Station 4

In this station we investigate the area of rectangles.

Resources:
- squared paper
- scissors
- tape

1. Cut out a 4 cm x 4 cm square from squared paper.
   What are the area and perimeter of the square in centimetres?

2. By making one straight scissor cut and moving and taping the pieces make a rectangle with a perimeter of 20 centimetres.

   What is the area of the rectangle? Explain how you got your answer.

3. Cut out a 12 cm x 3 cm rectangle from squared paper. By cutting, moving, and taping (as in part 2) change the rectangle into a square.

   What changes happen to the area and perimeter from the starting rectangle to the square?

   Try to explain why this happens.

4. Change a 8 x 3 rectangle into a 6 x 4 rectangle by making two straight scissor cuts, moving the pieces and taping. What changes happen to the area and perimeter in this case?

5. Make up a cut, move and tape rectangle/square puzzle for someone else to solve.

6. As an extension cut out a 6 x 6 square. By cutting the square in half, moving the pieces and taping change the square into a triangle. Find the height and the longest side length of the triangle. How do these lengths compare to the area of the square?

7. Investigate changing other rectangles into triangles with one cut. Find the height and longest side length of each triangle and compare it to the area.

   What do you notice?