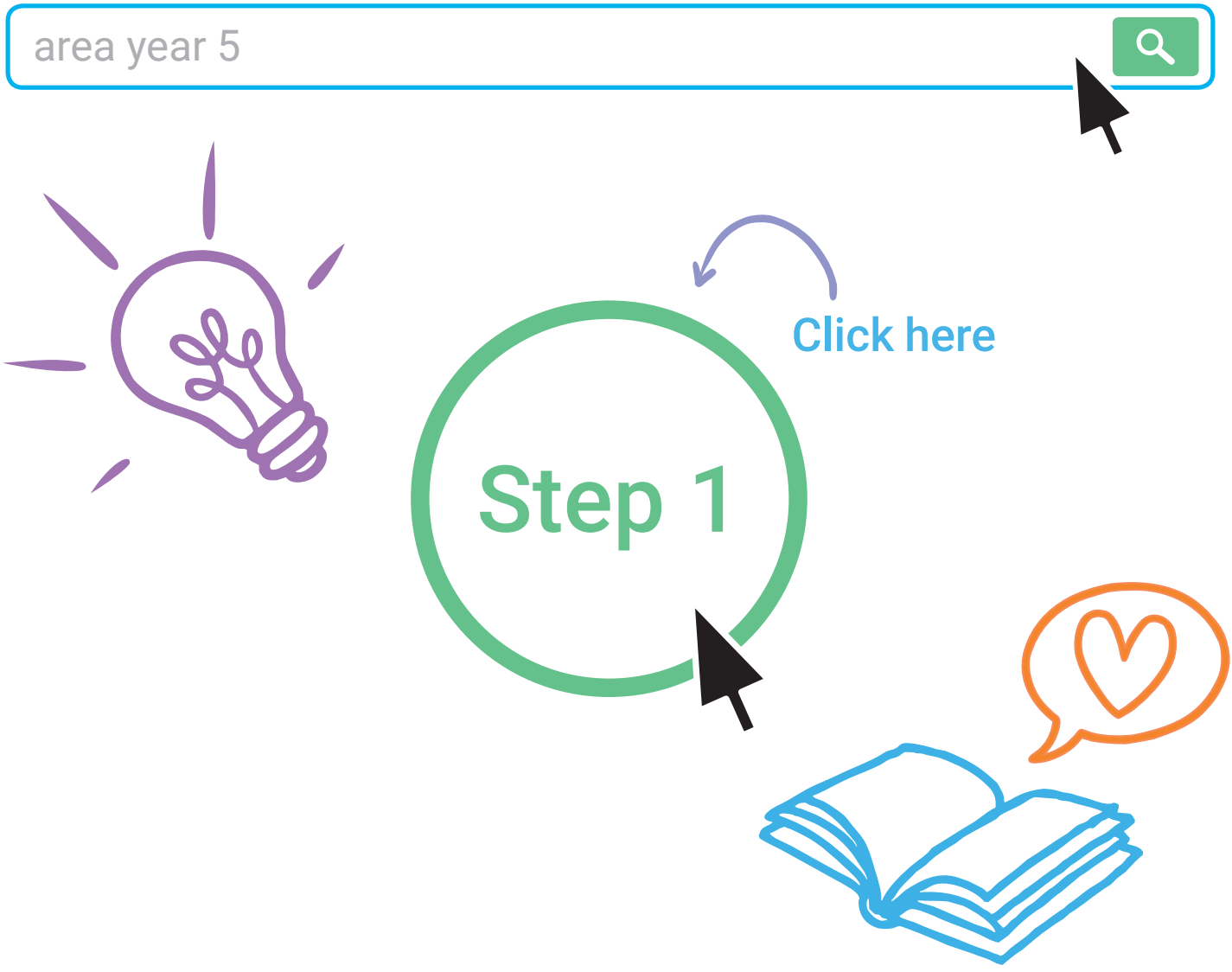
Year 5 Area and Perimeter: A Step-by-Step Guide for Parents

This step-by-step explanation to year 5 area and perimeter can help you support your child's learning at home. Each subject is broken down into manageable chunks, providing you with a simple guide to follow whether your child is learning to calculate the perimeter and area of rectangles and squares or whether they're already working out the perimeter and area of complex compound shapes.

Within **this area of the website,** you will find a selection of resources intended to help your child learn about each step of this guide. Each step also contains a keyword or phrase that you can use to search the Twinkl site for more resources and activities, designed to support your child in achieving that stage. Simply type the keyword or phrase into the search bar and press enter to explore together.



We hope you find the information on our website and resources useful. The contents of this resource are for general, informational purposes only. This guide is intended to offer parents general guidance on what subject areas tend to be covered in their child's year group and where they could support their children at home. However, please be aware that every child is different and information can quickly become out of date. There are some subject areas that we have intentionally not covered due to the nature of how they are taught or because a trained professional needs to teach these areas. We try to ensure that the information in our resources is correct but every school teaches the national curriculum in its own way. If you would like further guidance or are unsure in any way, we recommend that you speak to your child's teacher or another suitably qualified professional.

Area and Perimeter

What does the English national curriculum say about area and perimeter in year 5?

Most children will have encountered the terms 'area' and 'perimeter' before they begin year 5. In year 5, the emphasis moves from counting and measuring perimeter and area to calculating them using rules and formulae.

What is the difference between perimeter and area?

Perimeter is the distance all the way round a shape or object whereas area is the total surface that a shape covers. If you need to know the length of a fence to put around a garden, it's the perimeter you need to know. If you want to cover the whole garden in grass, then you need to know the area of the ground.

What unit is perimeter measured in?

Since perimeter is a distance, it is measured in units of length. Most children's activities will measure in centimetres (cm) when presented on worksheets and children will be expected to become increasingly accurate as they move through the rest of primary school. Measuring the perimeter of a garden or school playground can easily be done in metres (m). The perimeter of a town or city would be measured in kilometres (km).

What unit is area measured in?

Area is a surface and it is calculated (for simple rectangles and squares) by multiplying a length by a width. Because we are multiplying the length by the width, we end up with square units – for example, if the length and width were both measured in cm, then the area would be measured in centimetres squared or cm^2.

Pace It Out

Take as many opportunities as you can while you're out and about with your child to pace round different areas: at the park, in the garden or wherever you're visiting. Measure two of your child's paces to every one metre. You could use this measurement to work out the perimeter of the space you are pacing around.

How Long Is a Piece of String?

Try measuring the perimeter of different surfaces around the house, such as kitchen counters, books or the top of a table – or even rounded objects, such as a plate or the bottom of a mug. You could use a ruler or a tape measure, or a piece of string that you then measure with a ruler.

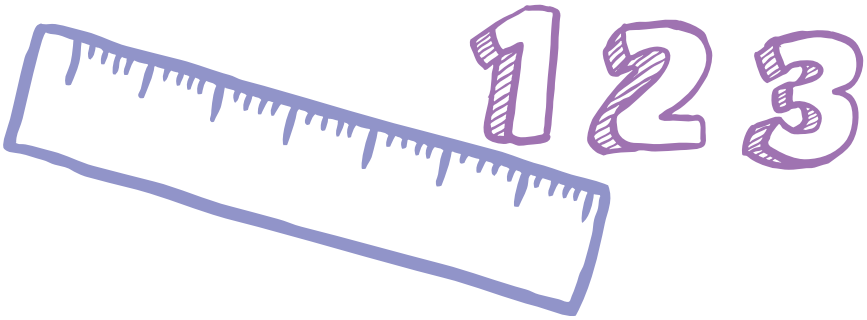
Area in the Kitchen

Try to challenge each other to think of as many situations as possible where area is important in the kitchen: three examples to get you started are how much foil you might need to cover a chicken, how much icing would cover a cake, and the amount of pastry needed to cover the surface of a pie dish!

Step 1

Measuring Compound Perimeters

Your child will learn to measure the perimeter of compound shapes (shapes that are made up of more than one simple shape) by using a ruler to measure the distance all the way around the outside of the shape. They should remember that there should always be a unit of length after their answer (e.g. cm or m). These **Measure the Perimeter of Composite Rectilinear Shapes Worksheets** are a great opportunity to practise measuring the perimeters of compound shapes.



Step 2

Calculating Compound Perimeters

Compound perimeters can be calculated by adding together all the separate straight side lengths of a shape. Encourage your child to write the calculation with + signs and an = sign before writing their answer with a unit. This is a good habit to develop in year 5 as marks are often given for showing working out in the year 6 SAT tests. These **Calculate the Perimeter of Composite Rectilinear Shapes Worksheets** will help your child practise this step.

Step 3

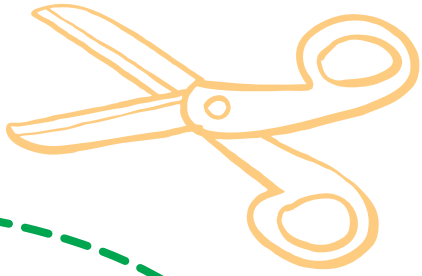
Calculating the Area of Rectangles

The area of a rectangle is worked out by multiplying the length by the width. To remind them of this, your child could write 'A = l × w' (this stands for 'Area = length × width') before each calculation they do. If your child wants to test this, they could try completing some questions where the shape is given on a centimetre grid – for example, some of the questions found on these **Area of a Rectangle Worksheets**. They should find that multiplying length by width gives the same answer as counting all the square centimetres in a rectangle. Once practised, the calculation method is much quicker than counting – especially when finding the area of larger shapes.

Step 4

Calculating the Area of Compound Rectangles

Once your child can measure the area of rectangles confidently, they will be ready for this next step. Compound rectangles are shapes that are made up of more than one rectangle (a square is technically a type of rectangle). Your child may also have heard these called 'composite rectilinear shapes' in school. There are many real-life situations in which we would encounter compound rectangles – for example, when carpeting a house. To find the area of a compound rectangle, children should draw a line to split it into simple rectangles. They can then find the area of each separate rectangle and add up their answers to find the total area of the shape. This **Calculating the Area of Compound Shapes Worksheet Pack** is great for further practice.



Applying Understanding of Perimeter and Area

Once your child is secure on the perimeter and area skills covered in the first four steps, applying this knowledge to a real-life concept is then a really useful learning opportunity. Once you read it through with them, they should be ready to try this **Measure Accurately to Calculate Perimeter and Area of a House Activity Sheet** independently.

Step 5

Explore and Discover More

Twinkl Go! is a digital platform, hosting interactive content such as videos, games, audiobooks and more. Twinkl Go! enables digital content to be streamed to your computer or mobile device.

Twinkl Book Club is our book subscription service. Enjoy our original works of fiction in beautiful printed form, delivered to you each half-term and yours to keep!

Twinkl Boost is a range of intervention resources, created to support and lift learning with children at every level. These include our easy-to-use SATs and Phonics Screening resources.

Imagine resources are designed to help your children to think creatively, question and imagine. Every week, a new topic consisting of five photos, each with related activities, is created.

Twinkl Originals are engaging stories written to inspire children from EYFS to KS2. Designed to encourage a love of reading and help curriculum-wide learning through accompanying resources.

Twinkl Kids' TV is our wonderful YouTube channel dedicated to fun and informative video-style resources full of new and creative activities you can try at home!