# **Camp Timing**

# **Camp Timings**



Program Duration	Timing Slots	Programs
Half Day Programs	9:00 AM-12:00 PM 1:00 PM - 4:00 PM	1. Neural IQ 2. Python Kickstart 3. ML/AI 4. Roblox 5. AppSpark 6. Scratch Game
2 hours Programs	9:30 AM -11:30 AM , 1:00 PM - 3:00 PM	1. Bridge The Gap 2. Writing Lab

Please email at <a href="mailto:connect@thegrowwise.com">connect@thegrowwise.com</a> if you have some additional questions.

## **Lunch Options:**

Paid lunch will be available. The GrowWise team will send an email with options to select lunch for specific days for the week.

Disclaimer: Please note that GrowWise may make changes to the curriculum, topics, or lesson structure when needed to improve student outcomes or ensure better alignment with learning goals.

# Bridge The Gap

# Bridge The Gap: Math and English



Class Duration: 2 Hours/ 3 hours (5 sessions/ week)

Grade: 4th-7th Grade

Please contact at connect@thegrowwise.com if you want to purchase a 3 days a week program or 3 hours per day(additional \$75 per week).

#### Note:

Customizing by Subject (English or Math Only):
 The program can be customized if a student needs attention in one subject like English or Math.

• Pick Any Week Option:

You can enroll in the full program or select individual weeks based on your child's schedule and learning needs. Each week focuses on a specific concept, so students can join for the skills they need most.

Upgrade to a 3-Hour Program:

Pay just \$70 extra at the center to extend your child's session to a full 3-hour program.

Our **Bridge The Gap program** is a specially designed program aimed at helping 5th and 6th graders strengthen their foundational skills in **Math and English** to ensure a smooth and confident transition to higher grades. The program focuses on filling learning gaps, boosting confidence, and enhancing problem-solving and comprehension skills.

#### Why Choose Bridge The Gap?

- Smooth Transition to the Next Grade: Helps 5th and 6th graders prepare for the upcoming school year with confidence by bridging learning gaps in Math and English.
- Personalized Learning Experience: Tailored activities and lessons designed to meet each child's unique needs with small group sessions for individual attention and better understanding.
- Engaging & Fun Approach: Interactive lessons, games, and puzzles make learning enjoyable. Real-world applications of Math and English keep students motivated.
- Skill-Building Focus: Strengthens essential skills like problem-solving, comprehension, writing, and analytical thinking while preparing students for more advanced concepts in middle school.
- Progress Tracking & Feedback: Regular assessments and feedback monitor improvement, with personalized reports to help parents understand their child's progress.
- Boosts Confidence & Academic Success: Enhances confidence in handling challenging topics and provides a head start for the next school year.

# Math Gr6

# **Math Advanced**

Note: 1 Hour for each Math and English

Days		Content with Levels for Number of Days	No. Of Hours everyday
5	Beg/int/adv	2/2/1	2/3

## Week 1: Number Sense & Place Value

**Objective:** Strengthen understanding of place value, rounding, and number operations.

Level	Concepts Covered	Activities
Beginner	Place values up to millions, comparing whole numbers, rounding	Place value chart, number comparison game
Intermediate	Decimals to thousandths, ordering decimals, expanded form	Decimal puzzles, converting between forms
Advanced	Scientific notation, complex rounding, number estimation strategies	Problem-solving with large numbers, estimating sums/differences

# Week 2: Operations with Whole Numbers & Decimals

**Objective:** Master addition, subtraction, multiplication, and division of whole numbers and decimals.

Level	Concepts Covered	Activities
Beginner	Addition & subtraction of large numbers, estimation strategies	Step-by-step guided practice, real-life application problems

Intermediate	Multiplication & division with multi-digit numbers	Multiplication/division strategies, interactive games
Advanced	Decimal operations (addition, subtraction, multiplication, division)	Real-world application of decimals (money, measurements)

# Week 3: Fractions – Understanding & Operations

**Objective:** Develop fluency with fraction operations and applications.

Level	Concepts Covered	Activities
Beginner	Identifying fractions, comparing fractions with like denominators	Fraction strips, number line activities
Intermediate	Adding & subtracting fractions with unlike denominators	LCM & GCF for denominator conversion, hands-on fraction puzzles
Advanced	Multiplication & division of fractions	Word problems, solving equations with fractions

# Week 4: Algebraic Thinking & Expressions

**Objective:** Introduction to algebraic expressions, variables, and order of operations.

Level	Concepts Covered	Activities
Beginner	Understanding variables, simple expressions	Translating words to expressions, matching games
Intermediat e	Order of operations (PEMDAS), solving basic equations	Interactive order of operations challenges

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## Week 5: Geometry & Measurement

Objective: Strengthen geometric reasoning and spatial understanding.

Level	Concepts Covered	Activities
Beginner	Identifying shapes, perimeter & area of rectangles	Shape classification, drawing & measuring
Intermediat e	Angles, triangles, and quadrilaterals	Angle measurement activities, classifying polygons
Advanced	Coordinate plane, transformations (translations, reflections, rotations)	Graphing shapes, interactive transformations

# Week 6: Data Analysis & Probability

Objective: Develop data literacy and probability reasoning.

Level	Concepts Covered	Activities
Beginner	Reading bar graphs, simple probability	Collecting & graphing data, probability games
Intermediate	Mean, median, mode, and range	Real-world data collection & analysis
Advanced	Probability with fractions, independent & dependent events	Probability experiments, tree diagrams

# Week 7: Procedural Fluency & Timed Practice

**Objective:** Boost speed and accuracy in core operations.

Level	Concepts Covered	Activities
Beginner	Addition, subtraction, multiplication fluency	Timed drills, vertical computation
Intermediate	Long division, multi-digit multiplication	Grid-based practice, algorithm steps
Advanced	Fraction and decimal operations (no calculator)	Precision drills with step tracking

# Week 8: Concept Reinforcement & Cumulative Review

**Objective:** Strengthen retention of previously taught concepts through structured repetition and skill layering.

Level	Concepts Covered	Activities
Beginner	Mixed review: place value, operations, basic fractions	Rotation-based practice rounds
Intermediate	Fractions, decimals, order of operations, measurement	Focused concept stations
Advanced	Algebraic expressions, probability, transformations	Self-led problem sets with teacher support

# Math Course 2

# Math Course 2/Grade 7

Note: 1 Hour for each Math and English

Days		Content with Levels for Number of Days	No. Of Hours everyday
5	Beg/int/adv	2/2/1	2/3

## **Week 1: Number and Operations Refresher**

#### **Objective:**

- Add, subtract, multiply, and divide integers and rational numbers
- Understand and apply absolute value
- Use properties of operations (associative, distributive, commutative)

# **Week 2: Number and Operations**

#### **Objective:**

- Add, subtract, multiply, and divide integers and rational numbers
- Understand and apply absolute value
- Use properties of operations (associative, distributive, commutative)
- Apply order of operations (PEMDAS) with positive and negative numbers
- Solve multi-step problems involving rational numbers

## Week 3: Algebraic Thinking I

#### **Objective:**

- Evaluate and simplify algebraic expressions
- Write and interpret expressions and equations from word problems
- Understand the properties of equality and inverse operations
- Analyze relationships between quantities and represent them with equations

 Understand equivalent expressions through combining like terms and the distributive property

## Week 4: Algebraic Thinking II

#### **Objective:**

- Solve multi-step equations
- Understand and solve inequalities
- Apply analytical thinking to solve word problems involving equations and inequalities
- Represent solutions to inequalities on number lines
- Check solutions for accuracy and reasonableness

## Week 5: Ratio, Proportions

#### **Objective:**

- Understand and identify proportional relationships in various contexts
- Represent proportional relationships using tables, graphs, and equations
- Solve problems involving proportions using reasoning and mathematical operations
- Find unit rates, including those involving ratios of fractions
- Solve real-world problems involving scale drawings and maps

#### Week 6: Proportional Reasoning

#### **Objective:**

- Understand the relationship between ratios, proportions, and percentages.
- Solve real-world problems involving percent increase, decrease, and error.
- Use proportional reasoning to solve multi-step percent problems, including tax, tip, discount, and markup.
- Convert between fractions, decimals, and percentages fluently.
- Represent percent problems using equations, tables, and tape diagrams.

#### **Week 7: Coordinate Plane**

#### **Objective:**

- Understand and use the coordinate plane to locate and plot points in all four quadrants
- Identify the x- and y-axes, origin, and understand ordered pairs (x, y)
- Analyze patterns and relationships in tables and graph them on the coordinate plane
- Represent linear relationships by plotting points and drawing straight lines
- Solve real-world and mathematical problems by interpreting graphs and the meaning of points on a coordinate plane

# Week 8: Geometry I - 2D Shape

#### **Objective:**

- Classify and compare two-dimensional shapes based on their properties (sides, angles, symmetry).
- Calculate the perimeter and area of triangles, rectangles, parallelograms, and other polygons
- Apply formulas to solve real-world problems involving area of composite 2D figures.
   Understand and use angle relationships (complementary, supplementary, adjacent, vertical).
- Identify and draw transformations of 2D shapes (translations, rotations, reflections, dilations).

# English

# **English**

#### Note:

- 1. 1 Hour for each Math and English
- 2. Content would be changed based on Grade level.

Days	Level	Content with Levels for Number of Days	No. Of Hours everyday
5	Beg/int/adv	2/2/1	2/3

Focus: Advanced Reading Comprehension, Vocabulary, Grammar, and Spelling Objective: To challenge 5th-grade students with high-level reading analysis, vocabulary expansion, grammar mastery, and spelling proficiency, ensuring they are well-prepared for middle school.

#### Week 1: Active Reading Strategies, Context Clues, & Nouns

**Objective:** Develop deep comprehension, analyze word meanings using context, reinforce noun usage, and master spelling patterns.

Focus Area	Activities	Homework
Reading Comprehension	Identify author's purpose, predict outcomes	Read an article and explain the author's intent
Vocabulary	Using context clues to decode unfamiliar words	Find five complex words and define them based on context
Grammar	Nouns: Common, proper, abstract, collective	Identify different types of nouns in a passage

Spelling	Commonly confused words (e.g., their/there/they're)	Write 10 sentences using homophones correctly
Writing	Summarizing and paraphrasing key details	Write a one-paragraph summary of an article

## Week 2: Analyzing Fictional Texts, Word Roots, & Pronouns

**Objective:** Examine deeper story elements, expand vocabulary with Latin and Greek roots, and practice pronouns.

Focus Area	Activities	Homework
Reading Comprehension	Analyze character motivations and theme	Read a short story and describe the main character's journey
Vocabulary	Word roots to determine word meanings	Find and analyze 5 words with Greek/Latin roots
Grammar	<b>Pronouns:</b> Personal, possessive, interrogative, indefinite	Identify and replace incorrect pronoun usage in a passage
Spelling	Prefixes & suffixes (e.g., un-, dis-, -ful, -able)	Make a list of 10 words using prefixes and suffixes

Writing	neme analysis essay	Compare two characters' decisions and how they shaped the story
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#### Week 3: Informational Texts, Synonyms/Antonyms, & Verbs

**Objective:** Strengthen informational text comprehension, enhance vocabulary with word relationships, and practice verb usage.

Focus Area	Activities	Homework
Reading Comprehension	Identify main idea and supporting details in non-fiction	Read a newspaper article and summarize key points
Vocabulary	Synonyms & antonyms for nuanced word choice	Find 10 word pairs and use them in sentences
Grammar	Verbs: Action, linking, helping, verb tenses	Identify and correct verb tense errors in sentences
Spelling	Irregular verb spellings	Practice spelling 10 irregular verbs and use them in sentences
Writing	Persuasive paragraph using strong verbs	Write an argument about why reading is important

## Week 4: Inferencing, Figurative Language & Adjectives

**Objective:** Develop inference skills, explore figurative language, and master descriptive adjectives.

Focus Area	Activities	Homework
Reading Comprehension	Make <b>inferences</b> using textual evidence	Read a passage and infer character motives
Vocabulary	Figurative language: Similes, metaphors, idioms	Identify and explain 5 figurative language examples in books or media
Grammar	Adjectives: Comparative & superlative forms	Write 5 sentences using advanced adjectives
Spelling	Common adjectives spelling list	Study and spell 10 descriptive adjectives
Writing	Descriptive writing using vivid adjectives	Write a setting description using powerful adjectives

#### Week 5: Literary Devices, Contextual Word Meaning & Adverbs

**Objective:** Identify and analyze literary devices, practice using context for word meaning, and refine adverb usage.

Focus Area	Activities	Homework
Reading Comprehension	Examine symbolism, irony, and allegory	Read a poem and analyze the author's word choices
Vocabulary	Multiple-meaning words & homophones	Find 5 homophones and use them correctly in sentences
Grammar	Adverbs: Manner, degree, frequency	Underline adverbs in a passage and replace them with stronger options
Spelling	Commonly misspelled adverbs (-ly endings)	Spell 10 adverbs and use them in sentences
Writing	Short literary analysis essay	Choose a metaphor from a story and analyze its significance

#### Week 6: Argumentative Writing, Word Etymology & Prepositions

**Objective:** Evaluate arguments in reading, understand the origins of words, and use prepositions effectively.

Focus Area	Activities	Homework
Reading Comprehension	Analyze rhetorical techniques (ethos, pathos, logos)	Read a persuasive article and identify persuasive techniques
Vocabulary	Word etymology: How words evolve over time	Research the origin of five words and their transformations
Grammar	Prepositions & prepositional phrases	Write sentences using prepositional phrases
Spelling	Prepositions spelling challenge	Write a paragraph using at least 10 different prepositions correctly
Writing	Persuasive essay using logical arguments	Choose a topic and defend your opinion

## Week 7: Comparative Reading, Intertextual Analysis & Conjunctions

**Objective:** Compare multiple texts and perspectives, analyze connections, and improve conjunction usage.

Focus Area	Activities	Homework
Reading Comprehension	Compare two articles on the same topic with differing views	Find two sources with opposing opinions and summarize their arguments

Vocabulary	High-level transition words for smooth writing	Use transition words in a compare/contrast paragraph
Grammar	Conjunctions: Coordinating, subordinating, correlative	Identify and replace incorrect conjunction use in a paragraph
Spelling	Common conjunctions & compound words	Spell and correctly use 10 conjunctions in sentences
Writing	Compare/contrast essay on two texts	Compare two books on similar themes

## Week 8: Poetry, Advanced Word Analysis & Interjections

Objective: Read and analyze poetry, understand deep word connotations, and use interjections effectively.

Focus Area	Activities	Homework
Reading Comprehension	Identify tone, mood, and poetic structure	Read a poem and analyze the effect of word choice
Vocabulary	Connotation vs. denotation of words	Find words with positive and negative connotations
Grammar	Interjections and sentence variety	Write a dialogue using interjections effectively

Spelling	Common interjections spelling challenge	Write sentences using interjections correctly
Writing	Poem using vivid imagery	Use sensory details and strong vocabulary

# Writing Lab

# **Writing Lab**



**Grades: 3 and above (**Writing expectations are differentiated by grade, with older students producing more detailed and extended responses.**) Duration:** 5 Sessions per Week | 2 Hours per Session (Total: 10 Hours)

Mode: In-Person / Online

**Goal:** Build strong, confident writers through stories, essays, grammar reinforcement, and interactive writing games.

**Outcome:** One complete writing piece per week ,15 vocabs based on chosen topic and final printed writing portfolio

Please contact at connect@thegrowwise.com if you want to purchase 3 hours per day (additional \$75 per week).

## Week 1: Spark a Story - Narrative Writing Basics

**Project**: Short fictional story

Writing Focus: Character, setting, plot

**Grammar Focus**: Sentence types, punctuation, capitalization

Interactive Activities: Story dice, peer plot twist game

**Peer Review**: Character feedback exchange, story starter swaps

**Outcome**: Polished fictional short story

#### **Week 2: My True Story – Personal Narrative**

**Project:** A memory-based story

Writing Focus: Emotions, details, sequencing

**Grammar Focus:** Past tense verbs, personal pronouns **Interactive Activities:** "Emotion Walk," memory map

**Peer Review:** Personal experience story circle (feedback using 2 stars and 1 wish)

**Outcome:** Personal narrative essay

#### Week 3: Describe This – Descriptive Writing

**Project:** Description of an object, place, or moment **Writing Focus:** Show-not-tell, sensory writing

**Grammar Focus:** Adjectives, prepositions, vivid verbs **Interactive Activities:** Secret object writing, image reveal

Peer Review: Peer review with highlighter feedback (circle best details, underline vivid

words)

**Outcome:** Descriptive paragraph or mini-essay

#### Week 4: Mystery or Adventure Story

**Project:** Suspense or adventure fiction **Writing Focus:** Dialogue, tension, pacing

**Grammar Focus:** Quotation marks, sequencing words, commas **Interactive Activities:** Mystery box challenge, "Build-a-Twist" game **Peer Review:** Dialogue partners: check for clarity and character voice

**Outcome:** Mystery or adventure short story

#### **Week 5: Persuasive Power – Opinion Writing**

**Project:** Persuasive essay on a topic they care about

Writing Focus: Claim, reasons, evidence

Grammar Focus: Transition words, contractions, subject-verb agreement

Interactive Activities: Mini-Debates, "This or That" opinion game

Peer Review: Peer rubric scoring and suggestion notes

Outcome: Persuasive essay with logical structure

#### Week 6: Inform Me - Informational Writing

**Project:** How-to article or topic explanation

Writing Focus: Clarity, organization, text features

**Grammar Focus:** Present tense, conjunctions, plural nouns

**Interactive Activities:** Teach-me presentation, partner peer-teaching **Peer Review:** Partner quiz: Did your writing clearly explain the topic?

Outcome: Informational writing piece

#### Week 7: Compare & Reflect

**Project:** Compare/contrast paragraph and reflective journal entry **Writing Focus:** Organizing comparisons, reflecting on experiences

**Grammar Focus:** Comparative/superlative adjectives, synonyms, transitions

**Interactive Activities:** reflection card prompts

**Peer Review:** Peer comparison checklists – Are the points clear and balanced?

**Outcome:** One compare/contrast piece + journal entry

#### Week 8: All About Me – Autobiographical Writing

**Project:** Autobiographical story or "About Me" essay **Writing Focus:** Life events, self-description, voice

Grammar Focus: Tense consistency, paragraph transitions, pronouns Interactive Activities: "Timeline of Me," fact vs. feeling journaling Peer Review: "3 Compliments & 1 Connection" peer gallery walk Outcome: Polished autobiographical essay or creative self-story

# Neural IQ

# **Neural IQ Trailblazer**



Ages: 5+ years and above

**Program Format:** 3 Hours per Day( 5 sessions/ week)

**Total Duration:** 15 Hours

Class Mode: In-Person or Online

## Week 1: Pattern Detectives - Crack the Code

Ideal for Ages: 5-8

Level: Easy to Hard

#### **Focus Areas:**

Non-Verbal Reasoning: Visual patterns, sequencing, shape recognition

Verbal Reasoning: Naming and describing patterns

Outcome: Improved visual recognition and logical thinking

#### Week 2: Word Wizards - Verbal Reasoning Fun

**Ideal for Ages:** 6–9

Level: Easy to Hard

**Focus Areas:** 

- Verbal Reasoning: Vocabulary, analogies, classification
- Non-Verbal Reasoning: Picture-word matching, symbol decoding

Outcome: Boosted vocabulary, verbal logic, and language confidence

#### Week 3: Brain Builders – Logic & Deduction

**Ideal for Ages:** 7–10 **Level**: Easy to Hard

#### **Focus Areas:**

- Verbal Reasoning: If-then statements, clues, deduction
- Non-Verbal Reasoning: Symbol-based logic puzzles

**Outcome:** Strengthened deduction and problem-solving skills

#### **Week 4: Picture This! – Non-Verbal Reasoning Lab**

Ideal for Ages: 5-9

Level: Easy to Hard

#### **Focus Areas:**

- Non-Verbal Reasoning: Spatial logic, visual sequencing, analogies
- Verbal Reasoning: Descriptive storytelling from visuals

Outcome: Enhanced visual reasoning and creativity

#### Week 5: Think Quick - Speed & Flexibility

Ideal for Ages: 6-10

**Focus Areas:** 

- Verbal Reasoning: Rapid recall, mental flexibility in categories
- Non-Verbal Reasoning: Sorting by multiple rules (color, shape, order)

Outcome: Faster thinking, improved focus, and mental agility

#### Week 6: Puzzle Masters – Strategy & Problem Solving

**Ideal for Ages:** 7–10 **Level**: Easy to Hard

#### **Focus Areas:**

- Verbal Reasoning: Instruction following, logic in language
- Non-Verbal Reasoning: Strategic puzzle assembly

Outcome: Improved planning, teamwork, and critical thinking

#### Week 7: Compare, Classify & Conquer

Ideal for Ages: 6–9 Level: Easy to Hard

#### Focus Areas:

- Verbal Reasoning: Naming, grouping, and sorting using logic
- Non-Verbal Reasoning: Visual classification, sorting by traits

Outcome: Sharpened analytical thinking and organization

#### **Week 8: Trailblazer Brain Games Bonanza**

Ideal for Ages: 5-10

Focus Areas:

- Verbal Reasoning: Mixed language games and peer puzzle sharing
- Non-Verbal Reasoning: Visual puzzles, pattern decoding

Outcome: Reinforced learning, skill celebration, and confidence boost

# Roblox

# Roblox



Ages: 9-14 | No prior coding required

**Duration:** 4 Levels | 2 Weeks per Level | 30 Hours Each (3 hrs/session)

**Tools:** Roblox Studio + Beginner-Friendly Lua Scripting **Outcome:** One complete, playable Roblox game per level.

#### **How It Works**

- Each level is **independent** students can join one, some, or all levels
- Every student completes one full game project per level
- Designed for beginner to intermediate coders ages 9–14
- Uses visual tools + simplified Lua scripting
- Includes game design, coding, testing, and presentation

## **LEVEL 1: Dress to Impress**

**Ages:** 9–12

Final Game: Avatar styling game with theme-based fashion shows and voting.

#### What Students Will Learn:

- Using Roblox Studio to build a runway environment
- Scripting avatar outfit changes using HumanoidDescription
- Creating theme cards and a basic voting system
- Adding transitions, lighting, and interactive buttons

#### **Learning Outcome:**

Build a fun, social fashion game that lets players dress up and compete for style points.

#### **LEVEL 2: Adopt Me – Pet Care Simulator**

**Ages:** 10–13

**Final Game:** Pet simulator where players adopt and care for virtual pets.

#### What Students Will Learn:

- GUI scripting to adopt and display pets
- Scripting pet follow mechanics using CFrame
- Creating buttons for feeding, playing, and cleaning
- Basic animations and sound integration

#### **Learning Outcome:**

Build a nurturing pet simulator that teaches logic, interaction, and state tracking.

#### **LEVEL 3: Brookhaven**

**Ages:** 10-14

**Final Game:** Small roleplay town where players choose houses, drive cars, and use tools.

#### **What Students Will Learn:**

- Building roads, homes, and environment layouts
- Spawning houses using GUI buttons
- Adding driveable vehicles
- Using tools like pizza boxes, phones, and flashlights

#### **Learning Outcome:**

Create an immersive open-world town where students explore world-building and interactive roleplay.

# **LEVEL 4: Obby Challenge – Obstacle Course Game**

**Ages:** 9–14

**Final Game:** A competitive obstacle course with checkpoints, kill bricks, and a timer.

#### What Students Will Learn:

- Building jumps, spinners, moving platforms
- Scripting kill parts, respawn points, and checkpoints
- Creating local timers and tracking fastest completion times
- Adding game polish: effects, sounds, and power-ups

### **Learning Outcome:**

Design a full Obby game that challenges players while teaching spatial design and logic.

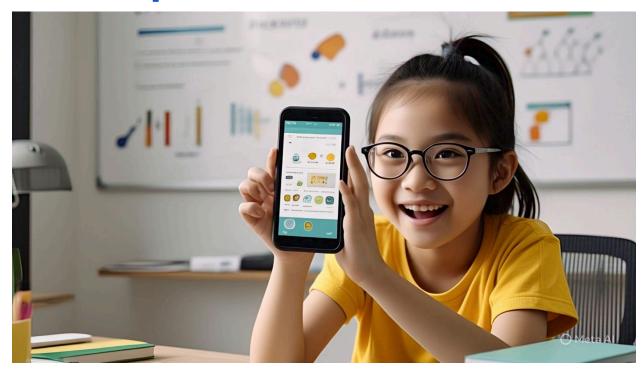
### Important:

Early Finisher Challenges: Stretch goals for advanced students in every level

•	Certificates & Game Portfolios: Every student receives a completion certificate + shareable game link

# AppSpark

# App Spark: Web & Mobile App Development



**Ages:** 11+ (Middle & High School Students)

Program Format: 4 Levels | 2 Weeks per Level | 3 Hours per Session

**Total Duration:** 30 Hours

Class Mode: In-Person or Online

Project-Based Learning | No Prior Experience Required | Independent

Levels

# **Program Overview**

GrowWise's App Spark program introduces students to the world of web and mobile app development through HTML, CSS, and JavaScript. Every level is carefully designed to be self-contained, allowing students to complete a fully functional app by the end of each level. This is a beginner-friendly program with step-by-step learning and guided projects. Every level is independent.

# **Level 1: Personal Profile Web App**

**Focus:** HTML & CSS Foundations **Final App:** Personal Profile Website

Students build a one-page personal website that includes their bio, hobbies, and images. They learn how to structure content using HTML and apply basic styling using CSS.

### **Topics Covered:**

- HTML structure: headings, paragraphs, images, links
- Intro to page layout using divs and sections
- CSS styling: fonts, colors, spacing, borders, alignment

# **Level 2: Clicker Game Web App**

Focus: JavaScript Basics & Event Handling

Final App: Clicker Game App

Students create a fun clicker game where every button click increases a score. This level introduces JavaScript functions, variables, and real-time event

handling.

# **Topics Covered:**

- Review of layout using HTML and CSS
- Introduction to JavaScript: variables and functions
- Event listeners and dynamic scoring logic
- Interactive UI enhancements

# **Level 3: Choose Your Story App**

Focus: JavaScript Logic, Branching & DOM Manipulation

Final App: Interactive Story App

Students build a text-based adventure where users make decisions to determine the outcome of a story. This level strengthens logic-building and condition handling.

#### **Topics Covered:**

- JavaScript conditionals: if/else and switch statements
- DOM manipulation for showing/hiding content
- Story mapping and user navigation
- Adding multimedia elements to enhance experience

# Level 4: Flashcard Quiz App

Focus: User Interaction and Advanced JavaScript Logic

Final App: Quiz App What Users Can Do:

- Select a subject (like Math, Vocabulary, Science)
- View one flashcard at a time
  - Front: Shows a question or prompt
  - o Back: Reveals the answer on click or flip
- Navigate using "Next" and "Previous" buttons
- Mark cards as correct or incorrect
- See a running score or percentage of correct answers
- Use on **desktop or mobile**, thanks to responsive design

# **Topics Covered:**

- Input handling with forms
- Storing and processing user responses
- Reply generation using logic trees
- Styling the chat interface for usability

# **Program Benefits**

- Build real, functional web apps by the end of the course
- Learn industry-relevant tools: HTML, CSS, JavaScript
- Develop creative thinking, logic, and coding confidence
- Portfolio-ready projects for future STEM opportunities
- Guided, beginner-friendly format—no prior coding required

# Python Kickstart

# **Python Kickstart**



**Ages:** 11+ (Middle & High School Students)

Program Format: 4 Levels | 2 Weeks per Level | 3 Hours per Session

**Total Duration:** 30 Hours

Class Mode: In-Person or Online

Project-Based Learning | No Prior Experience Required | Independent

Levels

# Level 1: Python Fundamentals (Understanding the Basics)

**Pre-Req: None** 

**Objective:** Introduce students to Python and basic syntax.

**Outcome:** Students should be able to write simple Python programs and understand basic

data types and operations.

# **Module 1: Introduction to Python**

- What is Python? (Simple explanation, real-life applications)
- How to Set Up Python (Installation guide, using IDLE or Jupyter Notebook)
- Writing Your First Python Program (print("Hello, world!"))

#### **Module 2: Basic Python Syntax**

- Variables & Data Types (Numbers, Strings, Boolean, Lists)
- Operators (Arithmetic, Comparison, Logical)
- Basic Input/Output Operations (input() function for user interaction)

#### **Activities:**

- 1. Writing a basic Python script
- 2. Creating a simple calculator
- 3. Practicing with variables (store name, age, and favorite color)

### **Level 2: Control Structures and Functions**

### Pre-Req: Level 1 completed

**Objective:** Teach students how to make decisions using conditional statements and loops. **Outcome:** Students should be able to write programs using decision-making and loops.

#### **Module 1: Control Structures & Flowchart Thinking**

- Conditional Statements (if, elif, else)
- Loops (for loop, while loop)
- Problem-solving approach (Using Flowcharts & Algorithms)

#### **Activities:**

- 1. Guess the Number Game
- 2. Create a simple voting eligibility program
- 3. Print numbers from 1 to 10 using loops

#### **Module 2: Functions**

- What are Functions? (Breaking tasks into smaller steps)
- Defining and Calling Functions (def my\_function():)
- Using Parameters & Return Values

#### **Activities:**

- 1. Create a function that greets a user
- 2. Write a function that calculates the area of a rectangle

# **Level 3: Python Data Structures**

Pre-Req: Level 2 completed

Objective: Learn how to work with collections of data.

**Outcome:** Students should be able to store, retrieve, and manipulate data using lists, tuples, and sets.

#### Module 3: Introduction to Data Structures

- Lists (Creating, Adding, Removing, Accessing elements)
- Tuples (Immutable data storage)
- Sets (Unique collections)

#### **Activities:**

- 1. Create a list of favorite foods and modify it
- 2. Use a tuple to store the days of the week
- 3. Create a set of unique numbers from a list

#### Module 4: Engaging with Data Structures to Solve Real-Life Challenges

- Storing Student Information (name, age, grade) in a list
- Organizing a shopping list program
- Checking if an item is in stock using a set

#### **Activities:**

Build a contact list using dictionaries Create a personal to-do list using lists

# Level 4: Real-Life Projects & Practical Applications

# Pre-Req: Level 3 completed

**Objective:** Apply knowledge to real-life projects to build confidence.

**Outcome:** Students should be able to develop simple applications independently.

### **Module 5: Mini-Projects**

- Create a Quiz Game (Using Lists & Conditional Statements)
- Develop a Student Grade Calculator
- Simple Chatbot using Functions and Input

#### **Activities:**

- 1. Build a chatbot that responds with basic greetings
- 2. Create a BMI calculator
- 3. Develop a flashcard program to learn new words

# ML/AI

# ML/AI



**Ages:** 13+ (Middle & High School Students)

Program Format: 4 Levels | 2 Weeks per Level | 3 Hours per Session

**Total Duration:** 30 Hours/Level **Class Mode:** In-Person or Online

Project-Based Learning | No Prior Experience Required | Independent

Levels

**Duration: 4 Levels, Each 2 Weeks (30 Hours per Level)** 

Mode: Live Online / Hybrid/ In-person

# Projects: Students will work on one project at each level.

Note: Projects may change based on the pace at which students are learning. Basic **JavaScript** and **HTML** will be taught at every level, just enough to load a model, display results, and modify logic.

#### What Students Will Achieve in 2 Weeks:

• Understand how Al works in real life—from smart assistants to text recognition

- Build and train a machine learning model to classify user input using Python and scikit-learn
- Create a smart Al chatbot with a fully functional GUI using Tkinter
- Master key Al concepts like supervised learning, intent recognition, and NLP basics
- Showcase a complete, working chatbot project with code, logic, and real-time interaction
- Develop tech fluency and ethical awareness around how Al impacts the world
- Collaborate, debug, and present like real developers—using GitHub, peer reviews, and live demo

# **Course Overview**

Levels	Topics Covered	Key Projects
Level 1	Introduction to AI & How AI Learns	Al Chatbot, Al Image Recognition
Level 2	Machine Learning for Beginners	Handwriting Recognition, Al Sorting Game
Level 3	Al in Everyday Life & Ethics	Al Art Generator, Al Voice Assistant
Level 4	Building an Al Project	Al-Based Final Project

# Level 1: Introduction to AI & How AI Learns

Goal: Understand what AI is, how it works, and create simple AI applications.

Pre-Req: None

#### Week 1: What is Al?

Day	Topic	Projects (One Projects / batch )
1	Python Sprint Day 1	
2	Python Sprint Day 2	Coding and Libraries
3	What is AI? How does AI work? Type of AI AI vs. Human Intelligence AI in the Real World	

4	How Al Learns (Supervised Learning)	Mini Projects
5	Start Project Building (Planning and knowing the resources including Github account setup)	

#### Week 2: Hands-On Al

Day	Topic	Project(One Projects / batch )
6	Al & Text Recognition  Quick Core Concepts:  1. Supervised Learning 2. Intent Recognition 3. Text to Numbers 4. Data, Model and Response	
7	Prepare the Training Data (Intent + User Input)     Train the ML Model	Al Chatbot
8	Build the GUI using Tkinter     Publish your project	
9	Code Testing and Peer Reviews Day	
10	Project ShowCase Day	

# **Level 2: Machine Learning for Beginners**

Goal: Learn how AI makes predictions, understand datasets, and create basic AI models.

**Pre-Req:** This level requires a basic understanding of how AI models work and learn from data, which can be gained through Level 1. Or external resources..

#### Week 1: Al Learns from Data

Day	Торіс	Project
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1	Python Sprint Day 1 Note: If Level 1 completed then will learn scikit-learn, plotly, matplotlib	Coding and Libraries
2	Python Sprint Day 2	Mini Projects
3	What is Machine Learning? Training Al Models Understanding Datasets	Explore an Al Dataset(For Level 1  Completed)
4	Teaching AI to Make Predictions,AI Bias & Ethical AI	How Can Al Be Wrong?(Case
5	Start Project Building (Planning and knowing the resources including Github account setup)	Study)

# Week 2: Simple Al Models

Day	Topic	Project
6	Quick Core Concepts:  1. Supervised Learning 2. Regression 3. Features and Labels 4. Prediction 5. Visualization	Al Predicts Student Test Scores
7	Prepare Dataset (Can use Kaggle or some other)	
8	<ol> <li>Train a Simple Model</li> <li>Make Predictions +         Visualize</li> <li>Publish Your Code</li> </ol>	
9	Code Testing and Peer Reviews Day	
10	Project ShowCase Day	

# Level 3: Al in Everyday Life & Ethics

Goal: Learn how Al impacts our world and experiment with ethical Al applications.

Pre-Req: Level 2

### Week 1: Al in Our World

Day	Topic	Project(One Projects / batch )
1	Python Sprint Day 1 Note: If Level 1 completed then will learn scikit-learn, plotly, matplotlib	Train an Al to Classify
2	Python Sprint Day 2	News as Real or Fake
3	What is Fake News?(Discuss types of misinformation, real-world examples, and Al's role in media analysis)	
4	Intro to Text Classification     Exploring the Dataset     Ethics of Al	
5	Start Project Building (Planning and knowing the resources including Github account setup)	

### Week 2: Al for Good & Ethical Al

Day	Topic	Project
6	Train the Classifier	
7	Evaluate and Improve	Al Can Be Wrong (Fixing Al
8	Build a simple UI Publish Your Code	Bias)
9	Code Testing and Peer Review	
10	Project ShowCase Day	

# Level 4: GrowWise Al Project Lab

**Goal:** Create a project "Al Recommends Personalized Learning Paths". This is a signature project and the best project and accurate recommendation project will be published on GrowWise website with student name.

Pre-Req: Level 1 or 2 is completed

# Week 1: Brainstorming & Planning

Day	Topic	Project
1	Choosing a Final Al Project	Brainstorm Al Ideas
2	Planning AI Features	Al Feature Checklist
3	Collecting Data for Al	Build a Small Dataset
4	Training AI for Your Project	Teach Al to Work
5	Testing AI	Find Mistakes & Improve Al

#### Week 2: Al Showcase

Day	Topic	Project
6	Refining Al Model	
7	Adding Final Touches	
8	Preparing AI Presentation	Al Recommends Personalized Learning Paths
9	Al Showcase Rehearsal	
10	Final Al Showcase	

# Scratch Game Coding

# **Scratch Game Coding**



### 8-Week Game Creation Journey for Kids

Unlock your child's creativity and logic skills with our hands-on Scratch programming course. Kids build a new game every week—no prior experience needed!

**Ages:** 7–12

**Duration:** 8 Weeks — 1 Game per Week. Pick the weeks that fit your child's schedule.

Week	Game Title	Key Concepts Introduced
Week 1	Maze Runner	Motion blocks, arrow key controls, collision detection
Week 2	Catch the Apple	Random movement, variables, loops, scoring

Week 3	Whack-a-Mole	Timing, conditional logic, mouse events, speed control
Week 4	Pong Game	Bounce effects, paddle movement, edge detection, sound blocks
Week 5	Platform Jumper	Gravity simulation, jumping logic, backdrop switching
Week 6	Treasure Hunt	Broadcast messages, hidden objects, coordinates, multiple levels
Week 7	Space Shooter	Cloning, projectile logic, hit detection, sprite health tracking
Week 8	Build Your Own Game	Independent game creation: plan, design, code, and present