

Year 5 Problem-Solving and Games: A Step-by-Step Guide for Parents

This step-by-step explanation of problem-solving and games in maths will 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 a keen learner who loves to solve problems or they are reluctant to practise their maths skills, there is plenty in this guide to help you engage your child with maths at home.

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 However, please be aware that every child is different and information can quickly become out of date.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

Problem-Solving and Games

How Do Maths Games Help with Mental Arithmetic?

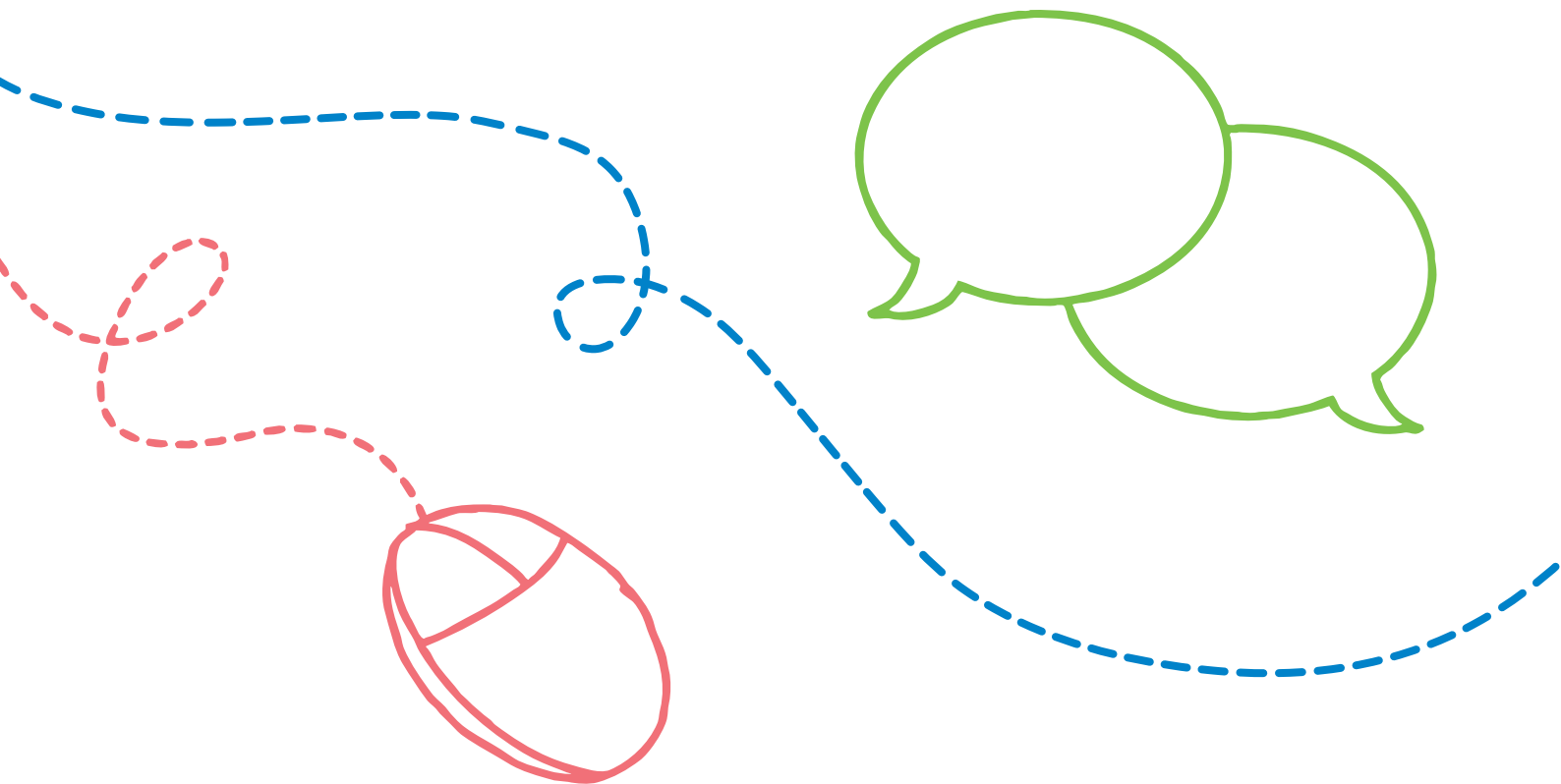
In years 5 and 6, children work hard to hone their mental maths skills. In England, year 5 and 6 are the years directly before the year 6 SATs test which most children, aged 11, take at the end of primary school. The arithmetic paper tests children's number and calculation skills and requires them to be mathematically fluent. Maths games are a fun, engaging way of developing fluency. Games that use a time limit, dice or an element of competing against a partner all help children to generate accurate answers quickly, to spot the most efficient method to use and to work out calculations mentally - skills central to success in arithmetic. Interactive computer games, like those on **Twinkl Go!**, help to develop mathematical fluency by accurately pitching questions to children's level and stage of learning so confidence is built as a child learns.

What Topics Should I Teach at Home Using Maths Games?

Some topics that form part of the maths curriculum are ideal to be taught through games whereas others work less well. When a child needs to develop quick recall of number facts or maths methods, any game which involves repetition and also has a random and unpredictable element to it is great for improving their mathematical fluency.

What Is Mathematical Fluency?

Mathematical fluency is an important part of the recent changes to the maths national curriculum for England. Fluency is a broad term which is used to describe a person's ability to learn, recall and use key mathematical facts and methods quickly and accurately. Children are taught how to understand mathematical concepts at school and as they practise, they speed up and become more accurate. Children need to then move into a mode of rapid – or instant - recall. When the maths is straightforward, such as times tables, this means recalling an answer accurately and quickly. If the maths is problem-solving, children's recall may involve being able to spot quickly whether the problem needs them to add, subtract, multiply or divide. Twinkl's maths games help children work towards fluency by providing repeated practice that is targeted at their age and stage of learning.



As well as using the resources in this category, and the keyword searches to help your child with problem-solving, below are a few ideas for games and activities to help your child practise solving problems at home.

Mindfulness Colouring

As the end of primary school nears, children can find the transition to secondary school tricky. Balancing maths learning with some mindfulness colouring offers a calm, 'in the moment' opportunity for children to absorb number facts. Try out this lovely **times tables colouring activity** - there are plenty more on our Twinkl website.

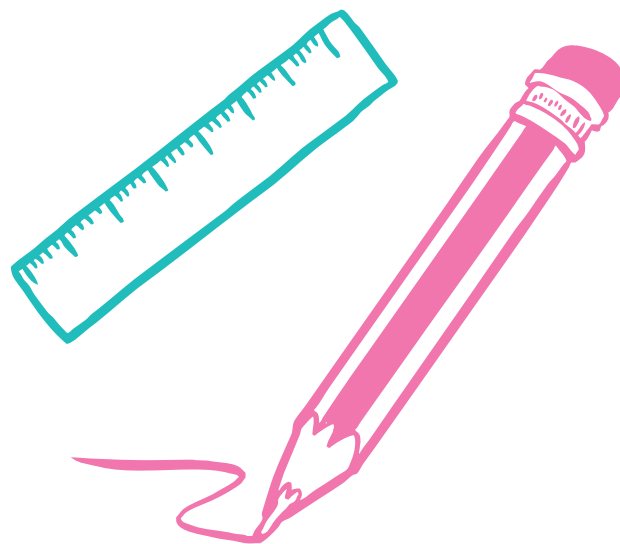
Twinkl Go!

One of the steps in this guide uses a Twinkl Go! interactive game. Why not take a look at our amazing range of interactive maths games by following this **Twinkl Go! link**? You will find a huge range of games that your child won't want to put down! You can often set the difficulty level and/or the range of times tables or numbers used at the beginning of the game, giving your child confidence and allowing you to monitor their progress.



Prime!

Prepare a set of cards with the numbers 1 to 30 on them (one number per card). Write down all the **prime numbers** between 1 and 30 (2, 3, 5, 7, 11, 13, 17, 19, 23 and 29) on an additional sheet of paper and put this 'answer sheet' to one side. Lay the number cards face down on the table. Each child turns over a card and must shout, 'Prime!' immediately if they turn over a prime number. If they don't know, they put the card back face down. Another child can choose the card if they think it is prime. The winner is the person who collects the most cards. The answer sheet can be used to check that the prime numbers have been correctly identified.



Step 1

Four in a Row

In the later primary years, it is important for children to hone their mental maths skills. This simple game is split into game boards of different levels. Start by giving your child the one-star activity sheet and move gradually through to the three-star activity.



Locked Cupboard Mystery

This maths mystery challenge is an ideal activity to help consolidate your child's number skills. It gives them an opportunity to apply their understanding of **place value** and their **rounding** skills, as well as offering the motivation of a mystery. Children should be encouraged to spend around half an hour on the mystery each day and to solve it in steps. You can print out the challenge or get your child to read it on screen. Just make sure that the answer page is not available for them to see!

Step 2

Great Bakes Mystery

Prime numbers are an important aspect of children's mathematical fluency. The element of repetition in this engaging game means that your child will become more familiar with prime numbers. This will help them to move towards rapid recall of prime numbers.

Step 3

Maths Escape Room

This activity, perfect as a game for the family to enjoy together, will help develop your child's mathematical reasoning and problem-solving skills. There are ten clues to be solved - using the maths skills taught in the upper years of primary school - in order to crack the code. Working in a family group allows support to be offered and gives each player the chance to work to their strengths while learning more about how to tackle their weaknesses.

Step 4

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.



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Go!



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Book Club

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!



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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 children from EYFS to KS2. Designed to encourage a love of reading and help curriculum-wide learning through accompanying resources.



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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!