

Description: Towers with Stephanie and Dana, Clip 1 of 5: Introducing and working on the problem Content: Harding Elementary School Researcher: Professor Carolyn Maher Tape: Towers with Stephanie and Dana Date: 10/11/90	Authors: Madeline Yedmen Verified: Robert Sigley Date: 12/07/13 Page: 1 of 4
--	---

Line	Time	Speaker	Transcript
1		R1	Alright we are going to do something really different today. We're going to build towers with the Unifix cubes. Is that okay? There are certain rules though that you use to do that. Okay first of all, everyone should know what a tower is. What do you think a tower is with Unifix cubes? Billy.
2		Billy	When you put things together, like straight up.
3		R1	Like this? Would that be a tower if I were standing them up like this?
4		Billy	It's too small
5		R1	Does that look like a tower?
6		Billy	No
7		R1	It's little; it's a little tower. Okay, what we're going to do today is okay. We're going to present that we have some pretty teeny tiny people that we're building towers for. We're going to build towers today that have four stories to them. Okay so four blocks to them. Okay so every tower we make today is going to have four, okay? Alright, you're going to get two colors of Unifix cubes, red and blue everybody is going to get. Your job is to find out how many different looking towers you can make that are four high. Okay they all have to be four high, but I want to see as many different ways as you can do that possible and I want you to talk about it with your partner and again it's like the shirts and pants, you have to convince that you found them all. Okay so I'm going to pass out the problems and you can read this.

<p>Description: Towers with Stephanie and Dana, Clip 1 of 5: Introducing and working on the problem Content: Harding Elementary School Researcher: Professor Carolyn Maher Tape: Towers with Stephanie and Dana Date: 10/11/90</p>	<p>Authors: Madeline Yedmen Verified: Robert Sigley Date: 12/07/13 Page: 2 of 4</p>
---	--

8		Stephanie	One, two, three, four. One, two, three, four.
9		Dana	No, how many different looking towers.
10		Stephanie	Different looks towers that we can make that are four stories high?
11		Dana	Four squares
12		Stephanie	Four squares. This one has four squares and my tower is flat.
13		R1	Okay
14		Stephanie	One of my towers are flat
15		R1	You're challenged to find out how many of these you can make and there is the problem in writing. You might want to take a look at that.
16		Stephanie	How many you can make using different kinds of things?
17		R1	Each one has to be different, but they all have to be four high. (Girls begin to create towers flat on the table) No, towers have to go this way.
18		Dana	Aw
19		R1	Yes they do. Because this is the point on the tower.
20		Stephanie	Great how many towers can we make? Here Dana I'm gunna read this out okay?
21		Dana	Ohhh, we can make them different colors.
22		Stephanie	Yeah, and Dana listen to this. (Reading directions) Your group has two different color Unifix cubes... You're right Dana! You're a genius; I'm gunna make this kind of pattern. Two, two. And then I could make red on the top and blue on the bottom. That's a different tower. Then I could make all

Description: Towers with Stephanie and Dana, Clip 1 of 5: Introducing and working on the problem Content: Harding Elementary School Researcher: Professor Carolyn Maher Tape: Towers with Stephanie and Dana Date: 10/11/90	Authors: Madeline Yedmen Verified: Robert Sigley Date: 12/07/13 Page: 3 of 4
--	---

			red, all blue.
23		Dana	Look at this!
24		Stephanie	And I could make one, one, one, one. There, these things are easy. Alright so I'd have to put red on the bottom, and this on the top and red here and this here. Dana look these are my combinations. Okay? Ah ha, I know a different combination. Red one, and one, two, three, one. This is simple. Then two, wait wait wait. Two, one.
25		Dana	One of each color.
26		Stephanie	Oh nuts I ran out of them. I just have blue. I'm gunna have to use some of your blues Dana. I don't have enough of them. I'm gunna have to use some of your blues, and I'll give you a couple of my reds. Cause I need some of your blue. Um, one red. Then the others blue. God these can be put in many different ways.
27		R1	They sure can! Are you two working together?
28		Dana	After this we are..
29		Stephanie	Dana that would be a better idea. If we worked together then we would have more blocks and more combinations
30		R1	You really should. So why don't you compare and see which one of those you could eliminate.
31		Stephanie	Lets see what we can eliminate. We can eliminate...eliminate that one. And we could use these blocks for something. We can (comparing towers) I know I have this some place. I think I have it. We don't eliminate this one, we can put this at the end of the line.
32		Dana	It has to be the same one as that red one.

Description: Towers with Stephanie and Dana, Clip 1 of 5: Introducing and working on the problem Content: Harding Elementary School Researcher: Professor Carolyn Maher Tape: Towers with Stephanie and Dana Date: 10/11/90	Authors: Madeline Yedmen Verified: Robert Sigley Date: 12/07/13 Page: 4 of 4
--	---

33		Stephanie	I know, I know. You can eliminate this one. Which we could use that one.
34		Dana	Look you have
35		Stephanie	Yeah, eliminate that one. No, no, no, nope, no, no, we can keep this one over here. The all blue eliminate it.
36		Dana	You have all blue?
37		Stephanie	Yes!
38		Dana	You have all red
39		Stephanie	Eliminate those. I don't have all blue at the bottom... I don't have all red at the bottom and blue at the top. So far none of this, no, no, no, no, nope, yup eliminate it. And this one I think I have actually, I'm not sure. Yup, eliminate it. A keep. Now look how many more blocks we have to use.
40		Dana	You're right.