# TRINITY STAR ACADEMY

# S.T.E.M. & CODING PROGRAMS

**Trinity Star Academy**
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# Trinity Star Academy's S.T.E.M.

## What is STEM?

STEM Education is a curriculum focusing on four key disciplines - Science, Technology, Engineering, and Math.

STEM takes an interdisciplinary approach and blended learning environment to show students how the four disciplines can be applied to everyday life.

The integration of the four disciplines into one cohesive learning paradigm prepares students for the 21st century workforce.

As we prepare for the 21st century, Trinity Star's STEM Programs take a high-tech, hands on approach that will teach students to be innovators of the future.

## Why Trinity Star STEM?

Trinity Star's STEM Education teaches 21st century skills to equip students with computational, critical, and creative thinking.

Our interdisciplinary and scaffolding STEM programs take on a hands-on and interactive approach to make learning exciting and fun.

Scaffolding Lessons are important because it provides a platform for students to progress towards greater understanding, ultimately, towards independence in the learning process.

In conjunction with our Interdisciplinary STEM programs, students will build their algorithmic, problem solving, and design thinking skills in our guided, self-paced learning, and step-by-step success.

1. Key Concepts.
2. Step-by-Step Success
3. Interactive and Innovative Approach
4. Guided, Self-Paced Learning
5. Independent Learner
6. Computational, Critical, and Creative Thinking Skills.

## 01

### Junior Block Programming (Age 7 & 8)

Students will learn how to code at a young age which is critical to acquiring computational an problem solving skills.

Starting with block to text programming and Web Development. A complete programme learning path.

## 02

### Junior Text Programming (Age 9 & Above)

Text programming made easy and fun.
There are over 200 levels of challenges and students learn by completing each challenges through gaming concept.

## 03

### Electronics & Programming

### (Middlers Age 12 & Above)

**Electronics & Programming** is a prototyping platform based on flexible, easy-to-use hardware and software. Students will understand the concept of electronics being built and used on a day-to-day basis.

## 04

### Web & Android App Development

### (Seniors Age 12 & Above)

Web development Courses that are designed for high school students.

• Students are taught the process of coming up with solutions and thinking algorithmically on how to solve problems.

• They literally build ideas from thing. Innumerable ways to express creativity.

**Development depends on
student's progress**

## 01   Phase 1

Block Programming enables kids to create their own games, animated stories and interactive art using blocks. Blocks reduce the cognitive load by chunking code into a smaller number of meaningful elements.
Encourage Creativity, Problem Solving, Presentation Skills and Confidence Boosting

## 02   Phase 2

**Computer Science -** Syntax, Arguments, Strings, While Loops, Variables, Algorithms
•**Basic Game Development -** Basic Syntax, Functions, Strings, If Statements, Arguments
• **Basic Web Development -** Variables, Arguments, If Statements, Functions, Basic HTML, Basic CSS, Basic Web Scripting

## 03   Phase 3

Learning steps involves:
• Knowing and understand the use of each components
• Assemble the components based on diagram
• Compile the sketch and sync it to the Micro controller and electronics board
• Execute the program by clicking the power button on the mainboard

## 04   Phase 4

Chapter 1 - Getting Started (Introduction)
Chapter 2 - HTML 5
Chapter 3 - CSS 3
Chapter 4 - Javascript
Chapter 5 – Jquery
Chapter 6 - Bootstrap 4
Chapter 7 – Wordpress Chapter 8 - PHP
Chapter 9 – MySQL
Chapter 10 - Application program interface (API)
Chapter 11 - Mobile Apps
Chapter 12 - HTML 5 & CSS 3 Special Features
Chapter 13 – Python
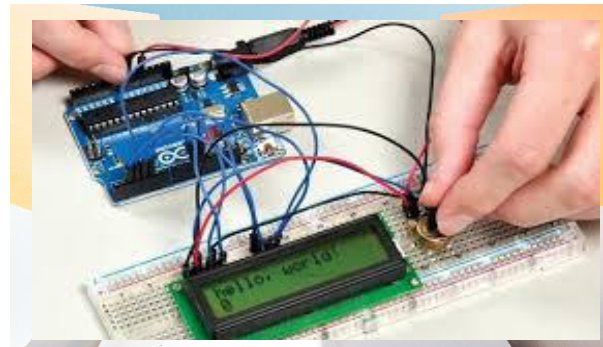Chapter 14 - Twitter Clone Using Model–view controller (MVC)

**Block Programming**

**Text Programming**

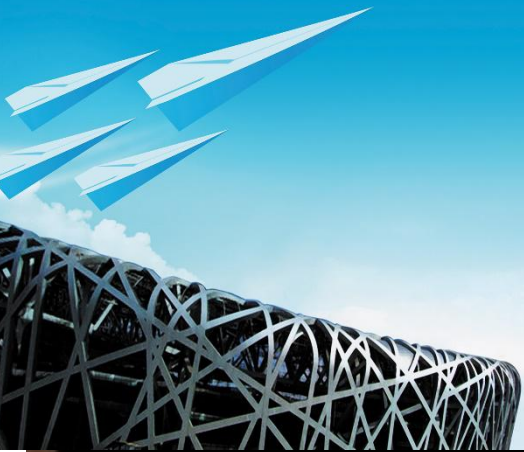**Electronics & Programming**

**Web & Android App Development**

# 3D Design & Printing

**3D Printed Objects in Used in the world today.**

Thank You

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