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|-----------------------|---|-------------|---------------|
| <b>Lesson:</b>        | Division Lesson, Second Grade   |             |               |
| <b>Teacher:</b>       | Ms. Sonia Cosio   |             |               |
| <b>Video URL:</b>     | <a href="http://education.ucsc.edu/ellisa/case_studies/cosio-division-lesson.html">http://education.ucsc.edu/ellisa/case_studies/cosio-division-lesson.html</a> |             |               |
| <b>Clip:</b>          | Part 2  |             |               |
| <b>Abbreviations:</b> | T = Teacher   | S = Student | Ss = Students |
|                       |   |             | [???] Unclear |

**Transcript**

1  
2 [00:00:05]  
3 T: It is time...it is time to put this into action. You'll be using...we'll be...playing the game.  
4 This...last time there were some problems so I think this time you're going to get even better at  
5 this, okay? Okay, we're still going to be working in partners. Listen carefully. Each one...each  
6 two people, like partners, each two people will be receiving—I need your eyes and I need your  
7 ears. Because...you know what's going to happen? I can hear some of you say “Ms. Cosio, what  
8 do we do? What do we do?” and I don't want to say this again and again and again. I get tired.  
9 It's no fun.  
10 S: *[student says something to T]*  
11 T: If you forget, yes, you can look at there. So two people will be receiving—look I change the  
12 color to make it fun.  
13 Ss: Yay  
14 T: And then you'll have fifteen beans, a die...a die...do you mean that...  
15 S: Up there?  
16 [00:01:20]  
17 T: No no no. We're going...a die. You know this little...what shape is this?  
18 Ss: A cube!  
19 T: A cube. A cube with numbers on it. Plural is dice. And you will also be receiving squares. I  
20 need to review this because last time some of you were making some mistakes. You roll the die.  
21 Remember, roll the die and the number that you get, that will tell you how many...?  
22 S: Plates  
23 T: How many plates. Let's pretend these are plates or dishes. Yeah how many plates you will put  
24 out. Those are going to be the groups. Yes, Alexis. And then, Jacobo. And then the beans will get  
25 divided as equally as possible. And after you're done with that, what happens? Remember what  
26 we did last time?  
27 S: I need to ask a question.  
28 [00:02:16]  
29 T: You need to ask...one of you. You get to decide who's A and who's B. I leave that up to you.  
30 You decide and you...ask a question and then you answer. And then you switch.  
31 Ss: *[students talking]*  
32 T: I beg your pardon? You can choose your partner, yes. I need to see though, I need to see  
33 sticky high fives so I know who you're going to be working with.  
34 Ss: *[students talking and pairing up]*  
35 T: You need to stand up and find...find, find, find your partner, find your partner.  
36 S: Is this a sticky high five?  
37 T: You may start going. You may start going. When I hear you say the question and the answers.  
38 Let's see. Six. What does that mean? Six plates? Open them up and spread them out so you have  
39 enough room. You got fifteen. You only got fifteen. You only got fifteen what?  
40 [00:03:22]

41 S: Oh I thought we were gonna have twenty[???

42 T: No you don't need to have twenty.

43 Ss: *[students talking]*

44 T: She can do it too. Do it together.

45 Ss: *[students talking]*

46 T: Look what's happen. Look what's happened. I'm coming. I'm going to come to help out,  
47 okay? Just do it yourself. I'll be there. Oh, look what I notice. No, okay. Check and make sure  
48 that everybody has enough. Or equal amounts.

49 S: One, two, one, two, one, two, one, two...

50 T: I like how you checked counting. That was very bright of you making sure I do the same  
51 thing. So did we divide the beans equally?

52 S: Mm

53 T: Did we divide this equally? Look, two, two two...so yes! So now you're ready to say it.  
54 Who's going to be A and who's going to be B?

55 [00:04:33]

56 S: I will be B.

57 S: I will be A.

58 T: Good, what do you say?

59 Ss: *[students talking]*

60 S: What does [???

61 S: Fifteen divided by six equals...two.

62 T: With a...with a...remainder...

63 S: With a remainder of three.

64 T: Three. Okay, take one and put it there. Now...you too. Put this one and put it there. One for  
65 him, one for me. Then you say the same thing. One for me. And you then you say...say it. One  
66 for me.

67 S: One for him. One for me...[???

68 Ss: *[students talking]*

69 [00:05:25]

70 T: See? Now stop. Do you have equal amounts? So far, how much do you have? Yes, there you  
71 go. So keep going. One for me...

72 S: One for me, one for him. One for me, one for him...

73 S: Let's make sure they're all equal. One, two, three, four, five six, seven, eight.

74 T: Eight. How many do you have?

75 S: One, two, three, four, five six, seven...

76 T: Seven. Oh! So he has one...too...he has one too many, right?

77 S: Count it again.

78 Ss: *[students talking]*

79 T: Leave him alone. He's organizing the beans, see? He's organizing the beans.

80 Ss: *[students counting number of beans]*

81 [00:06:17]

82 T: Are they in order now? Now they're easy to count, right?

83 S: One, two, three, four, five, six, seven.

84 T: I agree with the seven.

85 Ss: *[students counting]*

86 T: Uh oh. Is that fair?

87 S: No  
88 T: That's no fair, so you're going to give it to him? How many are you going to have? Seven  
89 plus one? Eight. How many do you have now?  
90 S: Seven  
91 T: Is that fair?  
92 S: No  
93 T: Are we—yes—are you ready to say that? Are you ready for your dialogue?  
94 Ss: *[students talking]*  
95 S: What does this mean?  
96 S: This means that...  
97 T: What was the amount that you started with?  
98 S: Fifteen divided by two equals...  
99 T: Uh uh Vanessa. Vanessa. Don't be disrespectful.  
100 S: seven...and a remainder of one.  
101 T: You got it! See? See how fun this can be? Alright, clean your beans again and play it one  
102 more time. See? I know you're learning a lot just by doing this. You're playing at the same time  
103 you're working. Okay? Richard?  
104 [00:07:36]  
105 T: Richard, can you imagine, um, having to do this when you grow older for your workers? If  
106 you work, say, if you have a job and you want to buy cookies for your workers? And you want to  
107 make sure that you divide the cookies equally to all your employees? You will have to do  
108 division! See? Pretty cool. Try again. Roll the die.  
109 [00:08:01]  
110 T: Okay, what do we have going on here?  
111 S: [??] Fifteen...[??] We got...we got a family.  
112 T: You got a family. So how many members in the family altogether? That is the number we  
113 started with. Altogether. Altogether. One, two, three..  
114 S: Fifteen?  
115 T: Okay let's double check.  
116 S: One, two three...one two, three...  
117 T+S: One, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen,  
118 fifteen...  
119 S: We have three remainders  
120 T: Okay so what is the big number at the beginning? How many did you start with? How many  
121 beans did you start with?  
122 S: Fifteen?  
123 T: Fifteen. So what does this mean?  
124 T+Ss: Fifteen divided by...  
125 S: Four equals three with...  
126 T: With a leftover...?  
127 S: With a leftover...  
128 S: A remainder...  
129 T: A remainder of?  
130 S: A remainder of three!  
131 T: A remainder of three. With a remainder of three. And you're writing it down. That's going to  
132 be my next step—to ask you for your whiteboard.

133 [00:09:12]  
134 T: Okay, one for this one, one for this one...help...  
135 S: [???)  
136 T: Well you chose to sit like this, like that haha...keep going...keep going...  
137 Ss: *[students working]*  
138 T: So far so good. Even? They're all even, right? How many does each one have so far? Two.  
139 Can we still divide these?  
140 S: No  
141 T: Hmm...I think we have to stop here, right? Now you are ready for the dialogue. Who's going  
142 to be A and who's going to be B?  
143 S: I don't know where my whiteboard is!  
144 T: Oh...she's going to get it. She's going to get it.  
145 [00:10:10]  
146 S: Fifteen divided by six equals two with three leftover.  
147 T: That's wonderful. That's it! With three leftovers or we can say with a remainder of...?  
148 S: Three  
149 T: Three. Now you're ready for another round! Can you imagine doing this when you're older?  
150 And you have your kids? You will need to know how to do division! You will need to know how  
151 to do division when you have your kids and you bring them, like the jelly beans, or when you  
152 bring them marbles and you want all your kids to have...  
153 S: The same  
154 T: ...the same amount. You got it, yes. You need to know how to divide. You're set and ready  
155 to go.  
156 [00:11:02]  
157 T: Okay, so what do we have here? Count how many beans here.  
158 S: One, two, three, four, five, six, seven...  
159 T: Seven. How many here?  
160 S: Six  
161 T: One, two, three, four, five, six. So if this one has six and that one has seven, you need one  
162 more there. Okay, count again. Brian, count. Put them in order like this. Okay, count.  
163 S: One, two, three, four, five, six, seven.  
164 T: Seven. Count how many you have here. Put them in order. Remember your number, Brian.  
165 Seven. Okay.  
166 S: One, two, three, four, five, six, seven.  
167 T: So have they been divided equally?  
168 S: No  
169 T: How many do you have?  
170 S: Seven  
171 T: Seven and how many does he have?  
172 S: Seven  
173 T: So have they been divided equally?  
174 S: Yes?  
175 T: Yes because seven and seven is the same as seven. Equals seven. So you're ready for the  
176 dialogue. Who's going to be A and who's going to be B? Okay.  
177 S: What does this mean?  
178 T: Fifteen...

179 S: Fifteen...two...  
180 T: Divided...  
181 S: Fifteen divided by two equals...um...seven...and...um...  
182 T: With?  
183 S: With one bean  
184 T: With one leftover  
185 S: With one leftover.  
186 [00:12:32]  
187 T: There you go! Good job! See how fun this can be? Try it one more time and then I'm going to  
188 call everybody to the carpet.  
189 [transition]  
190 T: Alright, it is time to put your materials away.  
191 Ss: *[students talking and moving about]*  
192 [audio cuts to class discussion]  
193 T: I heard some great conversations when you were working with your division problems. So  
194 before we go, there's a couple things we want to do. Now before I let you go, I want you to think  
195 and tell me—I'll be your scribe here—a scribe is a person who takes notes like a secretary—I  
196 want to know all the different...I want to know all the different words that come to your mind.  
197 I'm going to need deep thinkers. So right now you're being mathematicians 'cause we'll be  
198 working with numbers, but also good thinkers...great thinkers...because I want you to think  
199 about all the different, all the different words that come to your mind when you see the word  
200 division or when you hear your teacher say, "today, boys and girls, we're going to work on  
201 division". What ideas come to your mind? What is it that you think?  
202 [00:13:58]  
203 S: Ah...  
204 T: Mhmm. This is thinking time, okay? Thinking time. I'm getting ready. I'm getting ready for  
205 some great words that I'm going to hear. Please be patient because I know that you're going to  
206 be bombarding me with words and I don't write that fast. Yes, even for ELD, same thing. So,  
207 think about it. What are some of the words that come to your mind when your teacher says  
208 "today, we're going to work on division"?  
209 [00:14:38]  
210 T: Alexis, I'm ready.  
211 S: Fourteen.  
212 T: So what comes to your mind? Fourteen? I can't think when I hear those noises. Okay.  
213 Fourteen. Okay. What else comes to your mind when division—Christine?  
214 S: Equal sets?  
215 T: Equal sets. Are you looking at how I write the words? That's important too. Equal  
216 S; Sets  
217 T: ... sets! Space here. Sets. Sets. Oh! I see plural words. They're right there. They're not just  
218 "set", but "sets".  
219 [00:15:35]