

# Year 6 Statistics and Data Handling: A Step-by-Step Guide for Parents

This step-by-step explanation to statistics and data handling 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 statistics and data handling 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 statistics and data handling, or they are gaining confidence in this area of maths 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 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.

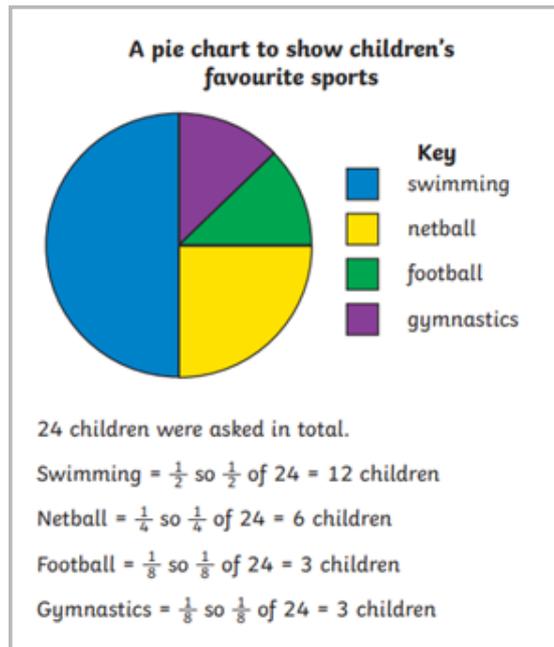
We hope you find the information on our website and resources useful. The contents of this resource are for general, informational purposes only. This guide is intended to offer parents general guidance on what subject areas tend to be covered in their child's year group and where they could support 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 However, please be aware that every child is different and information can quickly become out of date.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.

# Statistics and Data Handling

## What Is Statistics and Data Handling?

When children study statistics and data handling at primary school, they are essentially looking at ways of gathering and recording information, then presenting the information in a way that is easy for others to read and understand. Bar charts, line graphs and timetables are just some of the formats children may use to present their information at school during upper key stage 2.

In year 6, your child will be introduced to the concept of pie charts and will be taught how to construct and interpret these types of graphs. A pie chart is another way of visually showing data. It is divided into sections which represent a percentage or value. The size of each section matches the proportion of the total amount. Children use their knowledge of fractions to work out the numerical value of each section after they have been given a total amount. For example:



Your child will also build on the work they learnt in year 5 about line graphs. During maths lessons at school, they may be asked to draw and interpret these types of graphs as well as to solve problems and answer questions about them.

In year 6, children are also introduced to the concept of the 'mean' as a type of average. To calculate the mean of a set of data, you must add up all of the numbers then divide by how many numbers there are. For example:

6, 3, 9, 10

To calculate the mean of this set of data, add the numbers together first. So,  $6 + 3 + 9 + 10 = 28$ . Then divide the answer by the amount of numbers there are, in this case 4:  $28 \div 4 = 7$ . The mean of this set of data therefore is 7.

In addition to these new concepts, your child will continue to use and apply their knowledge of bar charts, pictograms, tables and timetables that they gained in previous years of learning in key stage 1 and key stage 2.

As well as using the resources in this category and the keyword searches to help your child with statistics and data handling, below are a few ideas for activities to help your child make progress in this area.

## Paper Plate Pie Charts

Use a paper plate to introduce your child to the concept of pie charts. Conduct a short survey among your family about their favourite sports or their favourite foods, for example. Divide the plate up by marking it with a ruler and a pencil to show the proportion of who liked what.

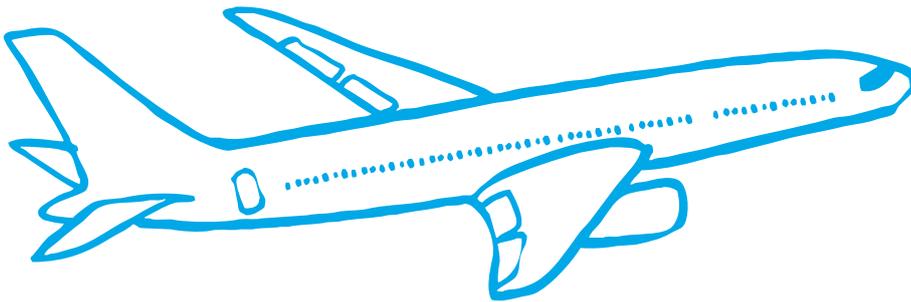
If you've surveyed three people, divide your plate into thirds, for four people, divide it into quarters and so on. Colour in the sections at the end to make it really clear.

## Every Line Graph Tells a Story

Draw a line graph showing an x- and y-axis and a line going up diagonally, then horizontally, then going up diagonally again. Don't label the graph. Ask your child to think about what the graph could be showing. For example, the height a plane reaches before levelling off then climbing higher again.

## The Mean Game

Players pick two numbers between 1 and 1000 and write them down on a piece of paper. All players then show each other the numbers they have picked and together work out the mean of all the numbers chosen. The person who originally picked a number nearest the mean wins. The more players, the better!



## Step 1

### Read, Interpret and Draw Line Graphs

In year 6, children will continue to build on their knowledge of line graphs and will be asked to interpret graphs accurately. Your child may also be asked to construct their own line graphs, deciding on an appropriate scale to use and using labels to describe what the graph is about. You can use our **Line Graph Challenge Cards** to help your child practise their graph reading skills as well as to stretch their thinking about this way of displaying data.



### Draw and Interpret Pie Charts

At this stage, your child will be introduced to the concept of pie charts as another way of organising and presenting statistics (see the explanation about pie charts on the previous page). Your child may be asked to interpret pie charts as well as to draw them. You can use our fantastic resource pack, containing a PowerPoint and activity sheets, to help and encourage them to practise these skills.

## Step 2



### Calculate the Mean

## Step 3

At this step, your child may be introduced to the concept of averages in maths. They will look at how to calculate the mean of a set of data by adding up the values and dividing by the amount of values there are. You can encourage your child to practise working out the mean with our activity sheets that are suitable for different levels of learners.

### Statistics Mastery Activities

Once your child feels confident in this area of maths, allow them to try our challenge cards and maths mastery PowerPoints designed to deepen their understanding, thinking and problem-solving skills.

## 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!



twinkl  
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.

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!