Lesson:	Division Lesson, Second Grade
Teacher:	Ms. Sonia Cosio
Video URL:	http://education.ucsc.edu/ellisa/case_studies/cosio-division-lesson.html
Clip:	Part 1
Abbreviations:	
T = Teacher	S = Student Ss = Students [???] Unclear

Transcript

[00:00:05]
T: Ever since you've been in kindergarten, you've been learning about some arithmetic operations. Which is the one that puts two amounts together?
Ss: Addition
T: Addition. Which is the one that we take it away?
Ss: Subtraction
T: Subtraction. My goodness you're using all those second grade words now: addition and subtraction.
S: What about multiplication?
T: We have also learned the shortcut for addition!
Ss: Multiplication!
T: Multiplication! And now, we are learning the shortcut for subtraction, which is…?
Ss: Division!
T: Division! Okay! I just need to write it in case you want to know how to spell the word "division" because it sounds like "shun" but are you going to see the "sh"?
Ss: No
T: No, we don't see the—
Ss: I…O…N… *[students spelling outloud]*
T: Division. And the symbol…
S: [???] Commotion [???]
T: Commotion! That's right. Same –shun. Same ending. Division. What is the key word for division? The keyword for division…what does it mean?
[00:01:28]
S: Equal?
T: Equal? Okay equal, but equal what? What do we do?
S: Take away—
T: We have an amount…
S: Share that equally!
T: Share a set of something equally.
S: Like take away equal…[???]
T: Take away equal [???] Same thing. Okay. Let's pretend. Here we have a group of—in this case they are magnets—can this be…can this cookies?
Ss: Yes!
T: Yes, yes. Can this be marbles?
Ss: Yes
T: Could these be little cheerios?
Ss: Yes.
T: Sure, why not? Could this be…

S: Grapes?
T: We can still eat them at the end after they have been shared equally, right? Or unless we have some leftover. They could still be…
S: [???] Grapes?
[00:02:27]
T: Or grapes. Okay. Help me count all these and I don't want to count by ones. So help me count by twos.
Ss: Two, four, six, eight, ten, twelve, fourteen…
T: Fourteen. Okay… two, four, six, eight, ten…for now I'm going to just use twelve. And since I'm working with numbers, I need to double check that I have the number that I need to work with. Two, four, six, eight, ten, twelve. We are going to pretend, Justin, we are going to pretend that these are twelve cars. Okay? Pretend they are twelve cars. Those twelve cars need to be parked in—they need to go into three garages. So they need to be parked into three different garages. So do you think I'm going to spend my time drawing pretty garages here?
Ss: No
[00:03:24]
T: No
S: You can use circles or squares…
T: I can use squares or circles. Would that work? Okay. Yeah. So let's do…those are my garages. And this one I'm going to call it Garage A. This one I'm going to call it Garage B. And this one Garage C. And here are all my cars. Oops I forgot to do this. Are you with me?
Ss: Yes, ma'am!
T: Okay, not everybody. Are you with me?
Ss: Yes ma'am!
T: Got it. Okay. Two, four, six, eight, ten, twelve…I have my twelve garages here and they need to be divided equally into those three garages. Those are cars that need to go into the garages. So…if you can draw this on your own paper, you can start counting. But since we can move these cars, let's do it like this. I want to hear you say this one. Remember we practiced like this the other day? This one goes in Garage A.
Ss: A
[00:04:32]
T: Okay so say it with me.
T+Ss: This one goes in Garage A. This one goes in Garage B. This one goes in Garage C. This goes in Garage A. This one goes in Garage B. This one goes in Garage C. This one goes in Garage A. This one goes in Garage B. This one goes to Garage C.
Ss: This one goes in Garage A. This one goes in Garage B. That one goes in Garage C.
T: Okay, no not yet. Do we have any more cars leftover?
Ss: No
T: No, because they were—they're all going to those garages and they're all parked nicely. Okay. So now, what number…how many cars did we start with?
[00:05:22]
Ss: Twelve
T: Twelve. And now I'm going to be using the division. The number sentence. Twelve divided by…how many garages? Three? Equals four.
Ss: Four

T: Now here we go. Remember, I'm going to…I'm going to ask…Elise [???]. We've been doing this and I think we need to practice again. Let me ask. I'll be A and you'll be B. You can help yourself by looking up there. And, uh, we have the question. What does this mean? Look what it says here.
T+Ss: It means…
T: And there's a number here, right? A number will go here and a number will go here.
Ss: Twelve divided by three…
[00:06:10]
T: Let's practice. Let me start. Let me get you started. What does this mean?
Ss: This means…
T: Oh, you said "this". Take a look.
Ss: It…this…
T: It says "this". Can we use the word this?
S: Yeah, or "it"!
T: Can we use the world "it"?
Ss: Yes
T: "It". It means… will it be the same? Let's practice with "it". Let's practice with "it". Ready? Go.
T+Ss: It means…
Ss: Twelve divided by three equals four.
T: Equals four.
S: What does it have underneath?
T: Let's try it. Let me see. I'll show you. We can always use the word "this". This means twelve divided by three equals four. Um, Vanessa is asking me about this world over here. It says "equals". We can also use another word for "equals". "Is", okay?
Ss: Is!
T: Okay. So if you use the word "is" which is not a verb, or the word "equals", it means pretty much the same. It will still make sense. Okay? Now…okay let's try this one. What is the big number we are going to start with?
S: Thirteen?
T: Let's count again. Count. Two…
Ss: …four, six, eight, ten, twelve, fourteen...fifteen.
[00:07:34]
T: Fifteen, okay. It's not very—it's not even. But let's see what we can do with the number fifteen. These could be five jelly beans. My mom came from the store and she brought jelly beans. And she said "Luis, look what I got for you! Jelly beans! I got all fifteen. Cool!" "Well Mama, I am going to go outside to play with my friends." "Sure, just don't eat all the jelly beans by—to yourself." "I promise I won't even though I feel like eating them all." But no, I'm going to go outside and when I went outside I found my friends and they said, "hi would you like to play?" and you say "Sure; look what I have. I have some jelly beans that I would like to share with you". You know how many friends I have?
S: *[student replies]* [???] best friend anymore…
[00:08:31]
T: Oh yeah, that was a long time ago. There were…four of us altogether. Three friends and myself. So that means, now we have to divide these fifteen jelly beans into four people. Two, three. This is me. One for me, and my other friends. I need to make this a little bigger to make

them fit. One, two, three. Okay. B for Billy, um, R for Rudy and, okay…uh…J for Justin. Ready? Here we go? One for Billy, one for Rudy, one for Justin, one for me.
[00:09:19]
Ss: One for Billy, one for Rudy, one for Justin, one for me. One for Billy, one for Rudy, one for Justin, one for me.
T: Do I still have enough? Look at this. Look at this. How many do I have? Three. How many does Billy have? Three. How many does Rudy have? Three. How many does Justin have? Three. Look at what I have here. If I give one to me, one to Billy one to Justin…have they been divided equally?
Ss: No
T: What would Rudy say?
Ss: Hey, what about me?
T: What about me? It's not…?
T+Ss: Fair.
[00:10:02]
T: So…
S: Leftover!
T: Leftovers! So I will just have to keep these and take them back.
S: To your mom.
T: So give me your number sentence. Turn to your partners, what will be the number sentence for division? That's true. Good idea. I could do that. Turn to your partner. What will be the number sentence?
Ss: *[students chattering and talking amongst themselves]*
T: What will be the number sentence? What number did I start at the beginning?
S: Fifteen divided by…four…equals…
T: Equals…?
S: Three.
T: With a remainder of…?
S: Leftover of three.
T: You got it! Five, four, three, two, one…Now here we go. Listen carefully! Boys, listen. Boys! You're going to be A. Girls, you'll be B, okay?
[00:11:09]
T: Okay, boys, ask the question.
Ss: What does this mean?
T: Girls?
Ss: It means…fifteen divided by four equals three
T: With a remainder of…?
Ss: With a remainder of three.
T: Oh remainder. What other word can we use for "remainder"?
Ss: Remainder?
T: Hm…
S: Leftover!
T: Leftover. With a leftover of three. Okay.
[00:11:52]