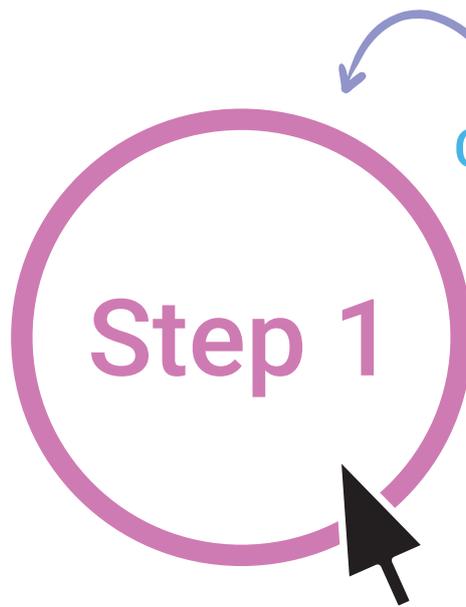


Year 4 Patterns and Sequences: A Step-by-Step Guide for Parents

This step-by-step explanation to patterns and sequences can help you support your child's learning at home. The subject is broken down into manageable chunks, providing you with a simple guide to follow when exploring patterns and sequences together, either as part of homework or if you decide to give your child some extra support. Whether your child is starting to gain confidence with patterns and sequences or they are secure in their learning and want further practice, you will find a step that matches where your child is at then have ideas for where to go next.

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.

Click here



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 However, please be aware that every child is different and information can quickly become out of date.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.

Patterns and Sequences

What Are Patterns and Sequences?

In mathematics, patterns and sequences often refer to a set of objects – usually numbers – that follow a distinct order or rule. Patterns and sequences are important because by studying them, we can predict trends and interpret statistics.

In year 4, your child will be taught to count on in 6s, 7s, 9s, 25s and 1000s. They will use their knowledge of place value to count in thousands and spot patterns when counting in 25s, for example, spotting a pattern in the final digit when counting up in 25s.

Your child will build on their work in year 3 by continuing a number sequence according to a given rule as well as finding missing numbers in a sequence and investigating what rule is being applied to the numbers within a sequence each time.

In year 4, children are also introduced to negative numbers as well as decimal numbers and will be expected to add more to the sequence as well as spot missing numbers, using both positive and negative numbers as well as decimals.

As well as using the resources in this category and the keyword searches to help your child learn about patterns and sequences, below are a few ideas for games and activities to help your child practise and become more familiar with the concept of patterns and sequences at home.

Dice Game

Give your child a start number, for example 10 or 15. Now, ask them to throw two dice to form a 2-digit number. Can they count on using the number thrown? For example, if the number thrown was 14 (a one and a four on the dice), count on from the start number in 14s. Can they create a five-step number sequence using their rule? Repeat for a different 2-digit number thrown.

Open-Ended Number Sequence Activity

Challenge your child to create their own number sequence. See if they can set their own rule and create a sequence of five or six numbers. They can then challenge you to identify their rule.

Missing Tens Times Tables

Ask your child to write the numbers in the 2 times table but without the tens digit, so 2, 4, 6, 8, 0, 2, 4, 6, 8, 0. Now ask them to do the same for the 3 times table, putting the numbers they generate underneath. Repeat with multiples of 4 and 5. Can they spot any patterns? Can they predict what might happen next if they wrote down the next times table?

Investigate Triangular Numbers

You can generate a triangular number pattern by using dots to represent triangles and drawing a new line of dots underneath. The first number in the sequence would be 1, the second would be 3 so what would the third, fourth and fifth numbers be? Investigate by forming triangles with dots to find out.



Step 1

Continuing Number Sequences, Finding Missing Numbers and Identifying Rules

In year 4, your child will continue to investigate number patterns and sequences during maths lessons. They may be encouraged to extend a number sequence following a given rule or find missing numbers in a pattern according to a rule. They will also be asked to identify what rule is being applied to a given sequence of numbers. You can access a range of **activity sheets** on the Twinkl Parents' Hub to help your child practise these skills at home.



Counting in 6s, 7s, 9s, 25s and 1000s

At this stage, your child will learn to count on in 6s, 7s and 9s and investigate counting on in 25s and 1000s. They will be asked to identify any patterns they can see when counting, for example, when they colour in the multiples of 9 on a hundred square, what happens? How would this help them to predict larger numbers in the sequence? You can use our **worksheets** and the games in our pirate-themed ordering cards resource to encourage your child to improve their fluency in this area.

Step 2



Step 3

Counting in Fractions, Decimal Fractions and Negative Numbers

In maths lessons at school, your child may also investigate number sequences involving fractions, decimals and negative numbers, counting forwards and backwards through zero. You can find a selection of activities, **worksheets** and number lines to help your child consolidate their knowledge in this area at home on the Twinkl Parents' Hub.



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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.



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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.



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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!