

# +Tech Academy Kids Coding - Scratch 3.0



Our learning journey is a child friendly, fun & easy learning environment dedicated for children to learn programming without any prior experience. Our learning process is designed to build the next generation tech creators.

### What is coding?

Coding is the new literacy. That's where we come in, to make information technology both a knowledge, skill and an exciting experience for kids in school.

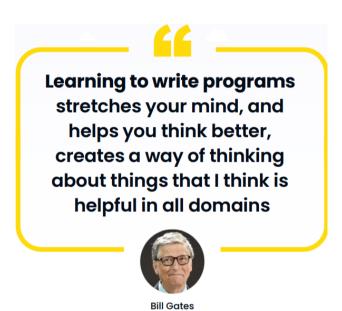
Coding gives children the opportunity to be creators rather than just consumers of technology. Children can use the programs they create themselves to solve problems and develop new ideas.



#### What are the benefits of learning coding?

Coding is proven to develop creativity, logical thinking, mathematical reasoning, focus and problem-solving skills. Once you have been on this journey with us, we ensure that you will find a different side to yourself.

- Helps develop problem solving skills
- Develop analytical and structural thinking abilities
- Enhances creativity and imagination
- Helps find innovative solutions to real-life issues

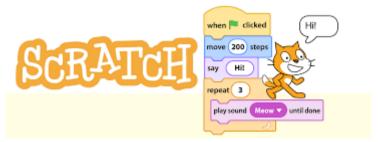


#### **OUR BELIEF**

- We believe in learning more than homework, certificates & competition.
- We believe that the ICT industry is growing faster than any other industry and not shrinking.
  - i.e: TravelTech, AgTech, FinTech, EdTech, MedTech, eSports, eInvestment etc
- We believe that today's vocational education systems should change to prepare everyone to thrive in a complex world.
- We believe that no one should be excluded from secondary vocational education because of financial constraints.
- We believe that our students can enrich their lives with an ICT career.



#### **SCRATCH SYLLABUS:**



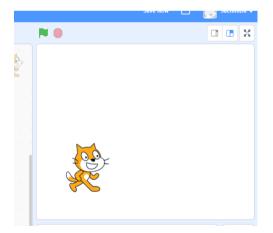
**Scratch** is the world's largest coding community for children and a coding language with a simple visual interface that allows young people to create digital stories, games, and animations.

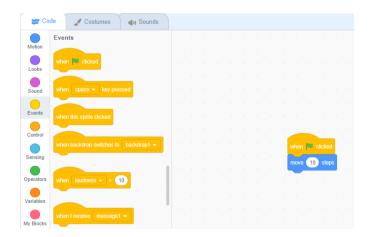
Our students will learn...

- Decomposition. The first step in computational thinking is decomposition.
- Pattern Recognition. Part of computational thinking is also pattern recognition.
- Abstraction. Abstraction is the process of extracting the most relevant information from each decomposed problem.
- Algorithmic Thinking

#### 1. How to move a sprite

Kids will learn how to code a motion part when getting started.







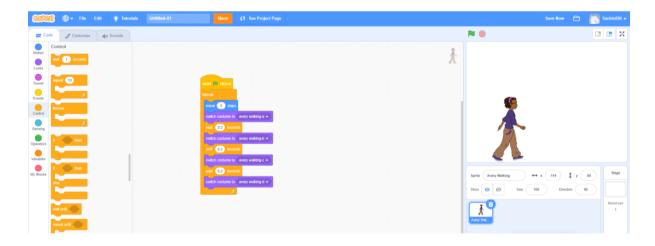
### 2. How to move a sprite in an axis.

- Kids will learn how to move a sprite top to bottom, bottom to top, left to right and right to left.
- Change background and sprite.



#### 3. How to make the character animation

- Kids will learn how an algorithm works. (step by step performing a certain task)
- And they will learn about control structure's sequence part.





### 4. How to make Ballerina dance

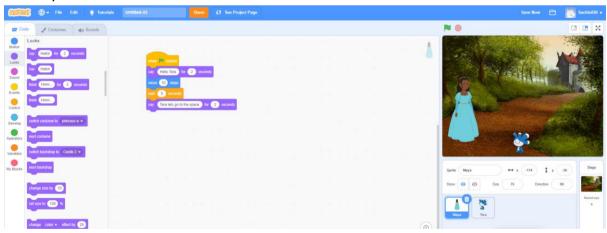
Kids will learn how to make small animations.



## 5. How to make a simple story

• Kids will learn how to think about the concepts of algorithms and abstraction.

### For Maya

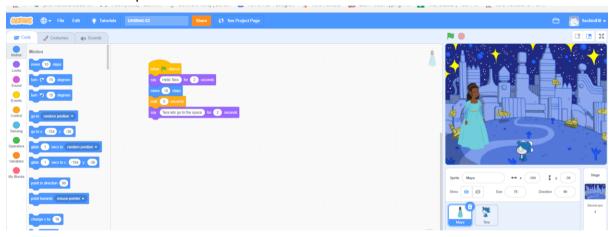




#### For Tera



# In the next backstrop





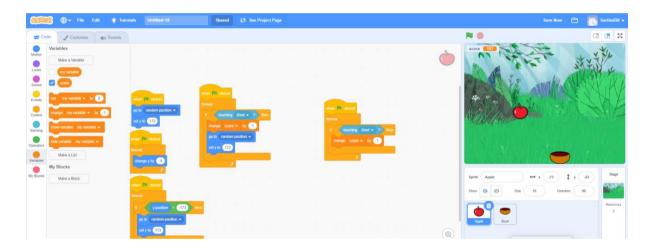
## 6. How to make a catch game

This game has the concept of abstraction.

- How to make an apple fall down from the top.
- Apple should go to random positions.
- When an apple touches the edge it should go to the top of the stage again.
- When the apple touches the bowl, the apple should score.

### For the Apple

Kids will learn about if then block and forever loop with operators



#### For the Bowl

• The bowl should move left and right when pressing the left and right arrow keys.

Kids will learn how to add correct sensing code to the if then blocks.

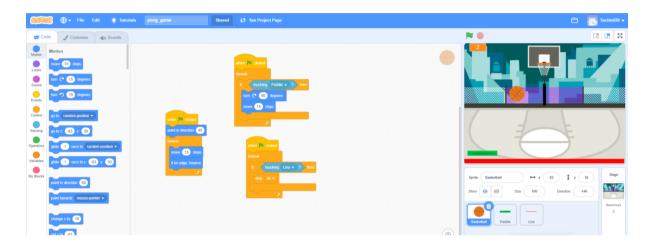




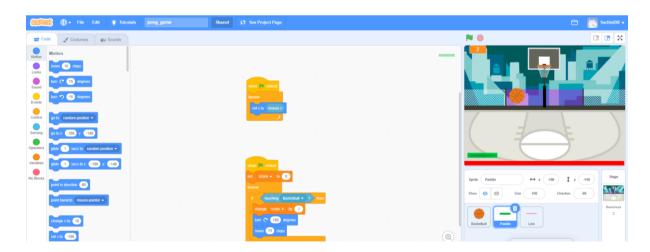
## 7. How to make a pong game

For the Basketball

- Kids will learn about the concept of iteration(repetition).
- Usage of forever and if then blocks furthermore.
- They will learn how to change directions and usage of the forever loop.



#### For the Paddle





## 8. How to make a jumping game

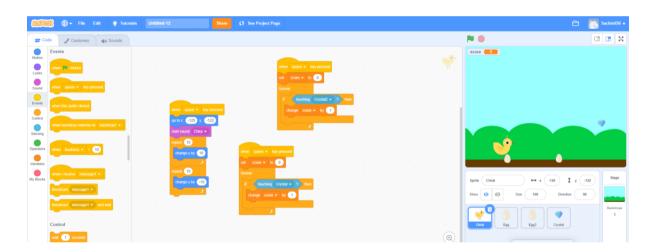
Immensely your kids will learn computational thinking at the end of this course.

- Decomposition
- Pattern recognition
- Abstraction
- Algorithm

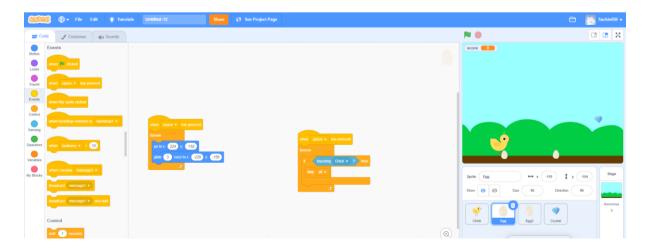
### And control structure

- Sequence
- Selection
- Iteration

#### For the chick



## For egg1





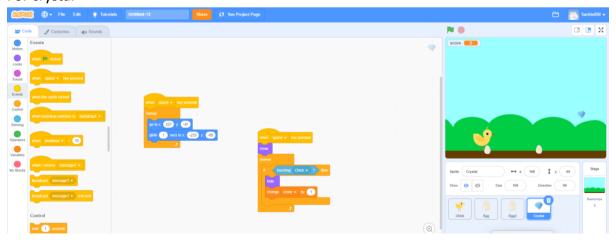
# For egg2



## For egg 2



# For crystal





# 9. How to make a snake game

- Kids will learn what is a variable
- How to create a variable
- Operators

### For Snake



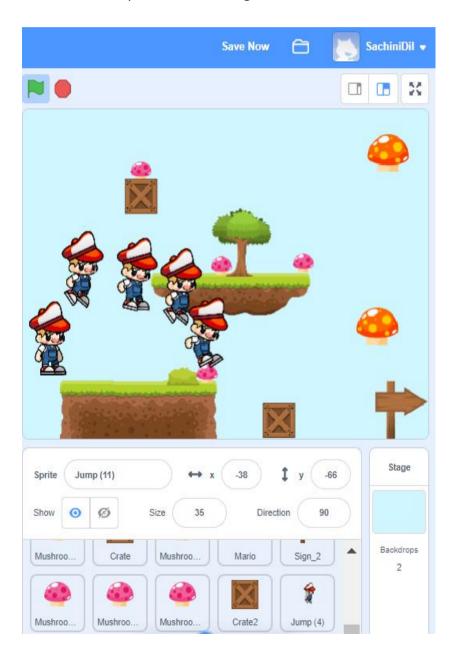
### For the apple



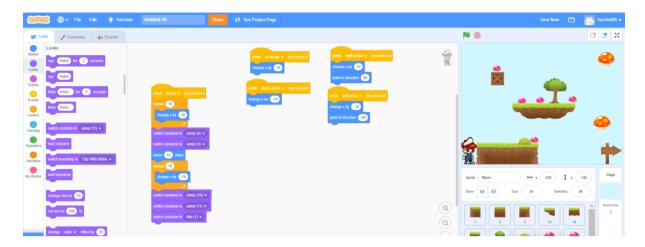


## 10. Platform Game as the final project.

- Kids will learn how to customise the sprites and backgrounds.
- How to animate the sprite
- How to colour pick
- How to use variables
- How to implement control structure
- And computational thinking



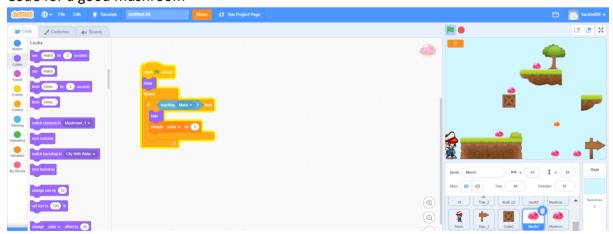




### Code for Mario



## Code for a good mushroom

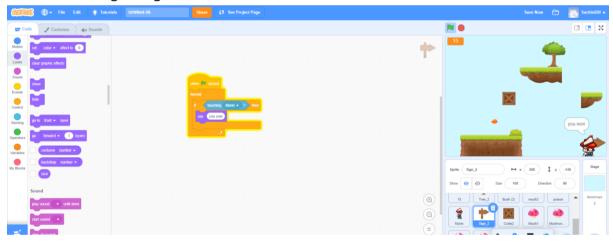




# Code for poison mushroom



# Code for winning dialog





### FAQ: Is your education process beginner friendly?

Definitely! We understand learning minds. We have designed our knowledge sharing approach to suit every need.

#### What kind of equipment does my child need, when learning to code?

All that's needed is a computer (laptop, desktop or tab), and any kind of internet connection to learn remotely. Or you can physically join our Code Champ Coding School in Katubedda, Sri Lanka.

#### How does my child join a class?

You can register through our website www.plustechacademy.com by filling the REGISTER NOW form. Or if you need help choosing a course, our mentors are happy to guide you. Call or WhatsApp on 0742833337.

Developing digital skills will create opportunities for our students to reskill into better careers for roles that employers need now and in the future. **Got more questions?** 

Contact us anytime. (+94) **0742833337**, 0777428427

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"Everybody should learn to program a computer, because it teaches you how to think"

- Steve Jobs