## Decomposing Numbers with Addition (Kindergarten)

[SILENCE]
TEACHER: [SPEAKING ENGLISH] OK. Ready? Let's begin with decomposing. Remember when we decompose? How many cubes are there?

ALL: 6 cubes.
TEACHER: You're going to say, "I am A. I am-- B."
ALL: B
TEACHER: Remember what you want to use. I
STUDENTS: I
TEACHER: I see that on the back, you have-- and why? Yes, I agree. ALL: I don't agree.
TEACHER: OK. ALL: And there are-- TEACHER: Ready?
STUDENT: Plus is equal to-- TEACHER:
Plus is equal. OK. Ready? Decide, who is A, and who is B?
STUDENTS: I am. I am. I am A. I am A.
TEACHER: Ma-- Baby, what are you?
STUDENT: I am A. TEACHER:

Maya?
MAYA: I am B. TEACHER:
Ellie?
ELLIE: I am B.
TEACHER: Very good. OK. If you are B, I want you to go get the cubes, please. If you are B. STUDENT: And, I see on the back--
[CROSSTALK]

TEACHER: Do you have 3 on the back, Jaden? You agree or you don't agree? Why? How many do you have on the back? How many on the back?

STUDENT: 4.
TEACHER: So, 2 plus-- Sofia?
[CROSSTALK]
2 plus-- Very good.
[CROSSTALK]
Is 6. [SPEAKING ENGLISH] Look. How many do you have here? How many do you have here? 5. Count them.

STUDENT: 1, 2, 3, 4, 5
[APPLAUSE] TEACHER: Very
good. I want A to put the cubes away. Look here. Sarah and Haley, turn around.
STUDENT: Wow.

## [SPEAKING ENGLISH]

TEACHER: In winter there are-- sit down, children.
[SPEAKING ENGLISH]
There is a snowman. This is our snowman, yes. Very good. OK. The snowman has 3 parts. This section is--

STUDENTS: On top.
TEACHER: On top. This section is-- STUDENTS:
In the middle.
TEACHER: And this section if--
STUDENTS: On the bottom. TEACHER: On
the bottom. OK. Do this with me. Ready? Top. Middle. Bottom. The snowman needs 5 buttons. STUDENT:

The same [SPEAKING ENGLISH] TEACHER:
Yes. He only has one arm. He needs 5 buttons. Where can we put the buttons? Baby, where can I put my buttons?

STUDENT: 2-- 2 in the middle--
TEACHER: 2 in the middle. How many can I put on the bottom?
STUDENT: 3 in the middle-- 3 on the bottom.
TEACHER: 3 on the bottom. I agree or I don't agree?

STUDENTS: Yes, I agree.
TEACHER: Why?
STUDENTS: Because 2 plus 3 equals 5.
TEACHER: 2 plus 3 , is equal to 5 or 6 ?
STUDENTS: 5.

TEACHER: 5? Let's count them. 1-- STUDENTS:
$1,2,3,4,5$.

TEACHER: It equals 5.
STUDENT: It's a [SPEAKING ENGLISH]. One more. One more would be 6.

TEACHER: Yes. Yes. If there were one more, it would be 6. Yes. Very good. How do I write that 2 plus 3 equals 5 ? Lucy, how do I write it?

LUCY: 5-- TEACHER:

5--
LUCY: equals--
TEACHER: equals--
LUCY: 2 plus 3.
TEACHER: 2 plus 3. I agree or I don't agree?

STUDENTS: Yes, I agree.
TEACHER: Thalia.

THALIA: 3 plus 2 equals 5. I
agree or I don't agree?

STUDENTS: Yes, I agree.
TEACHER: Haley.
HALEY: 2 equals 3 plus 5.
TEACHER: [SPEAKING ENGLISH]
STUDENT: Yes, I agree. No, I don't agree.
TEACHER: I agree or I don't agree?
STUDENTS: No, I don't agree.
TEACHER: Why not? What can we do?
STUDENT: I am not 2. No, I don't agree. 5 and-- 5 plus 3 equals 8 .

TEACHER: Emily says that 5 plus 3 equals--
STUDENTS: 8.
TEACHER: Oh, 8. What can we do? Haley.
HALEY: 8. TEACHER: Do you
know what to do?

HALEY: 2 plus?
TEACHER: Oh. Haley says that 2--
HALEY: Plus.
TEACHER: Haley says that 2 plus-- What number is this? HALEY:
3.

TEACHER: 3. What goes here? It's-- equals 5. I agree or I don't agree?
STUDENTS: Yes, I agree. TEACHER:
Very good, Haley. Jaden. JADEN:
5--
TEACHER: 5?
JADEN: Plus--
TEACHER: Plus-- JADEN:
3-- equals--
TEACHER: Equals-- JADEN:
2.

TEACHER: 2.
STUDENTS: I don't agree.
TEACHER: 5 plus 3-- Jaden, let's see.
STUDENTS: Equals 8.
TEACHER: Show me 5 plus 3. How many are there? Jaden. Count them. Count with me. 1--
JADEN: Equals 2, 3, 4, 5, 6, 7, 8.
TEACHER: 8. Are there 8 buttons, Jaden? Yes or no? JADEN:
No.
TEACHER: How can we fix this, Jaden? What can I-- You have to change them, Jaden. Look. Here, Jaden, I am going to write, equals-- JADEN:

Equals--
TEACHERS: Equals-- And here I'm going to write-JADEN: Plus--

TEACHER: Plus. I agree or I don't agree?

STUDENTS: Yes, I agree. Opposites. Opposites.
TEACHER: What are opposites? Let's see, come up. Show me, what are opposites? OK. Lucy says that this and this, are opposites. Are they opposites?

STUDENTS: Yes, I agree.
TEACHER: They are equal but they are opposites.
STUDENTS: Opposites.
TEACHER: Very good. Thank you. Christopher.
CHRISTOPHER: 2?
TEACHER: 2-- CHRISTOPHER:
Plus--
TEACHER: Plus--
CHRISTOPHER: 3--

TEACHER: 3--
CHRISTOPHER: Equals--
TEACHER: Equals-- CHRISTOPHER:
5.

TEACHER: 5.
STUDENTS: Yes, I agree. STUDENT: I don't agree.
TEACHER: Why?
STUDENT: Because-- like a 3 goes there-- [SPEAKING ENGLISH]
TEACHER: But if they equal--
STUDENT: [SPEAKING ENGLISH] They are equal.
TEACHER: They equal. So, I agree or I don't agree?
STUDENTS: Yes, I agree.

TEACHER: Lucy, are there 5 buttons still there? LUCY:
Yes.

TEACHER: Yes. There are still 5--
LUCY: Buttons.

TEACHER: Buttons. OK. So, now I want my snowman to have 8 buttons. How many buttons does my snowman need?

STUDENTS: 8.

TEACHER: 8 buttons. With a friend, go to the table and put 8 buttons on your snowman. A. Who is A? If you are A put your finger on your nose. OK. A is going to write first. Second, whose turn--?

STUDENTS: B.

TEACHER: B. And then, you'll do it. Yes, there is a [INAUDIBLE]. A, come for the paper. But first start this. You have A. Are you A? OK. So, Matthias is first. How many do you have Matthias?

## [CROSSTALK]

Elliot, how many are on the top? ELLIOT:
5.

TEACHER: 5. Cash. How many are-- there are 5 in the middle. How many on the bottom? ELLIOT:
3.

TEACHER: 3. Yes. Excellent. Christopher, how many does A have in the middle? 2. How many on the bottom? CHRISTOPHER:
6.

TEACHER: Christopher, 6 equals how many? CHRISTOPHER:
8.

TEACHER: 8. I agree or I don't agree?
STUDENTS: Yes, I agree. TEACHER:

OK. Now, it's Christopher's turn. Why do you have a 0 ?
STUDENT: 8 plus 0 equals 8 . TEACHER:
8. Where is the 8 ? In the middle or on the bottom? In the middle. Grace, what is on the bottom?

STUDENTS: 7, 8-- GRACE: 0.
TEACHER: 0 . Very good. Let's see, this. How many are in the middle? STUDENT:
2.

TEACHER: 2. How many are on the bottom?
STUDENT: 8. TEACHER:
8. Let's count them. 1, 2, 3. Count. 4.

STUDENTS: 4, 5, 6, 7, 8.
TEACHER: If you have 8 on the bottom and 2 in the middle-- Look-- 8, 9. STUDENT:
10.

TEACHER: 10. Do we want 10 buttons?
STUDENT: No.
TEACHER: No. How many buttons do we want? STUDENT:
8.

TEACHER: 8. What can we do? Come on William, write the number. William, write the number. 2 in the middle.
[APPLAUSE]
Put your pencil away and sit on the rug with your paper. With a friend. If you are A, I need you to come for the cubes, A. How did you make 8 ?

STUDENT: 3 equals 8.
TEACHER: Where is 3 , Toya?
TOYA: In the middle.

TEACHER: 3 is in the middle. 1. Count. 2, 3. Thalia said that 3 is in the middle.
STUDENT: 5 on the bottom.

TEACHER: 5 on the bottom. Count.
STUDENTS: 1, 2, 3, 4, 5. TEACHER: I
agree or I don't agree?
STUDENTS: Yes, I agree.
TEACHER: How did you write it, Toya? How did you write it? What do you have here?
THALIA: 3 plus-- TEACHER: [SPEAKING
ENGLISH 3.

THALIA: 3. 5 equals 8.
TEACHER: Thalia and Joaquin wrote 3 plus 5 equals 8. If you have that, then put down a cube. If you have 3 plus 5 equals 8 . Put the cube down-- If you have 3 plus 5 . Where are your cubes? Who is A? Let's see the cubes. This says 3 plus 5 equals 8? STUDENT:

No.

TEACHER: Then you don't have-- Gavin and Shirley, how did you get 8 ?
STUDENT: 1.
TEACHER: Where?

STUDENT: 1 on the top. And the 3--
TEACHER: On top or in the middle?
STUDENT: In the middle.
TEACHER: OK. Listen. Gavin and Shirley say 1 in the middle. How many on the bottom, Gavin and Shirley? STUDENT:
7.

TEACHER: 7. Count with me.

STUDENTS: 1, 2, 3, 4, 5, 6, 7. I
agree or I don't agree?
STUDENTS: Yes, I agree.
TEACHER: How did you write it? Shirley, what did you write?
SHIRLEY: It equals-- 1--

TEACHER: 1--

SHIRLEY: Plus 7 equals 8.
TEACHER: Shirley and Gavin wrote 1 plus 7 equals 8 . If you have 1 plus 7 equals 8 , put the cube on the paper. Do you have it?

## [CROSSTALK]

You have 1 plus 7 equals 8? Look, you have it? You have 1 plus 7 equals 8? You have that? It's this. You have 1 plus 7 equals 8 ?

STUDENT: Yes, I agree. Yes, I agree. TEACHER:

Do you have it Maya? You have 3. But, are they like this or this--? Or not like this? STUDENT:
Yes.
[SPEAKING ENGLISH] TEACHER:
What? What is the opposite?
STUDENT: 1 plus 8 and 7 . No. 7 plus 1 equals 8.
TEACHER: OK. Look what happened, Maya. Maya says that 7 plus 1 equals 8 . Yes, is that right? STUDENT:

Yes.

TEACHER: Yes. Why?

STUDENT: Yes, I agree.

Why?
STUDENT: Because it is the same. They're opposites. TEACHER:
Because it is the same. It is the opposite.

STUDENT: It's the same, only that they are opposites.
TEACHER: Elliot. What did you do, Elliot? Where is 4? Hudson, Christopher. Where is 4, Elliot?

ELLIOT: 4, and--
TEACHER: Are there 4 in the middle or on the bottom?

ELLIOT: 4 on the top. TEACHER:
In the middle.

ELLIOT: In the middle.
TEACHER: 4 in the middle? How many on the bottom?
ELLIOT: 4.
TEACHER: 4 on the bottom. Very good Elliot. Cash. I agree or I don't agree?
STUDENTS: Yes, I agree.
TEACHER: There are 4 in the middle and 4 on the bottom. How did you write it? What goes here? What number goes here, Elliot? 4 plus--

ELLIOT: Plus 4 equals--
TEACHER: Equals--

## ELLIOT: 8.

TEACHER: Equals 8. If you have 4 plus 4 it equals 8 . Put the cube on your paper. Do you have 4 plus 4 equals 8 ? Emily and Maya. and Bebé. Let's do one more?

STUDENTS: 0 plus 8.
TEACHER: 0 plus 8 . Where is the 0 ? In the middle or on the bottom?
STUDENT: On the bottom. TEACHER:
You have on the bottom--
STUDENT: 7.

TEACHER: You have 8 on the bottom. OK. Count with me. How many are there? 1--

STUDENTS: 2, 3, 4, 5, 6, 7, 8.
TEACHER: 8. I agree or I don`t agree?
STUDENTS: Yes, I agree.
TEACHER: How did you write it? How many are there? What did you write? What does the paper say? STUDENTS:
6. 8 plus 0 equals 8 . And 0 plus 8 equals 8. TEACHER:

Very good. If you have 8 plus 0 equals 8 or 0 plus 8 equals 8 , put down the cube. I want you to see one more thing. Here. What is the opposite of 3 plus 5 equals 8 ? What is its opposite?

STUDENTS: 5 plus 3 equals 8 or 8 equals 5 plus 3 . Or 8 equals 3 plus 5. TEACHER:
Yes. Very good. OK. Excellent. I want B to put the cubes away. And bring me the papers. B, put the cubes away. And bring me the papers. One more thing. You all have your snowmen. You're going to make a book with the snowmen. You snowmen can have 1 button,

STUDENTS: 2 buttons. 3 buttons.

TEACHER: 4, 5, 6, 7, 8,9 , or 10 buttons. They can have as many buttons as you want. The buttons have to go in the middle and on the bottom. Where do the buttons go?

STUDENTS: In the middle and on the bottom. TEACHER:

On the bottom. I want that everyone, except Joaquin and Thalia, switch friends. Switch friends. Ready? Find a new friend. 6, 5. Who is A? Who is B? Ask them.

STUDENTS: I am A. I am A.
TEACHER: Say, "I am A. I am B." Who is A? Who is B?
STUDENTS: I am A.

TEACHER: Go make your book.
STUDENTS: I am A. I am B.

TEACHER: [INAUDIBLE] you are B. Maya you are A. B will begin. Go sit down. B, begin. B goes first. Who is B? B goes first. How many do you have in the middle? Write it.

STUDENT: 1, 2, 3, 4, 5, 6, 7. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
[SPEAKING ENGLISH]

TEACHER: Maya, look. Camilia, wrote 4 plus 4 equals 4 . You agree or you don't agree?
MAYA: Yes, I do-- No--

TEACHER: Why not?
MAYA: Because 4 plus 4 does not equal 4. It equals 8 .

TEACHER: OK. Fix it. She told you. Let's see. Count. See if it's 8 . Let's see if--
CAMILA: 1, 2, 3, 4, 5, 6, 7, 8.
TEACHER: Do you agree with Maya? Yes or no.
CAMILA: Yes, I agree.
TEACHER: How many do you have in the middle, Camila? How many on the bottom? 4. What are you writing?

## [CROSSTALK]

Where do you put the 2 buttons? In the middle or on the bottom?
STUDENT: In the middle.
TEACHER: 5 buttons, where Jared?
JARED: On the bottom.
TEACHER: Who did this?

STUDENT: Hopin.
TEACHER: How many in the middle, Hopin?
[CROSSTALK]
STUDENTS: 1, 2, 3, 4.
TEACHER: Look. How many in the middle? STUDENT:
3.

TEACHER: 3. How many on the bottom?
STUDENT: 2.

TEACHER: Do the buttons equal this? No. How many do you have in the middle? How many at the bottom?

STUDENT: It's 9. It's 9.

TEACHER: William, let him do it. OK. Very good. Do one more. Do one more. Marly, do one more. Make one more snowman. Did you make your snowman? One more minute. One more minute. Let's see. Tell me, what did you do here?

STUDENT: 1 equals 1 plus--
TEACHER: Where is 1 ? Is it on the top? In middle. 1 in the middle. Camila, where is the 1 ? In the middle, say, "In the middle." And where are the 4? 4, on the bottom. OK. Very good. Go to the rug with your book. With your friend. Go share your book with another group. Marly, Emily, Sofia and Hudson. Show your book.

Let's see, show your books. What did you do? That's good. Listen to William. William, give the book to Hoane, please. Don't grab it anymore. No. OK. Listen to Sarah. Whose turn is it?

## [CROSSTALK]

Listen to Thalia. Show your book. Whose turn is it?
STUDENT: [ENGLISH]
TEACHER: OK. Now, it's your turn, Soliere.
SOLIERE: It equals $1,1,1$.
TEACHER: I agree or I don't agree.
SOLIERE: Yes, I agree.
TEACHER: Very good. Does 1 plus 2 equal 2? I agree or I don't agree?
STUDENT: No, I don't agree.
TEACHER: What do we have to do? What does this have to be?

## STUDENT: 2.

TEACHER: You have 2. Are there 2 on the bottom? STUDENT: No.
TEACHER: How many are on the bottom?
STUDENT: 1.

TEACHER: 1.
[CROSSTALK]
Excellent, Mindy. Ready?
[APPLAUSE]
[SPEAKING ENGLISH]

