

# The Future of Education

In a world dominated by technology, today's youth need to understand how it works in order to thrive. Children of today need to build 21st century skills like critical thinking, problem solving and creativity.

Alphagen Learning is an online academy that provides 1 on 1 classes for kids and teens across several areas of technology including coding, graphic design, virtual reality and more.

Our goal is to empower this new generation, equipping them with critical life skills that help them unlock their own ideas and passions through technology.



## Holiday Camps '21

**Age 13 - 16**

The season of fun and learning has begun.  
Make sure your child makes the most out of it!

Call or message us

+65 96507344

## Camps Available for Age 13 - 16

Click on the buttons to go directly to a camp

Coding with Microsoft  
MakeCode

Get creative with visual programming

Mobile App Development

From the enjoyment of experiencing to the joy of creating

Web Development

From consumer of content to empowered creator

Image Editing

A great tool in a teenager's arsenal

Computer Skills for School

Make schoolwork a breeze

3D Printing

Visualise, plan & create in 3D

Augmented & Virtual Reality

The storytelling toolkit of the future

Microbit

Become a digital creator

## Camp Structure

Receive a certificate upon completion of each camp

Live 1-on-1 sessions online

Experienced teachers

Flexible timing

Personalised lessons

5 day camp: Monday to Friday

90 minute interactive class

Receive a certificate upon completion of each level

## Certifications

MakeCode Maestro



App Trailblazer



Web Development Wizard



## Coding with Microsoft MakeCode

Get creative  
with visual  
programming



## MakeCode 13-16 yrs old

1 Camp Available

\$225/camp

5 days • Monday thru Friday • 90 mins per day

Harness the endless possibilities of your teenager's imagination. MakeCode is an advanced platform under the aegis of Microsoft, that allows users to visualise and execute projects with immediate results. Familiarity with MakeCode will form a bridge between block-based and text-based programming, to allow our campers to get as creative and technical as they wish!

**Best suited for:** Everyone!

### Skills Developed

Logical  
Reasoning

Problem  
Solving

Game  
Design

Critical  
Thinking

## Coding with Microsoft MakeCode

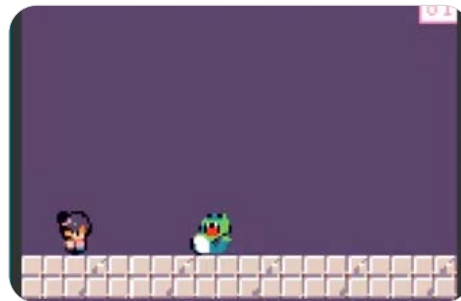
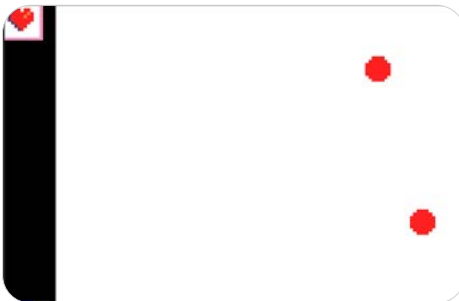
- This camp introduces teens to fundamental programming concepts and opens the door to an exciting world of technology.
- Simulates advanced programming concepts in an easy-to-understand visual environment with drag-and-drop functionality

### Core Learning

- Appreciate the role of technology and programming in our everyday world
- Fundamental programming concepts including conditionals, variables, loops, and more - a key stepping stone to understanding other areas of technology.
- Stronger links with mathematics and logic rooted in a scientific inquiry process

**Prerequisites:** This is a beginner level camp with no experience necessary.

### Sneak Peek



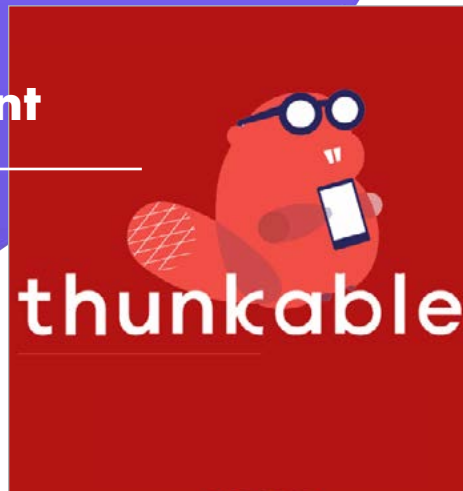
Projects include arcade style games like Dodge the Snake and a multi-player pong game!

## System Requirements

A laptop or tablet with connected keyboard and mouse, webcam, and a good Wi-Fi connection.

## Mobile App Development

From the enjoyment of experiencing to the joy of creating



## Thunkable 13-16 yrs old

2 Camps Available

\$225/camp

5 days • Monday thru Friday • 90 mins per day

Mobile apps are essential to how we chat and connect, play and learn. Every year, the world downloads over 200 billion mobile apps! Gift your child this all-important perspective, as they learn to create their very own mobile apps to entertain, inform and engage. Thunkable has a drag and drop interface to design and develop apps with blocks of code. Your child can tinker and play on a tool used for real-world app development!

**Best suited for:** Teens who love their smartphones.

### Skills Developed

Logical Reasoning

Design Thinking

UX Design

Creative Expression

### Mobile App Development

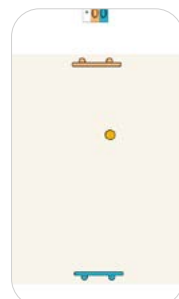
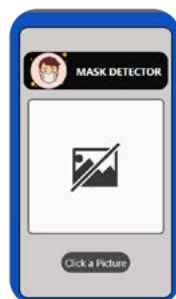
- Learn to look at app design from a User Experience (UX) perspective.
  - Deploy creativity in designing features that others enjoy using
- Enhance computational thinking and test outcomes using drag-and-drop blocks
- Journey from being a consumer of technology to a creator of technology

## Camp 1 App Trailblazer Core Learning

- Aspiring young developers will learn how apps are created and the magical power of the right app for the right audience.
- Gain experience on the Thunkable platform and learn to use elements like images, interfaces, buttons, sounds and more.
- By the end of the week, campers would have experience creating a two player game, and apps that use Web APIs that provide them access to an endless world of future app ideas.

**Prerequisites:** This is a beginner level camp with no experience necessary.

### Sneak Peek



Projects include a mask detector, multi-player games like the pong game and tank wars



## Camp 2

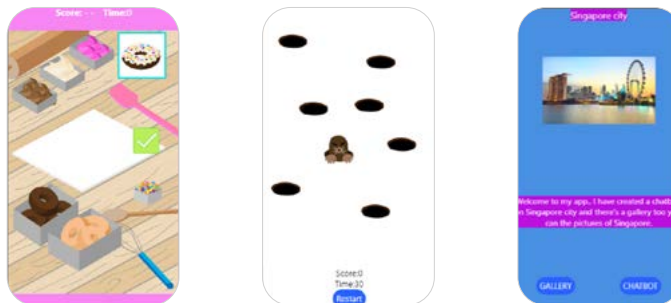
# App Developer

### Core Learning

- Your junior developer will move on to even more complexity and excitement and build apps using smartphone sensors and Web APIs that provide them access to an endless world of future app ideas.
  - Students will test their apps and interact with sensors on their mobile device.
- Your teen demonstrates a newfound appreciation for the function of the everyday apps they use, along with the confidence to ideate new apps

**Prerequisites:** Students need to have completed Mobile App Development Camp 1 or similar introductory course as a prerequisite.

### Sneak Peek



Projects include a Singapore city guide and a simulated donut store.

## System Requirements

- A laptop with connected keyboard and mouse, webcam, and a good Wi-Fi connection.
- A smartphone to test their apps, either iPhone or Android

# Web Development

From consumer of content to empowered creator



## Replit 13-16 yrs old

1 Camp Available

\$225/camp

5 days • Monday thru Friday • 90 mins per day

From businesses, to news, to entertainment - websites are how we interact and transact. Our web development camp gives young communicators the inspiration to build their online presence using a Replit – a powerful platform to code online. And as they enjoy creative expression and develop a big picture view, they also effortlessly learn the essential elements of web building, visual layout, content and troubleshooting.

**Best suited for:** Junior hobbyists, artists, sportspersons, or musicians can proudly build a website to share their achievements with friends and family.

### Skills Developed



## Web Development

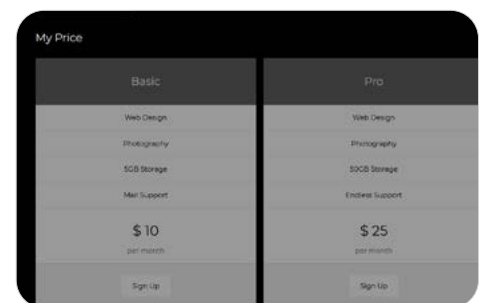
- A key transferable skill that allows developers to harness their imagination, gather information, and then visualise, plan and execute.
- Develop essential tools that are a must for team projects for budding entrepreneurs, hobbyists and academicians. Convey information like a pro, learn what is relevant to your audience, and troubleshoot and maintain an ongoing live project.

### Core Learning

- Become a valuable addition to any project team with the ability to conceptualise a website that reaches your target audience.
  - Learn to research, communicate with, and engage others as you plan and design your website.
- Understand the key elements of web design including layouts, menus and visual elements and more using both HTML and CSS.
  - Experience empathy and gain an understanding of user experience in the real world.

**Prerequisites:** This is a beginner level camp with no experience necessary.

### Sneak Peek



Students will create a website using HTML, CSS and Wordpress

## System Requirements

A laptop or tablet with connected keyboard and mouse, webcam, and a good Wi-Fi connection.

## Image Editing

A great tool in a teenager's arsenal



## Pixlr 13-16 yrs old

1 Camp Available

\$225/camp

5 days • Monday thru Friday • 90 mins per day

With a wide range of real-world uses that range from school projects to leisure time, image editing sets teenagers up for success in graphic design, communications, and creative expression. Pixlr is a powerful online image editing platform, with the ability to infuse layering and special effects.

**Best suited for:** Junior entrepreneurs, campaigners, avid photographers and hobbyists will benefit from this immersion in image editing.

### Skills Developed

Creative  
Expression

UX  
Design

Communication

## Image Editing

- A picture is worth a thousand words. With image editing, bring a universe of fascinating tools to your laptop that help an audience deeply appreciate your messages and information.
  - Derive hours of enjoyment from creating digital masterpieces.

### Core Learning

- Enjoyment and creativity from the ability to design and edit images to suit various requirements
  - Add a professional touch to schoolwork, flyers, posters, letters and more
  - Become a confident and creative communicator

**Prerequisites:** This is a beginner level camp with no experience necessary.

### Sneak Peek



Students will learn to use several popular effects and finishes to edit images and create a poster from scratch.

## System Requirements

A laptop or tablet with connected keyboard and mouse, webcam, and a good Wi-Fi connection.

## Computer Skills for School

Make schoolwork  
a breeze



## Google 13-16 yrs old

1 Camp Available

\$225/camp

5 days • Monday thru Friday • 90 mins per day

With our Computer Skills week, campers will dedicate time and attention to laying the right foundation for digital literacy and citizenship. They will gain essential skills to help navigate the online world safely. They will also experience working on the Google Workspace suite and learn how to create and manage vital information via slides, documents and spreadsheets.

**Best suited for:** Everyone who accesses a computer for an array of tasks! We prefer that our campers learn these vital skills through choice rather than chance.

### Skills Developed

Productivity

Academic  
Confidence

Communication

## Computer Skills for School

- In this camp, our students lay the right foundation for a lifetime of responsible digital usage
- They will learn to manage schoolwork, extra-curricular projects and more with confidence and minimise errors, lost work and time wasted

### Core Learning

- Use Google Slides to create impactful presentations using different layouts, media, and diagrams.
- Get exposure to Google Sheets for valuable spreadsheet knowledge and learn how to analyse data and perform calculations
  - Learn how to use Google Docs to write essays, reports and more.
- Build an understanding of how to use their Mac or PC effectively - from managing their downloads and information, to browsing safely online.

**Prerequisites:** This is a beginner level camp with no experience necessary.

### Sneak Peek

SIMPLE TASK TRACKER						
TASKS	PRIORITY	START DATE	DUPLICATE	EST. HOURS	% COMPLETED	NOTES
wk 1	●	2019/10/14	2019/10/26	5	50%	
wk 2	●	2019/10/14	2019/10/24	8	100%	
wk 3	●	2019/10/14	2019/10/26	3	30%	
wk 4	●	2019/10/14	2019/10/22	7		
wk 5	○	2019/10/14	2019/10/22	8		



Daily Work List	
Date:	
Urgent work	
Non urgent	

Students get hand-on experience creating a presentation, spreadsheet, and document with a focus on the common features that would help them with schoolwork and projects.

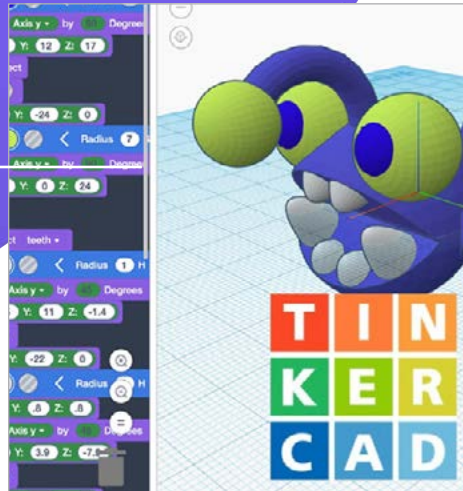
### System Requirements

A laptop with connected keyboard and mouse, webcam, and a good Wi-Fi connection. Students should also have an email ID - preferably Gmail.



## 3D Printing

Visualise, plan & create in 3D



## Tinkercad 13-16 yrs old

1 Camp Available

\$225/camp

5 days • Monday thru Friday • 90 mins per day

3D printing is one of the most important toolkits of the future, with applications across industries like medical, transport, education, construction and more.

Tinkercad is an online 3D modelling platform loved by both students and businesses. It allows users to design in 3D using a drag and drop interface to visualise how parts of a 3D object fit together to form a whole.

**Best suited for:** Engineering-minded maker, the artistic teen and Lego enthusiasts

### Skills Developed

Spatial Thinking

Design Thinking

Creative Expression

## 3D Printing

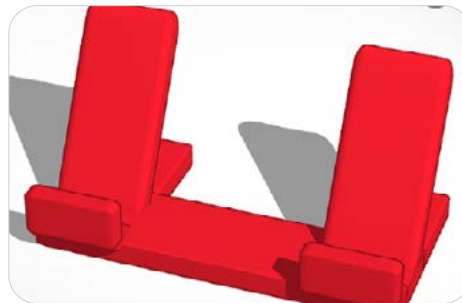
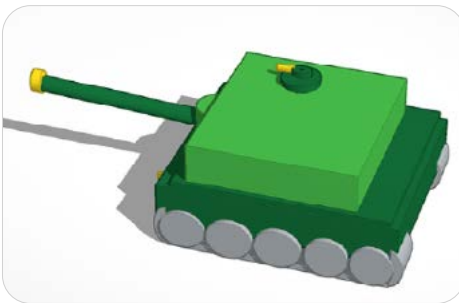
- As the world becomes increasingly virtual, our learners understand how objects on the computer screen have real-world applications.
- Our students design their very own 3D models and learn how to manipulate and transform shapes on screen. If their design permits, we 3D print a student's project and send it to them as a keepsake!

### Core Learning

- Develop competencies in engineering, mathematics and applied sciences
- Logic and creative thinking on the journey from concept development to creation
- Acquire a hands-on non-academic understanding of geometry concepts, spatial learning and perspective

**Prerequisites:** This camp is suitable for all students.

### Sneak Peek



Projects include creating 3D models of a mobile phone stand, drone, and the Eiffel Tower!

## System Requirements

A laptop or tablet with connected keyboard and mouse, webcam, and a good Wi-Fi connection.

## Augmented & Virtual Reality

The storytelling toolkit of the future



## CoSpaces 13-16 yrs old

1 Camp Available

\$225/camp

5 days • Monday thru Friday • 90 mins per day

Augmented Reality and Virtual Reality are powerful tools with applications both in education and beyond. Empower your child to dream with a multimedia immersion!

CoSpaces Edu is a virtual reality platform created especially for education that allows students to design, code and interact with their own AR & VR creations

**Best suited for:** The storyteller with the wildest imagination, these tools can take their narratives to the next level!

### Skills Developed

Creative Expression

Spatial Thinking

Logical Reasoning

Curiosity

## Augmented & Virtual Reality

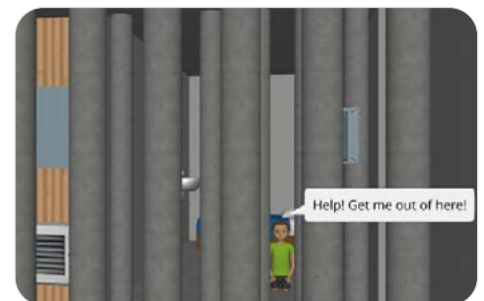
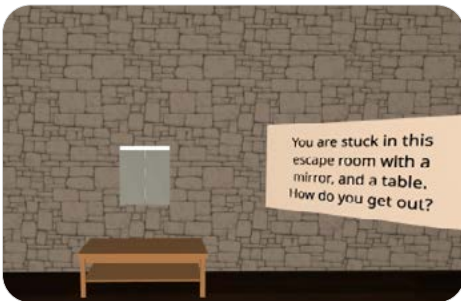
In their AR & VR week, our campers will create characters, insert them into a 360-degree virtual environment and use code that will make both come alive. They will animate their characters and develop interactive scenes that will provide hours of fruitful entertainment and creativity.

### Core Learning

- Fun exploration of 3D environments that builds STEM skills with a variety of projects, for example, an anti-gravity room.
  - Students apply their creativity and imagination to build a virtual environment using their own ideas.
  - Deepen their understanding of coding concepts by introducing events, variables and more in a VR world

**Prerequisites:** Students should have ideally completed an introductory block coding course as a prerequisite.

### Sneak Peek



Projects include an anti-gravity room, escape room, and a 3D environment that our students conceptualise, code and design from scratch!

## System Requirements

A laptop or tablet with connected keyboard and mouse, webcam, and a good Wi-Fi connection.

## Micro:bit

Become a  
digital creator



## MakeCode 13-16 yrs old

1 Camp Available

\$270/camp (includes a Micro:bit set)

5 days • Monday thru Friday • 90 mins per day

BBC's Microbit is a tiny but powerful tool that gives its users a bird's eye view of how hardware and software interact. MakeCode - a platform by Microsoft - is designed to evoke a sense of wonder, curiosity and excitement, as they awaken to their ability to visualise and execute projects with immediate results.

**Who should learn Microbit?** The avid tinkerer and crafter will derive hours of enjoyment for Microbit and its limitless possibilities.

### Skills Developed

Design  
Thinking

Problem  
Solving

Logical  
Reasoning

Curiosity

## Micro:bit

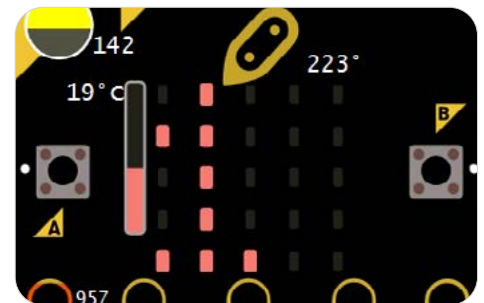
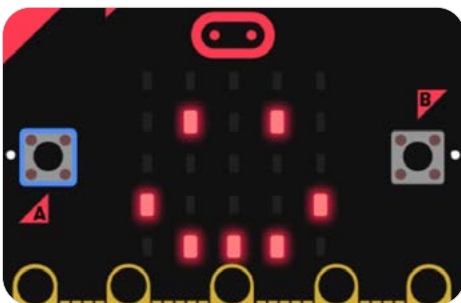
Watch as your teenager's coding efforts literally come to life to control the behaviour of the Micro:bit. Campers will learn how to use the various sensors contained in the Micro:bit, namely, accelerometer, light, touch and temperature to create super cool projects that introduce them to the world of robotics.

### Core Learning

- A bridge between programming and real-life hardware helps build powerful logic in real time
- Hours of fun and tinkering with projects like a step counter and even a simple version of the Flappy Bird game.
- Students can continue using their Micro:bit set for endless possibilities of cool projects and possible extensions.

**Prerequisites:** This camp is suitable for all students.

### Sneak Peek



Projects include a step counter, intruder alarm and a Flappy Bird game.

## System Requirements

A laptop with connected keyboard and mouse, webcam, and a good Wi-Fi connection.  
A BBC Micro:bit kit that we will mail to you, please allow 3 days for shipping. (Cost included in camp fees)

So what are you waiting for...

**Enroll now!**

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**For complete details**



 **AlphaGen**  
Learning

Reach out to us

Call or message us at

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[alphagenlearning.com](http://alphagenlearning.com)