

HILLARY LEWIS: I want to remind you what we did last week. And actually, all these people here don't know what we did last week. So I thought we'd start by looking at this grid. You remember this poster that we had last week?

STUDENTS: Yeah.

HILLARY LEWIS: Yeah? I thought maybe we'd take a minute and kind of refresh our memories about what this poster is. So could you take a minute and just turn and talk with your partner about -- try to remember what this poster is, and I'm going to have somebody explain it to our visitors what it is. So just take a moment with your partner.

STUDENT: It's sorting the triangles into isosceles, acute, right, obtuse, scalene ...

STUDENT: Sorting them into scalene, isosceles, acute, right, and obtuse.

STUDENT: Yeah, it's sorting them, like acute and scalene, right and equilateral, obtuse and isosceles. It's sorting them out into all different categories. So, the horizontal ...

HILLARY LEWIS: If I can have you back, you wrap up your conversations. So, it sounds like you were remembering what this grid was. Now, I want to make sure all of our visitors know what it is, and we don't have time for you to tell them all the steps we did to create this, but could somebody -- would somebody be willing to explain what this is in a sentence or two so that our visitors know what it is? Do we have anybody willing or a few of you willing? Make sure I can see your name tags, that they are up nice and high. So Suyash, would you be willing to explain it?

STUDENT: We were talking about types of triangles and their angles, like acute, right, and obtuse and different types like scalene or isosceles, equilateral.

HILLARY LEWIS: Did anybody have anything to add on to his explanation?

STUDENT: So like, the way you -- so like, basically what Suyash said, you're sorting them by angles into acute, right, and obtuse. And you look at the sides to sort them with scalene, isosceles, and equilateral.

HILLARY LEWIS: So we sorted them by the angles: acute, right, and obtuse. And then by the sides: scalene, isosceles, and equilateral. Suyash, does that work with your explanation? Okay. You know what, last week we talked about the sides and the angles, but I forgot to write it on the poster so I wanted to do that right now since you mentioned that, Bennett. You said this was how we categorized them by angles?

STUDENT: Yeah.

HILLARY LEWIS: Okay.

STUDENT: And the top is sides.

HILLARY LEWIS: And then this was sides?

STUDENT: Yeah, sides.

HILLARY LEWIS: Thank you. So, something else we talked about last week -- hang on just

a minute -- something else we talked about last week was what each of these words mean. And we wrote down definitions, but I didn't keep that poster. I wanted to write these definitions back in, and I heard some of you talking about those definitions in your groups, in your pairs just now. So let's start with our angles. Would anybody be willing to share a definition for one of the angles? And what was your name -- Neel? Neel, what was one of the angles? What was our definition?

STUDENT: Acute is an angle that is less than 90 degrees.

HILLARY LEWIS: An angle that is less than 90 degrees, so less than -- my little triangle is going to be in my way, I'm going to move you over -- less than 90 degrees. Okay, what about another, right or obtuse? Who wants to define that? Nia?

STUDENT: Obtuse is an angle that is more than 90 degrees.

HILLARY LEWIS: Okay, so an angle that's more than 90 degrees. And when we were talking about the triangles what did we say about that?

STUDENT: Um.

HILLARY LEWIS: Do you remember? Do you want to call on somebody to help you?

STUDENT: We said that an obtuse triangle has to have only one obtuse angle because if you put three obtuse tri-- uh, angles, it won't make a triangle. It's impossible either with two or three obtuse angles. So it has to be only one.

HILLARY LEWIS: Okay. Do you remember the -- did you want -- you look like you wanted to say something. No. So we talked about an obtuse triangle had one obtuse angle, okay. And you said that obtuse was an angle that was what again?

STUDENT: More than 90 degrees.

HILLARY LEWIS: More. Did you say "greater than" the first time? Or "more"? You said more than 90 degrees. More than 90 degrees. So that angle -- it had one angle that was more than 90 degrees. Now we're left with right. Who wants to tell me about a right?

STUDENT: A right angle is exactly 90 degrees.

HILLARY LEWIS: A right angle is exactly 90 degrees. And how does that relate to our triangle? Would you like to call on somebody to help you out? Or did you want to give it a go? What about it? Call on somebody who hasn't talked yet.

STUDENT: It's like a right angle because see how number E on the chart, it has -- it's in the right angle category? Because if you tilt it more to the left, then it still looks like a directly -- like, corner of a square box, like a right angle. With a directly straight line up, which is right, 90 degrees.

HILLARY LEWIS: So if we had this -- let's see if I can pull it up without making a mess. You said ...

STUDENT: Tilt it more this way, then it goes directly up so that's 90 degrees exactly.

HILLARY LEWIS: Okay. You're saying, "Oh, yeah." So why did you "Oh, yeah"?

STUDENT: [inaudible] a little more left like the little square, then straight up for 90 degrees.

HILLARY LEWIS: Okay, so what is 90 degrees?

STUDENTS: Angle, that angle.

HILLARY LEWIS: That angle, so this angle here we talked about? Max, you're dying to say something more.

STUDENT: Also, for our, the same thing I said -- so the same thing for the right triangle, it has to have only one right angle.

HILLARY LEWIS: Okay. It only has one. Just like the obtuse has one obtuse angle, the right triangle ...

STUDENT: The right triangle has one right angle.

HILLARY LEWIS: So it just needs one -- as long as it has the one right angle? Okay, so -- and we said that that right angle is 90 degrees. Did you -- you're saying "Oh yeah." So why did you "Oh yeah"? Okay. All right, let's look at our sides. What we're -- and I'm going to run out of room here, so I'm moving G ahead of time to get that -- so do you remember what our definitions for our sides were?

STUDENT: All the sides are the same, but some have the ratio of a bigger triangle, but the same thing for the smaller one.

HILLARY LEWIS: Okay, but all the sides are the same? It doesn't matter the size, is what you're saying? Okay, did you hear that? So all the sides are the same. And I think last week I didn't use this word, but I wanted to throw at you today, sometimes we use the word *congruent* when we say that. So, I am going to write that word down today. So all the sides are congruent. Okay? So all sides -- oops, can I get this without making a mess? -- are congruent. Maybe. Natasha, what would you like to talk about?

STUDENT: All the sides are different sizes.

HILLARY LEWIS: All the sides are different. Then we have isosceles left. What is isosceles? Is it Hana? I can't see from here -- Hana.

STUDENT: There's at least two sides equal.

HILLARY LEWIS: Two sides equal? Two sides equal. Okay.