

TEACH YOUR KID TO CODE

Vol. 01

MY DAY

SMART KIT

CODE, PLAN, LEARN!



Teach Your Kid to Code:

A Fun and Easy Beginner Workbook

Welcome to your first exciting adventure into the world of coding! This workbook is specially designed for children aged 6–12, offering a playful and accessible introduction to programming basics. We believe every child has the potential to become a creator, and this guide will equip them with the foundational skills needed to bring their imaginative ideas to life. No prior coding experience is necessary—just a curious mind and a spark of creativity!

Through engaging activities and colorful challenges, your child will explore the fundamental concepts of computer science in a way that feels like play. This workbook is ideal for homeschooling, offers a kid-friendly visual language, and encourages hands-on learning. Get ready to unlock new possibilities and embark on a journey that fosters logical thinking, problem-solving skills, and a confident approach to technology. Let the coding fun begin!



Unlocking the Secrets of Code:

What is Coding?

Imagine you want to tell a robot exactly how to make a peanut butter and jelly sandwich. You can't just say, "Make a sandwich!" You have to give it very specific, step-by-step instructions: "Pick up the bread. Open the jar of peanut butter. Spread peanut butter on one slice. Close the peanut butter jar."

Coding is exactly like that! It's the special language we use to give instructions to computers, telling them precisely what to do, one tiny step at a time. When we write code, we're building something amazing: it could be a super-fun video game, an interactive story, a helpful app, or even controlling a real-life robot! Every app on your phone, every website you visit, and every video game you play was made with code.

Why Learn to Code?

Learning to code is like gaining a superpower for your brain! It's not just about becoming a computer scientist; it's about developing essential life skills that help kids succeed in anything they do.



Logical Thinking

Coding teaches kids to break down big problems into smaller, manageable steps, just like solving a puzzle.



Problem-Solving

When code doesn't work, kids learn to find the "bug" and figure out how to fix it, building resilience and critical thinking.



Creativity

Coding is a powerful tool for self-expression, allowing children to design, animate, and build anything they can imagine.



Confidence

Mastering new tech skills gives kids a huge boost in self-esteem and prepares them for a future where technology is everywhere.

Your Coding Toolkit & First Steps into Logic

Tools You'll Need

Before we dive into the fun, let's make sure you have everything ready for your coding adventure. Don't worry, you probably have most of these already!

A computer or tablet:

This is where you'll write and run your code. Almost any modern device will work!

Internet connection:

We'll be using a fantastic online platform called Scratch.

A notebook or worksheet:

Great for jotting down ideas, planning your projects, or even drawing your own game characters.

A curious mind:

The most important tool of all! Be ready to explore, experiment, and have fun!

Parents and educators, your encouragement and presence are also incredibly valuable! Learning alongside your child can make the experience even more rewarding.

Let's Start with Logic: How Computers "Think"

Before we write our first line of code, let's explore some fundamental ways computers and programmers think. These are like the secret ingredients to making great programs!

1 Sequence

Sequence means putting instructions in the correct order. Computers follow instructions one by one, exactly as you tell them. If you mix up the order, the computer will get confused!

Example: Your Morning Routine

1. Wake up
2. Brush your teeth
3. Eat breakfast

Challenge: Think about how you get ready for school. Can you put the steps of your morning routine in the correct order? What would happen if you ate breakfast before brushing your teeth?

2 Loop

Loops are all about repeating instructions. Instead of telling a computer to do something many times, you can just tell it to "loop" or "repeat" a certain action a specific number of times, or until something happens. It saves a lot of time and code!

Example: "Clap your hands 3 times"

Instead of: Clap, Clap, Clap

We say: Loop 3 times: Clap

Challenge: What other things repeat in your daily life? Can you draw a picture of something that repeats, like a pattern on a blanket or a dance move?

More Logic Fun: Conditionals & Variables

1 Conditional

Conditionals are like "if... then..." rules. They tell a computer to do something ONLY if a certain condition is true. If the condition isn't met, the computer does something else (or nothing at all!).

Example:

If it's raining, then bring an umbrella. Else (if it's not raining), then don't bring an umbrella.

Challenge: What are some "if... then..." rules you use every day? Create your own "if... then..." rule about playing outside or choosing a snack.

2 Variable

Think of a variable as a special box with a label on it. Inside the box, you can store a piece of information. The cool thing is, you can change what's inside the box! So, if you have a "score" box, the number inside can go up or down as you play a game.

Examples:

`score = 10`

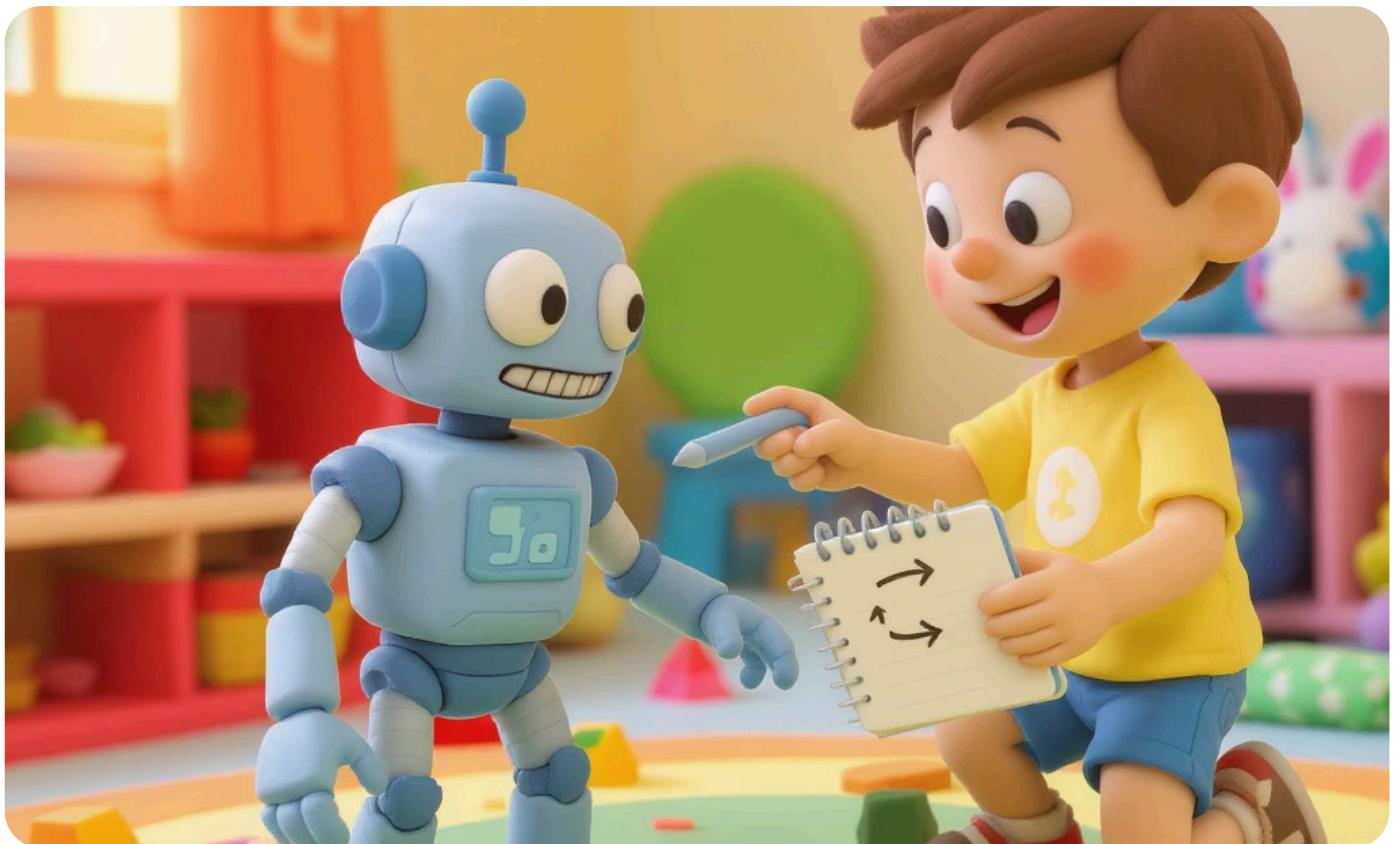
(The box labeled "score" holds the number 10)

`name = "Alex"`

(The box labeled "name" holds the word "Alex")

Challenge: If you were creating your own game or story, what kind of information would you want to store in a variable? Would it be a player's name, their health, or maybe how many cookies they've collected? Draw your variable box and what's inside!

Fun Activity:



Command the Robot!

Now that you know about sequence, let's play a game that uses it in real life! Find a friend or a family member to be your "robot." Your job is to be the programmer and give the robot instructions to cross a room using only these specific commands:

- → **(Move Right)**
- ← **(Move Left)**
- ↑ **(Move Up)**
- ↓ **(Move Down)**

Try it out! Start with simple paths and then make them more challenging. What happens if you forget a step or give the wrong instruction? This is just like debugging code!

Dive into Scratch:

Your First Coding Studio!



Welcome to Scratch!

Get ready to bring your ideas to life with **Scratch**!

Scratch is a free online programming language designed by the Massachusetts Institute of Technology (MIT) specifically for kids. It uses colorful "code blocks" that snap together like LEGOs, making coding fun and easy to understand.

To get started, simply visit: scratch.mit.edu. Once you're on the website, click the "Create" button at the top to open your very own coding studio. No need to download anything—it all works right in your web browser!

Scratch Interface Tour:

When you open a new project, you'll see a few main parts. Take a moment to explore and click around!

🎮 Stage:

This is where your creations come alive! Your characters (called "sprites") move and interact here.

🧱 Code Blocks:

These are the colorful puzzle pieces you'll drag and snap together to tell your sprites what to do.

🎭 Sprites:

These are the characters or objects in your project. The orange cat is the default Scratch sprite!

🔧 Toolbar:

Here you'll find tools to save your project, change the language, and more.

Don't be afraid to experiment! Click on different categories of code blocks to see what they do.

Your First Project:



Make the Cat Move!

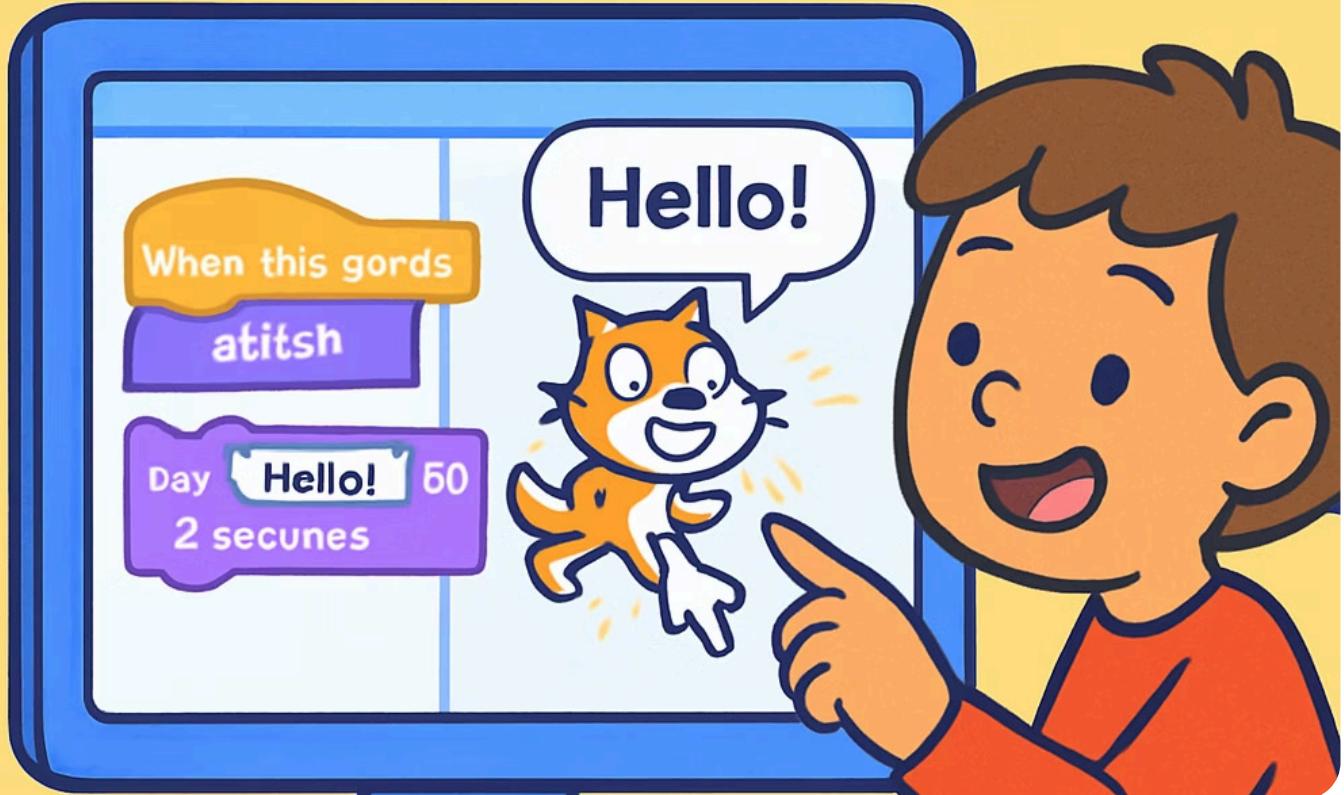
Let's make our Scratch cat move! This simple project will introduce you to dragging and dropping code blocks.

1. **Find the "Events" category** (usually yellow). Drag the "**when green flag clicked**" block to the coding area (the large empty space in the middle). This block is like a "start" button for your code.
2. **Find the "Motion" category** (usually blue). Drag the "**move 10 steps**" block and snap it directly underneath the green flag block.
3. Now, click the **green flag** above the stage (or the green flag block itself) and watch your cat move!

Challenge: Can you make the cat move in a square? Think about what you learned about **sequence** and **loops**! You'll need more "move" blocks and "turn" blocks. Try changing the number in the "move" block to make it go further or shorter.

Project 2:

Say Hello!



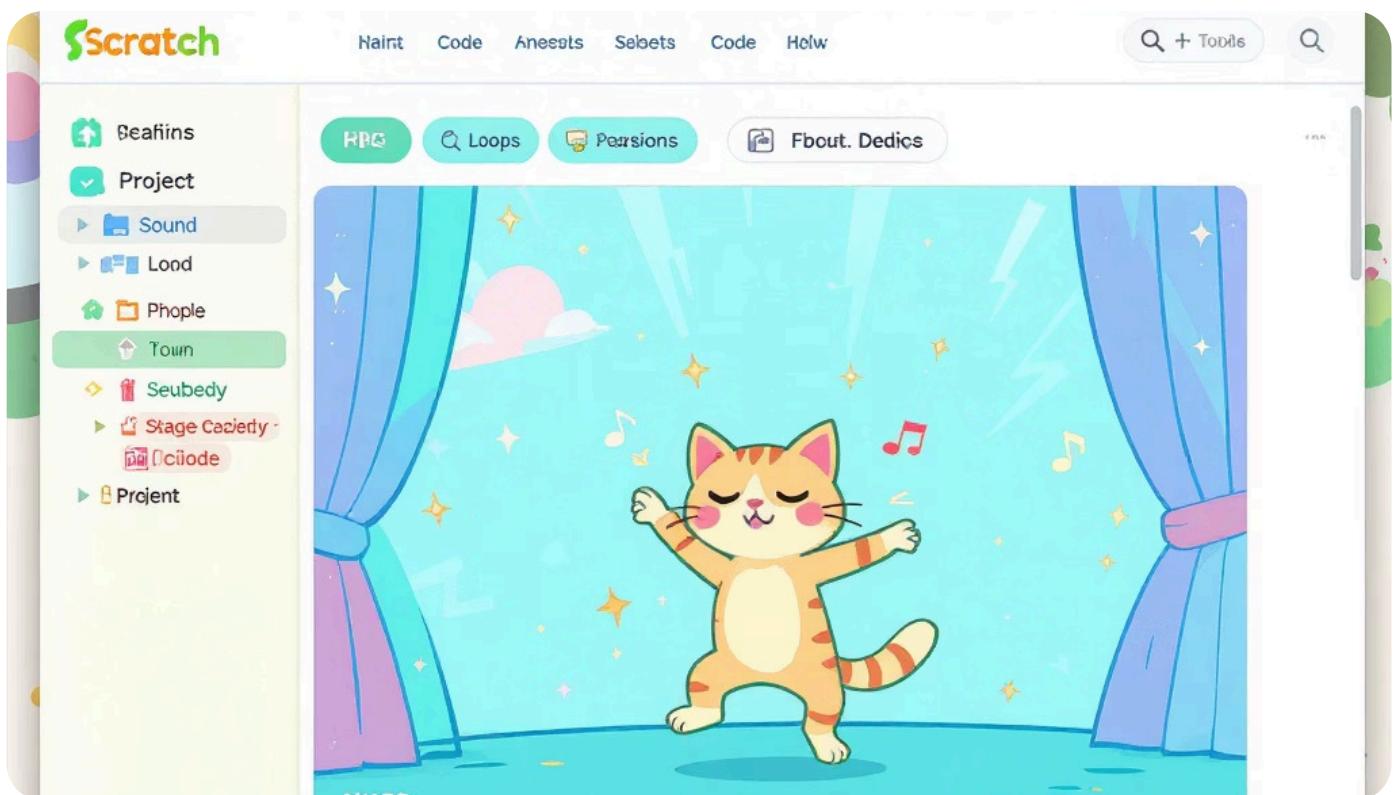
Say Hello!

Let's make our cat talk! This project uses an "event" and a "look" block.

Goal: Make the cat say "Hello!" when you click on it.

- From "**Events**", drag the "**when this sprite clicked**" block to a new area on your screen (or remove your previous code).
- From "**Looks**" (purple category), drag the "**say 'Hello!' for 2 seconds**" block and snap it underneath.

Now, click on the cat sprite on the stage. What happens? Try changing the message and the number of seconds!



Project 3: Dancing Sprite!

Let's get our character grooving! This project will teach you how to combine motion, sound, and loops to create an animated dance.

Goal: Make your character dance to music!

- Start with a "**when green flag clicked**" block (from Events).
- From "**Sound**" (pink category), add a "**play sound [Meow] until done**" block. Click the dropdown to choose a different sound or record your own!
- From "**Control**" (orange category), use a "**repeat [10]**" loop. Drag some "**Motion**" blocks inside the loop, like "**move 10 steps**" and "**turn [15] degrees**". Experiment with different numbers and blocks!
- Click the green flag to see your sprite dance! Can you add more moves? Maybe change costumes (from the "Looks" category) to make it look even more like it's dancing!

Project 4:



Jump When Pressed!

Let's make our sprite jump when we press a key on the keyboard. This introduces controlling your sprite with user input.

Goal: When you press the space key, your sprite jumps!

- From "**Events**", drag "**when [space] key pressed**" (click the dropdown to choose a different key if you like!).
- From "**Motion**", use "**change y by 30**" (this moves the sprite up).
- From "**Control**", add a "**wait 0.25 seconds**" block (so it pauses briefly at the top of the jump).
- Finally, from "**Motion**", add another "**change y by -30**" (this moves the sprite back down).

Try pressing the space key! What happens if you change the "y" numbers or the wait time? Can you make it jump higher or slower?

Mini Game:



Coding Maze

Time for a paper-and-pencil coding challenge! Draw a simple maze on a piece of paper. Imagine your sprite is at the start, and you need to write down the commands to help it escape to the end.

Use only these commands:

- **(Move Right)**,
- ← **(Move Left)**,
- ↑ **(Move Up)**,
- ↓ **(Move Down)**.

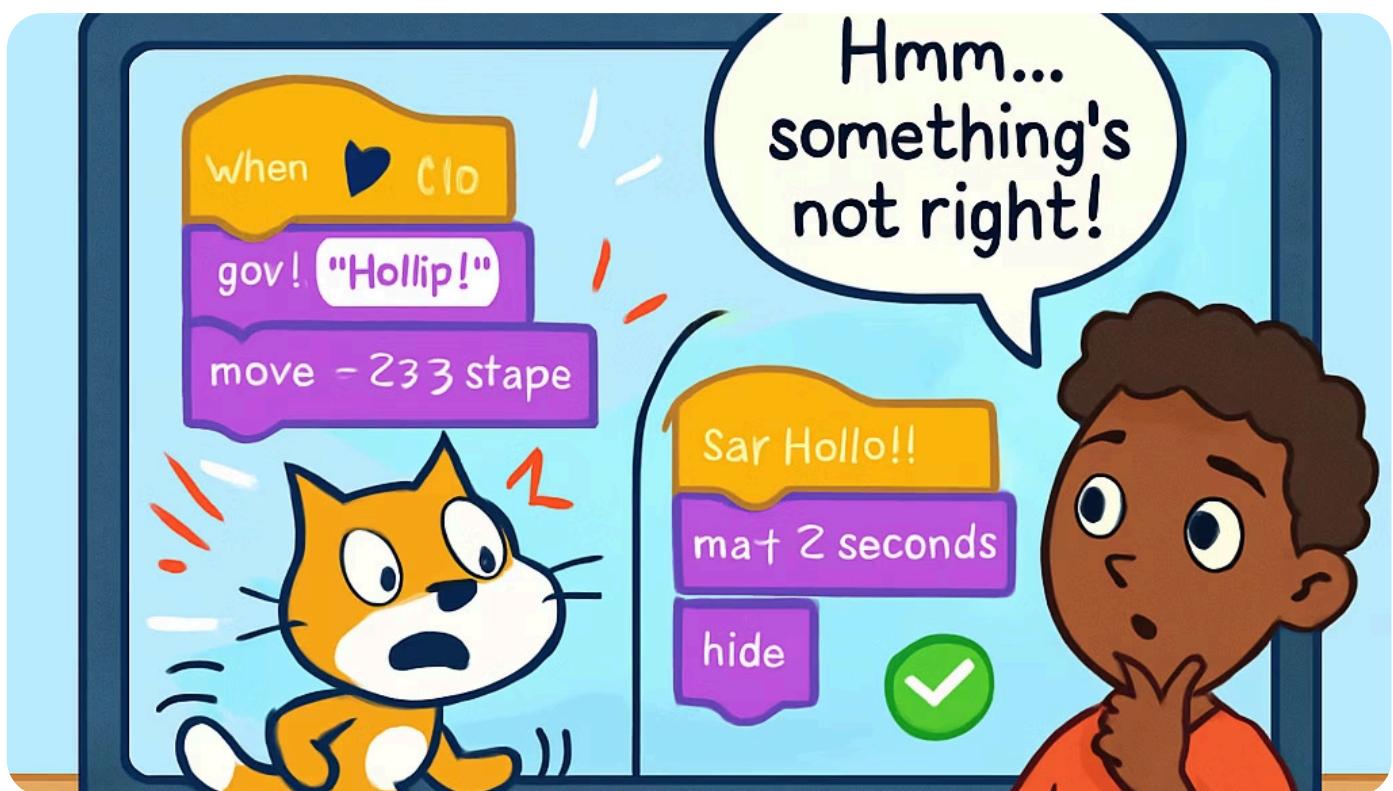
Remember, each arrow means one step in that direction.

Example commands to escape a tiny maze:

→ → ↑ ↑ ← ↓ →

Can you solve your own maze? Try having a friend try to follow your commands exactly. This is a great way to practice **sequence** and thinking like a computer!

Debug It!



Even experienced coders make mistakes! Finding and fixing those mistakes is called "debugging." It's a super important skill.

Look at this broken code snippet. The programmer wanted the cat to say "Hello!" and then disappear off the screen, but something went wrong.

```
when green flag clicked
say "Hello!"
move -999 steps
```

What's wrong with this code? The "move -999 steps" block will make the cat move backwards very far, but it won't make it disappear off the screen in a neat way. Also, the "say" block only lasts for 2 seconds.

How would you fix it?

(Hint: To make a sprite disappear, you can use a "hide" block from the "Looks" category. To make it reappear, you'll need a "show" block!). Think about the **sequence** of events if you want it to say hello, then move, then disappear!

Advanced Adventures & Creative Creations



Build Your Own Sprite!

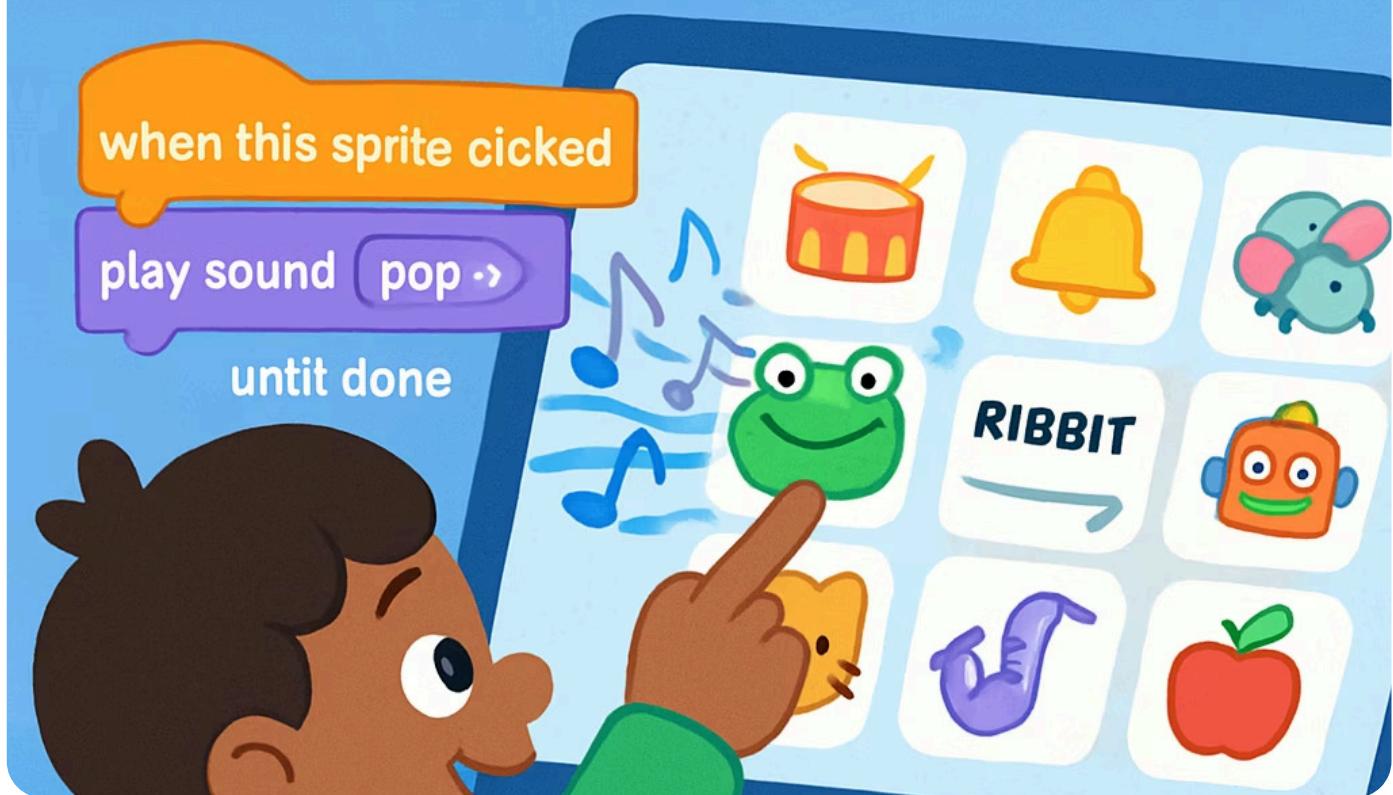
Why just use the Scratch cat when you can create your very own character? Scratch has a powerful "paint" tool that lets you draw anything you can imagine!

- Look for the "Choose a Sprite" button (it looks like a cat head with a plus sign) at the bottom right of the Sprites area.
- Click the "Paint" option (it looks like a paintbrush). This will open the drawing editor.

Now you have a blank canvas! Use the tools to draw your own character, a monster, a funny animal, or even a magical creature. Give it a name and think about its personality. What kind of adventures will your new sprite have?

Project 5:

MAKE A SOUNDBOARD!



Make a Soundboard!

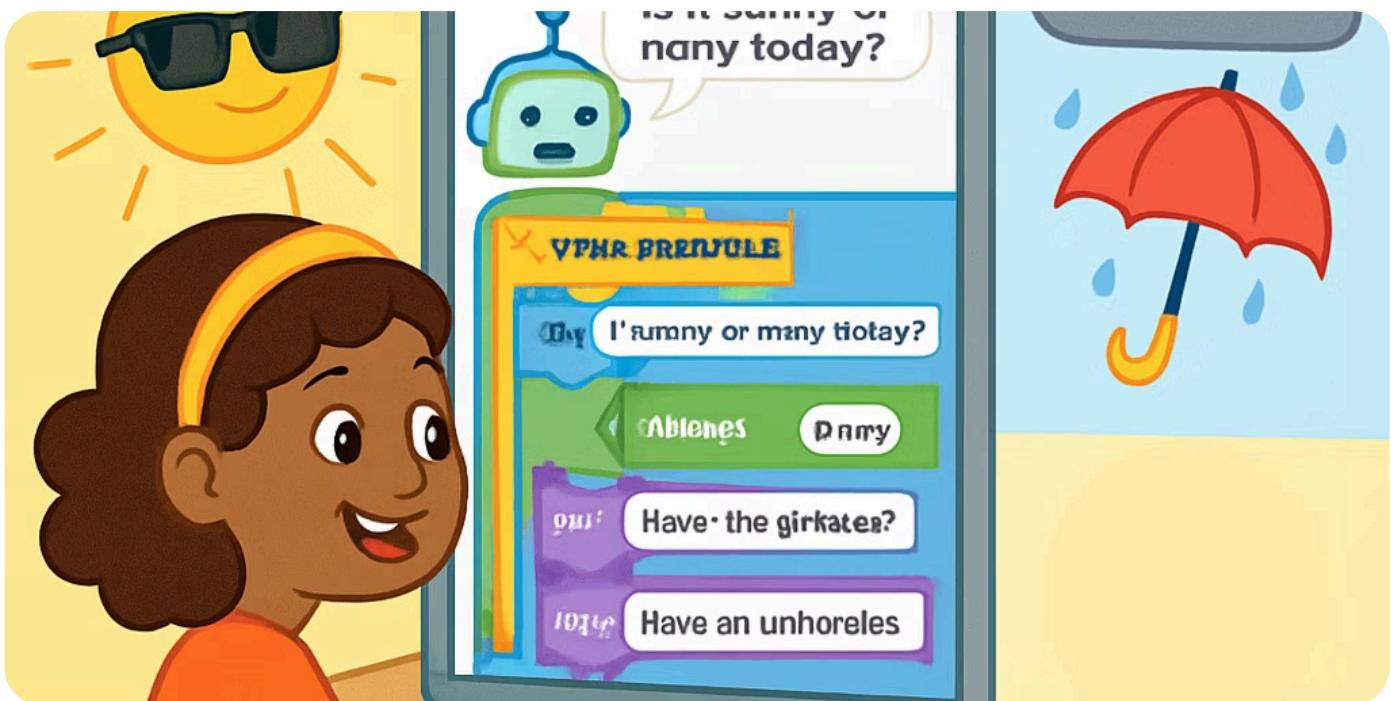
Let's create an interactive soundboard where different buttons play different sounds. This project is great for understanding how multiple sprites can work together.

Goal: Click different "buttons" (sprites) to play various sounds.

1. Delete the Scratch cat. Choose a few new sprites from the Scratch library (or draw your own!) that could act as buttons.
2. For each sprite, drag a "**when this sprite clicked**" block (from Events).
3. Then, add a "**play sound [pop] until done**" block (from Sound). Click the dropdown to choose a different sound for each sprite. You can even upload your own sounds!

Arrange your sprites on the stage like a real soundboard. Now click them to hear your custom sounds!

Project 6



Code the Weather Bot

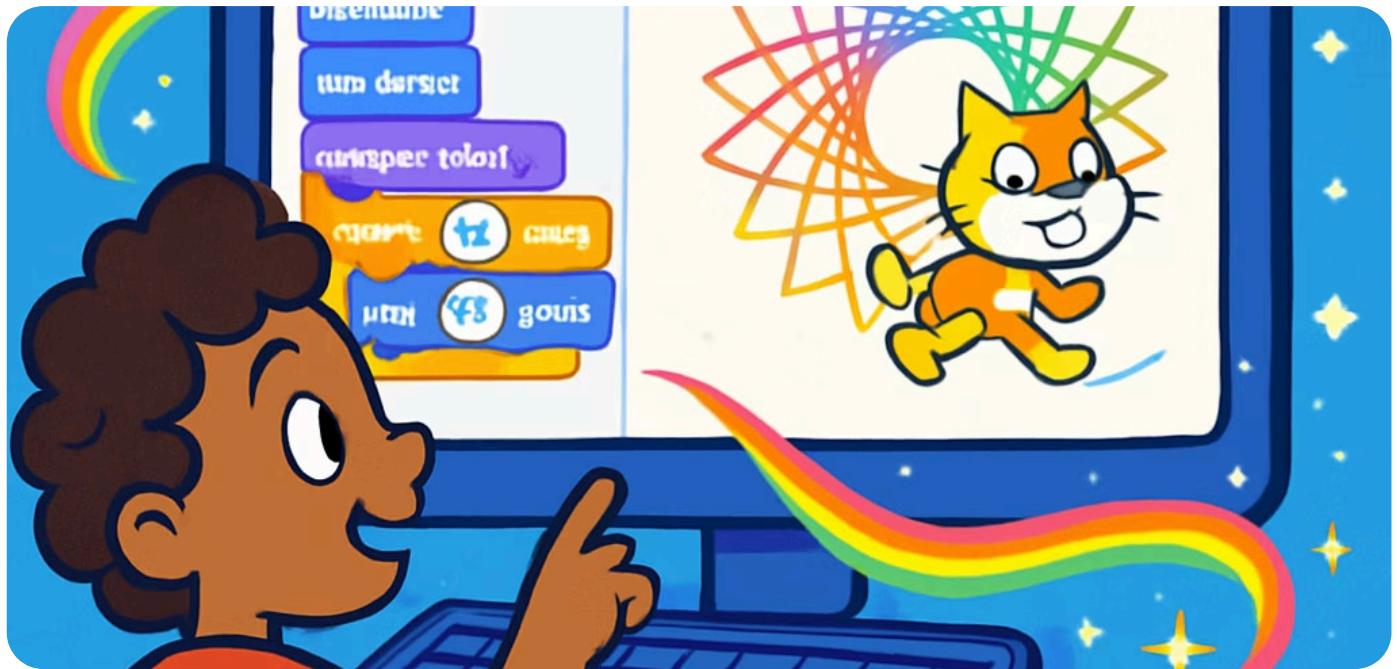
Let's use our **conditional** logic to build a "Weather Bot" that gives advice based on the weather. This is where "if...then...else" really shines!

Goal: If it's sunny, the bot says "Wear sunglasses!" If it's rainy, it says "Take an umbrella!"

- Start with "**when green flag clicked**".
- From "**Sensing**" (light blue), drag an "**ask [What's your name?] and wait**" block. Change the question to "Is it sunny or rainy today?"
- From "**Control**", grab the "**if <> then else**" block. This is our conditional!
- Inside the "<>" shape of the "if" block, go to "**Operators**" (green category) and drag an "**< > = < >**" block. Inside the first oval, drag the "**answer**" block from "**Sensing**". In the second oval, type "sunny".
- Inside the "then" part, add a "**say 'Wear sunglasses!'**" block (from Looks).
- Inside the "else" part, add a "**say 'Take an umbrella!'**" block (also from Looks).

Run your code and type "sunny" or "rainy" in the answer box to see your Weather Bot in action!

Project 7



Loop Art

Did you know you can draw amazing patterns and shapes using **loops**? Let's use the "Pen" extension in Scratch to create some cool art!

- Click the "Add Extension" button (bottom left, looks like two blocks with a plus sign) and choose "Pen".
- Start with "when green flag clicked".
- From "Pen", add "erase all", "pen down", and "set pen color to..." (choose your favorite color!).
- From "Control", grab a "repeat [10]" loop.
- Inside the loop, add "move 10 steps" (from Motion) and "turn [15] degrees" (from Motion). Experiment with these numbers!

Click the green flag to see your drawing! Try changing the repeat number, the move steps, and the turn degrees. Can you make a spiral, a star, or a flower shape? The possibilities are endless!

Your Coding Journey Continues...

Project 8



My First Quiz Game

You've learned so much about conditionals and variables, now let's combine them to create your very own quiz game!

Goal: Create a simple quiz with at least two questions.

- Start with "when green flag clicked".
- Use the "ask [What's 2+2?] and wait" block (from Sensing) for your first question.
- Use an "if <> then else" block (from Control). Inside the "if" condition, use an "< = < >" operator. Put "answer" (from Sensing) in the first slot and the correct answer (e.g., "4") in the second.
- Inside the "then" part, add a "say 'Correct!'" block. Inside the "else" part, add a "say 'Oops, try again!'" block.
- Repeat these steps for your second question!

Can you add more questions? Maybe keep a score using a variable?

Project 9



Build a Pet Simulator

Let your creativity shine by building a virtual pet! Your pet can react to clicks or key presses.

Ideas:

- Draw your own pet sprite or choose one from the library.
- Add a "Feed button" (another sprite) that, when clicked, makes your pet grow bigger or change its expression.
- Add a "Sleep button" that makes your pet close its eyes or change to a sleepy costume.
- Add a "Play button" that makes your pet jump or move around!

Think about how your pet's "mood" or "hunger" could be **variables** that change over time!

YOU DID IT!



MOVE THE
CAT



SAY HELLO



WEATHER
BOT



QUIZ GAME



JUMP
SPRITE

Project Tracker

Look how far you've come! Check off the projects you've completed:

- Move the Cat
- Say Hello
- Dance Sprite
- Jump Sprite
- Weather Bot
- Quiz Game

Final Project:



Create Your Own Game!

Now it's your turn! Use all the amazing skills you've learned—sequence, loops, conditionals, variables, and Scratch blocks—to build something entirely new and unique!

Ideas for your masterpiece:

- 🎮 A thrilling maze game with obstacles and a clear goal.
- 🐶 A virtual pet that needs care and plays mini-games.
- 🌈 An interactive art project where you draw with code or create animated scenes.
- 📚 A choose-your-own-adventure story where player choices change the outcome!

You're a Coder Now!



Congratulations! You've completed the "**Teach Your Kid to Code Vol. 01 - My Day Smart Kit. Code, Plan, Learn!**" workbook and unlocked the exciting world of programming. You've successfully learned:

- Fundamental logic and coding basics
- How to navigate and create in the Scratch interface
- How to build real, interactive projects from scratch!

Remember, every line of code you write is a step towards becoming a brilliant innovator. Keep exploring, keep experimenting, and most importantly, keep coding! The future is yours to build.

This certifies that: _____ has completed the "**My Day Smart Kit. Code, Plan, Learn!**" workbook!

Date: _____

Signed: _____

YOU'RE A CODER NOW!



Congratulations! You've completed the Teach Your Kid to Code Vol. 01 - My Day Smart Kit. Code, Plan, Learn! workbook and unlocked the exciting world of programming. You've successfully learned:

✓ Fundamental logic and coding basics

✓ How to navigate and create in Scratch interface

✓ How to build real, interactive projects from scratch!

Your curiosity, creativity, and determination make you a brilliant coder. Keep exploring, keep experimenting, and most importantly – keep codin! The future is yours to build.



has completed "My Day Smart Kit. Code, Plan, Learn!"

name

MNZT
PARENTHOOD

/ /
date

Reflect & Draw

What was your favorite project or concept you learned in this workbook? Draw it below!

What would you like to build next in Scratch or with code?

 Write or  Draw your ideas!

Enjoy the next few volumes and master your programming skills.



Thank You for learning with us!

Follow for more kid-friendly tech content at:

<https://instagram.com/mnztparenthood>

<https://facebook.com/mnztparenthood>

<https://tiktok.com/mnztparenthood>

<https://mnztparenthood.com>