller. Move me to the left twice and my number gets 100 times smaller. Move me to the left three times and the number will get 1000 times smaller. How would you feel if it was your paycheck and someone moved the decimal point three places to the left?! Not good, right?

Me: Ouch. That decimal placement really would hurt.

Decimal: Now if you move me one place to the right I make a number ten times bigger, two places to the right and the number gets 100 times bigger, three places to the right and I make a number 1000 times bigger, which would be pretty nice for a paycheck. But either way, you can go moving me around all willy nilly. It's called the base-ten system and I wish people would start to show it a little more respect around here!

Me: I see, so you're saying that you feel like people place you any ol' where without thinking about how much your location matters? Am I hearing you correctly?

Decimal: YES! Let me tell you a story about exactly how much it matters.

Me: Okay, we love stories here at mic drop maths.

Decimal: In 2013, Spain built about 3 billion dollars (billion with a b) to build a new submarine. But when they were about to test it, they discovered it was about 70 tons too heavy. It could go underwater but it would be too heavy to come back up.

Me: Wow, that seems like it would be a big problem for a submarine. What went wrong with their calculations?

Decimal: Someone put a decimal point in the wrong place!

Me: Okay, well, I know some students who care about this sort of thing. I'll go have a talk with them and be right back.

Zooooom

Me: Class, I need to introduce you to someone, but he's all kinds of grouchy and rightfully so. He's really important, but before you can meet him, I need you to learn about him and what he does.

Kid 2: Why should we get to know someone who is this grouchy? We like maths not drama.

Me: Well, because he's everywhere. You really can't avoid him forever and he's useful. He's just feeling unappreciated and misunderstood. He's the decimal point and you can find him in batting averages in baseball, on the pump when you're buying gas, on the scale when you're weighing yourself, and anytime you're using

money.

Kid 1: Whoa, this decimal point does seem important. I've definitely seen him before!

Me: Yea, not only is the decimal point everywhere in your real life, the decimal numbers he's used in are just another way to write something you already know about. Fractions.

Kid 2: Wait. How are decimals and fractions similar? They look completely different.

Me: Well with fractions you can have proper or improper fractions that show a part of a whole or mixed numbers that show a whole and a part. Decimal numbers simply use a decimal point to separate the whole number from the parts. Any number that can be written as a fraction can be written as a decimal and any number written as a decimal can be written as a fraction.

Kid 1: Wow. Mind blown. I had no idea. So, why's the decimal point so mad anyway? What'd we ever do to him?

Me: Well, it's not that you did anything *yet*, but lots of kids, unintentionally, in the past, have. Before I tell you about all that decimal drama, why don't we keep getting our facts straight about the decimal point?

Kid1 and 2: Let's do it.

Me: Alright, I want you to explore the base ten system. I want you to see for yourself. Say name of Kid 1: Pass these hundreds grids out to all of your mathematical friends. And, you, you at home, or in class or in the car, you can follow along with our handy dandy follow along sheet. You can print it right from our website: micdropmaths.com or you can just listen along. The choice is yours. Either option is a good option.

Kid1: Okay, they're all passed out. What should we do now?

Me: Take a moment. What is in front of you? What do you notice? What do you wonder?

Kid 3: Well, I see a square with lots of lines on it.

Kid 4: I see that big square, too, but I notice there are tiny squares that make the big square.

Kid 5: Yea! There are! Actually, there are 100 tiny squares inside the big square.

Me: Do you notice anything else?

Kid 6: I'm not sure if I know how to describe this, but I see columns, too. If you look really closely, It's like there are ten columns going up and down. Each column has ten of those smaller squares.

Kid 3: Oh, yea! I see that! There are ten rows, too!

Me: Nice observations, mathematicians! Now, what do you wonder about those? If *you* were to name those rows and columns or if you were to name those tiny squares, what would you name them? Take your time. I'd much rather you think deeply than quickly.

Kid 2: Okay, well, if I were going to name the smaller boxes, I'd call them tiny boxes or something like that, so everyone would know they're really small.
Kid 3: I respectfully agree and disagree with ____. I'd name them something to do with one hundred, because

there are one hundred of them in the big box.
Kid2: But people would be confused because a hundred sound big, but they're really small.

Me: You know what mathematicians call each of those one hundred tiny squares that make up that one big square? Hundredths! You've both got great ideas! They wanted to use a hundred to show how many parts to make the whole. Then they added the 'ths' so everyone would know we were talking about small parts, not whole numbers.

Kid 2: That makes sense!

Me: So what could we call those columns or rows that _____ saw in the big square?

Kid5: Well, if the little boxes are called hundredths because it takes one hundred to make the whole with the 'ths' on the end so we know they're parts, then I would call these tenths because it takes ten of them to make the whole and since they're small parts, I'd keep the ths.

Me: Wow, you're really inside the heads of those early mathematicians. This is the base ten system in action! Now let's pass out some more grids. ____ can you make sure everyone has ten of those big squares?

Kid 4: Okay! Everyone has ten. Now what?

Me: Put those grids together, side-by-side, and tape them to make one big rectangle. Kids listening in, do you see that on your handy dandy follow along sheet or are you picturing ten big squares taped together in your mind?

Kids: All taped!

Me: Now, hold on tight. What if I told you that you've made one?

Kid: I thought just one square represented one?

Me: During our first mathematical exploration was square grid was one, but now we are on a new journey and now ten grids taped together is one. The size of one can change. That is why I will always define the whole when I'm asking you to name decimals. When I say I define the whole, it just means I'm telling you how big one is. Because, remember the size of the whole or one can change!

Kid: I never realized the size of the whole can change, but that does make sense now. I could take one tenth of 100 dollars or I could take one tenth of 1,000,000 dollars. The size of the whole would definitely be a game changer in that situation!

Me: Exactly! Sooo, how could you use the base ten system to find something that could represent tenths?

Kid 3: Well, if it takes ten tenths to make a whole and I taped ten squares together, then each square represents a tenth.

Me: Look at that math mind. We all have them. I'm glad you're using yours! So, how could we show a hundredth?

Kid 4: I have a conjecture! I think that one hundredth will always be smaller than one tenth, because no matter what size the whole is it only takes ten tenths to make one, but it takes one hundred hundredths to make one.

Kid 5: I respectfully disagree. Hundredths just sounds bigger than tenths.

Kid 4: Yea, but it only sounds bigger. Hundredths are smaller, because it takes more of them to make one.

Me: Well, why don't you use your representation to check ____'s conjecture?

Kid 5: Look! I see it. Each one of those columns could be a hundredth because there are one hundred of them. And yea, I must agree with _____, hundredths are smaller than tenths.

Kid 6: I wonder if there could be any smaller parts than hundredths?

Kid 2: What about those individual tiny boxes?

Kid 6: You're right! There are a hundred of those in each box and there are ten boxes. If I counted by hundreds..that would be 1,000!

Me: So what could we call those even smaller pieces?

Kid 4: Thousandths. Geez, those thousandths are a lot smaller than tenths and they're also smaller than hundredths.

Me: All this maths talk is making me super excited! Questions and discussion are definitely the best way to learn maths! I'm so proud of you. Now, Since tenths are closer to the whole. We'll put them right next to the decimal point, then hundredths, and then thousandths. You can see this written on any decimal place value chart anywhere!

Me: This reminds me of the prequel to The Three Billy Goats Gruff.
Kids: The prequel?
Me: You know the story before the story?
Kids: Oh...
Me: I'd like to tell you a little story about the three decimal places gruff.
Kids: The what?
Me: You heard me...the three decimal places gruff.
Me: There once were three decimal place values. Tenths, hundredths, and thousandths. They were separated from the whole numbers by a place value bridge. One day they decided they wanted to go to see what was on the other side of that bridge, but they'd have to pass by the terrible, hungry troll lurking under the bridge waiting to eat whomever crossed!. One day the thousandths decided to cross the bridge:

Trip trap trip trap

Troll: Who's that trip trapping over my place value bridge?
Thousandths: It is I, the thousandths place.
Troll: If you come any closer I will eat you!
Thousandths: Oh, don't eat me. My much bigger brother is about to cross the bridge. He's the hundredths place and he is ten times as big as me.
Troll: Grrr. Okay, you can cross the bridge.

Trip trap trip trap

Troll: Who's that crossing my place value bridge?
Hundredths: It is I, the hundredths place.
Troll: Well, I have been waiting for you and I am very hungry! Now I shall gobble you up!

Hundredths: Don't eat me! My brother is about to cross the bridge. He's the tenths place and he is ten times bigger than I am!
Troll: Ughhh. You can cross. I'll save room for the bigger place value.

Trip trap trip trap

Troll: Who's that crossing my place value bridge?
Tenths: It is I, the tenths place.
Troll: I've been waiting for you. Now I shall finally eat!
Tenths: Don't eat me. You can eat my brother, the whole number. He's ten times bigger than me.

Troll: Arghh. Okay you can cross, but I am a troll and I am hungry...things might get ugly soon if your big brother the whole number doesn't come trip trapping soon!

The tenths place smiled a sneaky smile as he passed the troll, because he knew his big brother, the whole number was on the other side of the bridge already and that troll was never going to get to eat up any of his place value family after all. Little did the troll know that soon some billy goats would be coming and they weren't quite as kind as the place values in the base ten system!

Me: Now, I don't know about you all, but my maths wheels are spinning! I love learning and growing, but I think I need to make a point to take a time out for some maths laughs.

Insert joke segment

Carter: So we are learning about all these numbers and how each place in a number has a different value. Who came up with this number anyway?

Me: What a great question, Carter! I love your curiosity. Your question got me thinking, and digging, and researching and I found out some pretty cool maths history. Alessandra King is an astrophysicist, but she's also taught math and science in middle school and high school in Italy, the Philippines, and the US. This is what I learned from her...

Me: Numbers have been a fact of life throughout recorded history. Early humans would count animals or people by using body parts or tally marks. But, eventually, human life got more and more complicated and there were more and more things to count! Different civilizations came up with different ways of recording higher numbers. Greek, Hebrew, and Egyptian numerals were a lot like tally marks, but they used new symbols to represent higher values. Then Roman numerals came along and added another twist. If a number came before a numeral with a higher value it would be subtracted. But even that wasn't enough to write really large numbers! This is when humans came up with positional notation, which is what you are studying right now! Instead of drawing symbols repeatedly and inventing new symbols for larger magnitude we started using positional notation. This system lets humans use the same symbols simply by assigning them different values based on their position in the number. Babylonians, ancient Chinese, and the Azteks came up with the first systems that used positional notation. By the 8th century (the 700s), Indian mathematicians perfected this system. Over the next several centuries Arab merchants, scholars, and conquerors began to spread the system of place value or positional notation to Europe. This system is what we call the decimal or base ten system! It can be used to represent ANY number using 10 unique glyphs or symbols. The position of these numbers indicate powers of 10 starting on the right and increasing as we move left. For example, the number 316 is 3 100s, 1 ten, and 6 ones. The Mayans improved on this system. They came up with...get this...the number zero! Before Mayans created the zero, mathematicians would leave a blank where the zero would be now, which would make it hard to distinguish 12 or 120. Zero started being used as both a number and a placeholder, which made this system very reliable. Any 10 symbols could be used to

represent the digits 0-9. Most scholars agree that the digits 0-9 that we use now evolved from the North African Maghreb region of the Arab empire. By the 15th century (1400s) what we now know as the Hindu Arabic Numeral System had replaced Roman numerals in everyday life to become the most commonly used number system in the world! So why did the Hindu Arabic system along with so many others use the base 10? The most likely answer? Because we have 10 fingers. Seriously. That's why I say, go ahead and use those fingers! You don't need to hide the in your desk to count. Ancient scholars built an entire number system off of them! So, the next time you use a large number think of the massive quantity that is captured in just a few symbols. Pretty cool, huh?

Carter: Wow, It's amazing how many civilizations in the world came up with these systems of writing larger numbers. We're learning place value which took hundreds and hundreds of years to create and it was created by mathematicians all over the world!

Me: Exactly! The actual idea of decimal numbers instead of fractions was developed by mathematicians from Persia, Belgium, and Germany. The way they wrote decimal numbers looks very different than the way we write them today, but the idea about tenths and hundredths is the same. Maths is and will always be fascinating.

Me: Alright, I think it's time to meet the symbol of the half hour, Mr. Decimal Point.

Kids: Hi, Mr. Decimal Point!

Decimal: Hello! You can just call me and. It's nice to meet so many young mathematicians.

Kid 7: Can I ask you a question?

Decimal: Sure, anything.

Kid 7: We've been talking about rounding decimals. Can you help me understand that a little better?

Decimal: I'd love to! Mrs. Wells-Corfield, Do you like number lines?

Me: Oh, yes! Number lines are the hottest thing in maths. We use them all the time!

Decimal: Great! Okay, students, can you draw a number line on your desk? Draw a straight line. Put arrows on the ends of the line.

Kid 8: Got it!

Decimal: Now, draw a line right in the middle.

Kid 9: Done!

Decimal: Now, draw four little marks evenly spaced out on the left of the middle line and four evenly spaced out on the right.

Kid 7, 8, 9: Like this?

Me Kids listening in. You can draw your own number line or take a peek at ours on our handy dandy follow along sheet that can be conveniently found on micdropmaths.com!

Decimal: Everything you need to know is right there on that line.

Kid 7, 8, 9: Really?

Decimal: Yup! When you round a number, you are simply finding what number it is closest to. When we round to the nearest whole number, we are finding the closest whole number. When you round to the nearest tenth, we are finding the closest tenth. And we can do all of that rounding using that very same number line.

Me: Let's do this! Let's take the number 47.528.

Decimal: What a beautiful number! Let's round it to the nearest whole!

Kid 8: Five or above give it a shove!

Decimal: But why? Why are you shoving that beautiful number. I don't mind if you do as long as you can tell me why.

Kid 8: Because it rhymes?

Me: Come on kids! We can do better than that. Let's use reasoning. If rounding is all about finding the closest number, then I'm sure we can use our number line to prove it. Let's put that super powerful number line you just drew to use!

Kid 9: But if I need to know which number it's closer to then I'll need to know what numbers it comes between. I'm not sure how I can tell what 47.528 comes between...

Kid 7: Well, the decimal point did say we should round to the nearest whole...

Kid 9: I know the whole number is to the left of the decimal point, but which will I use? 47.528. Would I say the 7 because it's in the ones place, 40 because it's in the tens place or 47 because it's everything on the left?

Me: Great questions! And this is something that often confuses students. I see it all the time. What would happen if we just used the digit in the ones place? If we rounded to 7, but dropped the 4 tens?

Decimal: I'd get really upset! This is what makes me so sad. You can't change the value of my number! You can round it, but you can't tell me that 47.528 comes between 7 and 8! It's way bigger than 7 or 8!

Kid 9: Oh, that's true!

Me: And we didn't ask you to round to the nearest tens place. We asked you to round to the nearest whole number. Let's take the entire whole number.

Kid 7: Okay well then 47.528 would come between 47, but what would the other number be?

Kid 8: If we were just counting 48 would come after 47. Does that mean that our number 47.528 comes between 47 and 48?

Me: It sure does!

Decimal: Oy! I feel so much better. You kids really know how to think through some numbers!

Me: So let's put 47 on the left of our number line and 48 on the right of our number line.

Kid 8: I'm going to keep asking questions because I really want to understand this rounding business and I know the only way that I can truly understand something is by asking questions until it clicks.

Me: Ask away!

Kid 8: I see that my number is between 47 and 48, but how do I know which one it's closer to?

Me: What do you guys think?

Kid 9: Hmm. I don't know if this is correct, but I'm going to take a chance. Mistakes are part of learning, so here it goes...I think if it takes ten tenths to make a whole so maybe if we are rounding to the nearest whole number, we should look at the tenths?

Me: I love how you put yourself and your ideas out there! Questions and discussion are the ONLY way we can really learn maths! And, I completely agree!

Kid 8: But there are five tenths in the number 47.528? That's smack dab in the middle. Would I go to the lower number it's between 47 or the higher number it is between, 48?

Me: Mathematicians have made an agreement that if we are rounding and we land in the middle of our number line at 5, whether it's plain old 5, 5 tenths, 5 hundredths, or 5 thousandths, we will round to the larger number.

Kid 9: Then if I rounded 47.528 to the nearest whole number it will be 48!

Me: Nailed it! The closest whole number to 47.528 is 48.

Kid 7: I wonder if I could round that same number, 47.528 to the nearest tenth? It seems like I should be able to.

Kid 8: I think we can, but I'm wondering how we'd put it on the number line?

Kid 9: Well, maybe it's the same idea as before. We should probably keep the digit in the place that we are rounding and everything in front of it, otherwise we'd be changing the value of the number.

Me: So can you show me what that would look like on the number line? The number line just really helps me see your thinking and it helps you see which number your number is closer to.

Kid 7: Well, I set up my number line just like before. A long line with arrows on both ends and a hash mark in the middle. I like to make that line a little bigger than the four little tick marks to the left and right of it.

Kid 8: If I'm rounding 47.528 to the nearest tenth. I'm going to put 47.5 on the left side of the number line.

Kid 9: And if we are counting by tenths then the next number would be 47.6. Let's put that on the right.

Kid 7: Whoa! I think we just found the numbers that our number comes between if we are rounding to the nearest tenth.

Kid 8: If we looked at the tenths to round to the nearest whole, then I think we should look at the hundredths to round to the nearest tenth. It takes ten hundredths to make a tenth, Each of those tick marks is now representing

hundredths.

Kid 9: That's pretty cool because the last time we did this the tick marks were representing tenths!

Me: The number line strikes again!

Kid 7: I'm going to mark 2 then, because that is how many hundredths are in the number 47.528.

Kid 8: It just looks like it's closer to 47.5 than to 47.6.

Me: That's because it is! I believe you have found your answer! If you round 47.528 to the nearest tenth it would be closer to 47.5 than to 47.6!

Kid 7: I've got a gut feeling we could round this very same number to the nearest hundredth, too, AND I have a feeling we can keep on using the number line to round!

Kid 8: Alright, I've drawn my number line.

Me: Kids tuning in, you can see our number lines or draw your own on our handy dandy follow along sheet OR you can just picture our number lines in your rmaths minds. You do you!

Kid 9: If I'm rounding 47.528 to the nearest hundredth, then I better not mess with my whole number or tenth, I'm trying to find what my number is closer to, not change the value completely!

Kid 7: Good idea! Let's put 47.52 on the left.

Kid 8: And if we count by hundredths we can put 47.53 on the right.

Me: I love your thinking!

Kid 9: And I know it takes ten thousandths to make a hundredth, so if I look at the thousandths I can find out which number on my number line I am closer to.

Kid 7: 47.528 has 8 thousandths. That's super far down my number line. This number is definitely closer to 47.53 than to 47.52.

Me: And there you have it! You took one number and rounded it to three different places and each time you were able to use a number line to see which you were closer to. Way to go Mic Drop Maths kids!

Before we wrap up episode three of Mic Drop Maths it is now time for another one of our famous game shows...Name That Digit!

Host: Alrighty, contestants. Who's ready to name that digit?!

Contestant 1: I am!

Contestant 2: Let's go!

Host: This game is pretty simple. I read a number and show you the number on our jumbotron. I will say a place

value and you will have to buzz in and name the digit that is in that place. Do you have any questions?

Contestant 1: Let's do this!

Contestant 2: Game on!

Host: Kids listening in, feel free to shout the answer if you know it. You can even try to be our contestants. Here's your first number... 4.673 (read as 4 point 673- don't say this out loud...this is my note to you). Which digit is in the tenths place?

Contestant 1: 6!

Host: That's correct! In the number 4.673 the 6 is in the tenths place! Okay, same number. 4.673. Which digit represents a whole number?

Contestant 2: 4!

Host: Correct! Now it's a tie game. This will be the tie breaker. In the number 4.673, which digit is in the thousandths place?

Contestant 1: 3!

Host: That is correct! And with a score of 2-1, you are our winner! Thank you both for playing...Name That Digit!

Contestant 2: Good game. It was nice playing with you. You really are fast on that buzzer.

Contestant 1: Great job! You really know your place values!

Host: And for your good sportsmanship you both have earned free episodes of Mic Drop Maths! You can subscribe on Apple Podcasts, Stitcher, or Spotify. You'll always know when the next episode drops if you subscribe!

Contestant 1 and 2: Yes! We love Mic Drop Maths podcast!

Host: Thanks for playing!

Decimal point lead speak like a mathematician segment- create game or song or story (maybe three digits gruff trip trapping over the place value bridge?) for terms: decimal, tenth, hundredth, thousandth, digit, place, value digit, place, round, decimal, tenth, hundredth, thousandth, whole number

End with I Can Statements

Real Life Application

Baseball batting averages, buying gas, getting weighed on a scale, money

Misconceptions/ Revelations

- Students round to a lower place value when asked to “round down.”
- Students memorize the procedure of rhyme without understanding they are finding the closest friendly number.
- Students round to the largest place value when asked to round to the nearest whole number, instead of the actual whole number.

Old or new math?

Base ten system
Dewey Decimal system

Literacy Connections

Hi, I’m Ava.

I read the book The Dewey Decimal System by Allen Fowler. I chose this book because I’ve always wondered what all of those numbers on the side of library books meant. It turns out Melvil Dewey created the Dewey Decimal System as a way of organizing library books. What’s interesting is the digits in the numbers represent various ways to classify the books. For example, books in the 100s are philosophical books, 200s are religious books, 500s are scientific books, and 900s are historical and geographical books. All of these decimal numbers on the side of the books were really intriguing to me. I decided to play around with these numbers a bit. I took some of the books my classmates checked out and ordered them from greatest to least. If you want to know more about the Dewey Decimal System, I recommend this book!

Hi, I’m Logan!

I read the book The MacMillan Book of Baseball Stories by Terry Egan, Stan Friedan, and Mike Levine. I love baseball, which is why I chose this book. My favorite story in this book was called, “Like Father, Like Son: The Griffey’s.” It was really cool to learn about Ken Griffey, Jr. and his dad Ken Griffey. My favorite quote was when his dad said, “You just go out there and enjoy yourself. That’s the best part of baseball.” That’s why I play baseball- to have fun. I read about Ken Griffey Jr. and how he stopped having fun when his batting average dropped to .230. I was inspired by him not giving up and how he kept going even when he was struggling. This made me want to look up some of his other batting averages. His lowest batting average was .184. His highest average was .323. Now that I know all about decimals those batting averages make a lot more sense! If you like baseball, you should check out this book!

Lunch Money and Other Poems about School by Carol Shields
Use the poem *Lunch Money* and have students come up with their own amounts and practice rounding

The Dewey Decimal System by Allan Fowler
Compare the Dewey decimal numbers of two books on a shelf. Which would come first? Order decimals from least to greatest and vice versa.

MacMillan Book of Baseball Stories by Terry Egan and Stan Friedmann
Use baseball averages to read, write, round and compare decimals.

Piece=Part=Portion By Scott Gifford

Baseball's Best: Five True Stories by Andrew Gutelle
Use baseball averages to read, write, round, and compare decimals.

Math Joke

Grace: There's a fine line between a numerator and denominator.
Only a fraction of people find this funny.

Stella: I didn't

Speak Like a Mathematician

decimal, tenth, hundredth, thousandth, digit, place, value
digit, place, round, decimal, tenth, hundredth, thousandth, whole number

Conjectures

Ten tenths makes a whole
One hundred hundredths makes a whole
One thousand thousands makes a whole

Interview

Fin and Feathers Pet Store Owner

Math Beliefs (Jo Boaler)

Questions and discussion deepen your mathematical understanding.

I Can Statements

Grade 4:
I can identify the place name and the value for each digit in a decimal number through thousandths.
I can write decimal numbers through the thousandths if I see them written in words or if I hear them read to me.
I can read decimal numbers through the thousandths.
I can use base ten models to represent decimal numbers.
I can explain the relationships between the places in our place value system.

Grade 5:

I can make connections between rounding whole numbers and rounding decimals.
I can justify why a decimal rounds to a specific number using a number line.
I can round decimal numbers to the nearest whole number, tenth, or hundredth.

Exit and Thanks

Thank you to Mr. Decimal Point for being here today and thank you to Ms. Talyor for bringing her European perspective and love for learning to our classroom!
Everyday love changing every day lives.