Leona & May:　Hi, we are from class 2D and today we're going to tell you something about math.

Leona:　Hi, morning. (to 4 brothers) You guys seem so happy. What puts you in such a good mood?

Johnny:　Hi. I'm Johnny and these are my younger brothers Harry, Felix and Tommy. It's a bit strange but all my younger brothers are much taller than me!

Tommy:　We're moving into a new house next month. We are so excited about that!

Harry:　Yeah, new house!!　I just can't wait to move in.

Felix:　But there's one problem with the new home – we need to choose the flooring.

May:　Excuse me. What does the word 'flooring' mean?

Johnny:　Flooring (地板材料) means the material that we use to cover the floor.

May:　Oh, I see. Thanks.

Felix:　There're so many types of things that we can use to cover the floor. If you ask me which one is the best, I just can't give you an answer.

Leona:　You guys are lucky. I know there's somebody who can help you. Hold on a second.　Iris, Shirley come on up!

(Iris and Shirley come up on stage, Leona and May leave)

Iris:　Hi. My name is Iris, and her name is Shirley.　We are working in a shop that sells tiles (地磚).

Shirley:　So how may I help you? Do you want to buy some tiles?

Tommy:　Yes. We're wondering what we can use to cover the floor at our new home. Do you have any suggestions for us?

Iris: Do you have any pattern that you like most?

Harry: Oh I got one. My favorite cartoon character is Doraemon.
          How about if we use tiles in the shape of Doraemon to cover the floor?

Iris: Um… I don't know. Doraemon is nice and lovely, but I don't think you can
          use Doraemon in that way.

All 4 brothers: Why not?

Shirley: The reason is that Doraemon is not a tessellated figure. (密鋪圖形)

All 4 brothers: What?   Tessellated figures?   What does that mean?

Iris: Just calm down, okay?   Maybe Jason and Catherine can help you understand
          it because they are so good, so brilliant at math. Jason, Catherine, come here!

          (Jason and Catherine come up on stage, Shirley leaves)

Catherine: Please don't say that we're brilliant at math again. We're doing just OK
              in math. You've made us feel all embarrassed.

Jason: Yeah, I'm flushing red now.

Iris: OK, OK. Sorry.   Can you tell us what tessellated figures are?

Jason: When you put some figures together side and side, and if they can cover a
           surface without leaving any gaps or overlaps (沒有隙或重叠), they
           are called tessellated figures.

Felix: Um……Sorry, I still don't get it.

Catherine: OK. Let me ask you some questions.   Can equilateral triangles
               (等邊三角形) fully cover a surface without leaving any gaps?

Tommy: Let me see…… Um...Yes, they can. There is no gap between these
          triangles.

Catherine: What about rectangles?

Johnny: Let me see……Um…Yes, they can, too. There is no gap between them.

Catherine: What about regular hexagons (正六角形)?

Felix: Let me see…...Um… Yes, they can!

Catherine: So, equilateral triangles, rectangles and regular hexagons are all tessellated figures because they can fully cover a surface without any gaps.

Jason: Now let's try Doraemon.   If we put many Doraemons together side by side, can they fully cover a surface without any gaps?

Harry: Let me see……Um…No, they can't.   There are some gaps between Doraemons.

Iris :   So Doraemons are not tesellated figures. That's why I said you guys couldn't use tiles in the shape of Doraemon to cover the floor.

Harry: Oh my! Doraemon is my best friend in the world. When I feel unhappy, I'd talk to Doraemon and that makes me feel happier. My life will be a sad one if I don't get to see Doraemon every day.
(Harry cries……….)

Johnny: Oh, poor Harry!   Is there anything that we can do to help him?

Catherine: You know what?   Maybe you can use rectangular tiles to cover the floor at your new home. On each tile, you can still put Doraemon's head on it, like this… (put Doraemon's heads on the tiles)

Jason: Catherine, you're a genius (天才)! That way there's no gap between the tiles, while Harry can see Doraemons on the floor every day!

Harry: That's wonderful!   Now I get to see Doraemon every day! Hurray!
(everyone leaves the stage, Leona and May come up)

Leona: So that's the story about tessellation. If you're interested in this
          topic, you can ask your math teacher…
May: Or you can go and read chapter 6 in the F.2 math textbook 2A. Thank you
          very much and we hope you enjoyed our presentation.

THE END