

Prime Numbers: A Step-by-Step Guide for Parents

This step-by-step explanation to prime numbers 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 prime numbers together, either as part of homework or if you decide to give your child some extra support. Whether your child is only just beginning to explore what prime numbers are or they are gaining confidence with prime numbers and want to find out more, 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 as well as 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 However, please be aware that every child is different and information can quickly become out of date.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.

Prime Numbers

What Are Prime Numbers?

A prime number is a number greater than 1 that can only be divided by itself and 1 without leaving any remainders. Examples of prime numbers include: 2, 3, 5, 7, 11, 13, 17 and 19.

$$3 \div 3 = 1$$

$$3 \div 1 = 3$$

In years 5 and 6, your child will learn how to establish whether a number up to 100 is prime and will be required to recall prime numbers up to 19.

As well as using the resources in this category and the keyword searches to help your child with prime numbers, a few ideas for games and activities to help your child learn how to practise and become familiar with recognising numbers that are prime are described below.

Prime Numbers Challenge

Download this **100 number square** resource. Challenge your child to shade in all of the prime numbers up to 100. How quickly can they do it? Next, give them a number at random and ask them what the nearest prime number below and above that number would be.

Prime Numbers Memory Game

Use a 4 x 4 grid and write the first 16 prime numbers in individual squares in a random order. Let your child have a minute to look at the order the numbers are in before covering the numbers up with counters. Can they then uncover each prime number in the correct order, i.e. from smallest to largest?

Patterns with Prime Numbers 1

Encourage your child to test out the following question:

Think of a number greater than 1 and double it. Can you find a prime number between your first number and its double? Is this always true?

Try some other numbers and doubles.

Patterns with Prime Numbers 2

Encourage your child to test out the following statement:

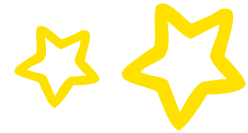
Every number greater than 5 can be written as the sum of three prime numbers. Is this always true?



Step 1

Understanding Factors

In order for your child to understand what prime numbers are, they need to be aware of what factors are. Factors are numbers that you can divide another number into exactly, for example 4 and 2 are factors of 8. Factors of a number always include the number itself and the number 1. Take a look at this PowerPoint with your child to reinforce key learning about this concept.



Recognising Prime Numbers

Your child will go on to use their knowledge of factors to see that some numbers only have two factors; 1 and the number itself. They will be taught that these types of numbers are called prime numbers and that non-prime numbers are called composite numbers. This prime numbers poster can be a great visual aid when it comes to recognising and learning about prime numbers.

Step 2

Step 3

Recalling Prime Numbers to 19

At this stage, your child should be able to recall all prime numbers below 20 as well as recognise what numbers are prime up to 100. Try working through this activity sheet together to help consolidate their learning and recall of the first prime numbers.



Problem-Solving with Prime Numbers

Once your child is confident with prime numbers, they will be able to carry out problems and experiment with patterns involving them. Challenge them to solve this maths puzzle using prime numbers to help stretch and deepen your child's understanding in this area.

Step 4



Explore and Discover More

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Boost

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

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.



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ORIGINALS

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



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KIDS' TV

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!