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# Functions Make Computer Code Simpler and Reusable

KS2 COMPUTING

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## What Is a Function?

A **function** is a special block of code that does a specific job. Instead of writing the same instructions over and over again, you can create a function once and use it as many times as you need. Functions help organize code and make programs easier to understand and fix.

Think of functions like shortcuts in your brain. When you tie your shoes, you don't think about every single step anymore—your brain just runs the "tie shoes" command. Programmers use functions the same way.

Think of it like a recipe card. Instead of writing out all the ingredients and steps every time you want to bake cookies, you just grab your recipe card and follow it. A function is like that recipe card for your computer.

## How Do Functions Work?

Most functions have three main parts: a **name**, **inputs** (called parameters), and an **output** (what it gives back). When you want your program to do something, you "call" the function by using its name. The function then runs all its code and sends back a result.

For example, imagine a function called "add\_numbers" that takes two numbers as inputs. You tell it "add\_numbers(5, 3)" and it returns **8**. You don't need to know how it adds them—you just get the answer.

Think of it like a vending machine. You press a button (call the function), the machine does its work inside, and out comes a snack (the output). You don't need to understand all the machinery inside.

## Why Do Programmers Use Functions?

Functions save time and prevent mistakes. If you need the same code to run **100** times, writing it once in a function and calling it **100** times is much faster than typing

it all out. It also makes fixing bugs easier—if something is wrong, you only fix it in one place.

Functions also make code easier to read. Someone looking at your program can understand what's happening because the function names explain what each block does. Without functions, code becomes messy and confusing.

## Functions in Real Life

You already use functions every day! When you search on **Google**, you're calling a search function. When you post on **Instagram**, you're using an upload function. Every app on your phone uses thousands of functions working together to do all the things you see on screen.