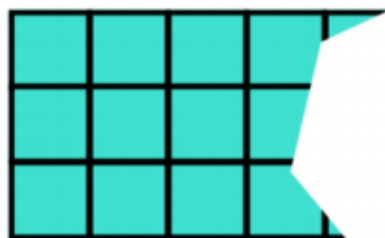# Maths Extension Questions – 25.01.21 – 29.01.21

Dexter has taken a bite of the chocolate bar.

The chocolate bar was a rectangle.
Can you work out how many squares of chocolate there were to start with?

This rectangle has been ripped.

What is the smallest possible area of the original rectangle?

What is the largest possible area if the length of the rectangle is less than 10 squares?

Here is a rectilinear shape.

Using 7 more squares, can you make a rectangle?
Can you find more than one way?

Look at the shapes. Can you spot the pattern and explain how the area is changing each time?

Draw the next shape. What is its area?

Can you predict what the area of the 6th shape would be?

Can you spot any patterns in your answers?

Two children have measured the top of their desk. They used different sized squares.

Dora

The area of the table top is 6 squares.

The area of the table top is 9 squares.

Alex

Who used the largest squares?
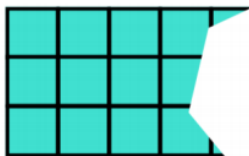How do you know?

Dexter has taken a bite of the chocolate bar.

The chocolate bar was a rectangle.
Can you work out how many squares of chocolate there were to start with?

This rectangle has been ripped.

What is the smallest possible area of the original rectangle?

What is the largest possible area if the length of the rectangle is less than 10 squares?

Smallest area – 15 squares.

Largest area – 30 squares.

Two children have measured the top of their desk. They used different sized squares.

Dora

The area of the table top is 6 squares.

The area of the table top is 9 squares.

Alex

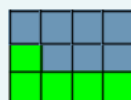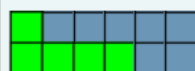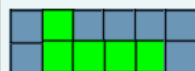Who used the largest squares?
How do you know?

Dora needed fewer squares to cover the space, so her squares must have been the larger ones. If the squares are smaller, you need more of them.

Here is a rectilinear shape.

Using 7 more squares, can you make a rectangle?
Can you find more than one way?

Possible answers include:

Look at the shapes. Can you spot the pattern and explain how the area is changing each time?

Draw the next shape. What is its area?

Can you predict what the area of the 6th shape would be?

Can you spot any patterns in your answers?

The area increases by 2 each time.

The next shape will have an area of 9.

The 6th shape will have an area of 13.

The answers are all odd numbers and increase by 2 each time.