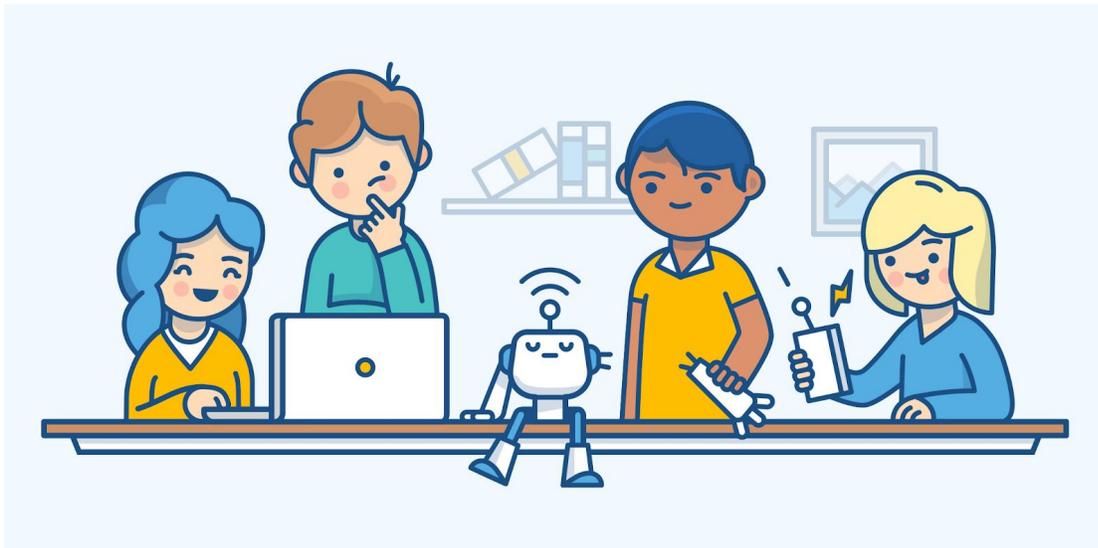# Coding Camp

Intro to Computers :

We will cover the basics on how does a computer works, Overwhelming terminology made really fun (They all have exercises inside them for more interaction). How to think like a programmer.

Algorithms
Intro to algorithms and how important they are.
Tool: Code.org

Data Structures
Trees, Lists, Stacks and Queues.

Product Development
Design, build and present a product.

Creating a personal website :

Using HTML , CSS kids will learn on how to create a basic website about themselves. This will achieved using a really visual approach. This skill in turn in the future help promote who they are and vision they believe in. This will give a fundamental understanding of the how the internet works. Their final works will be deployed on the company server so that their parents can view their work anytime they want.

Design your portfolio (Basics):

The students will be introduced to basic web technologies like HTML and CSS required for web design. The interactive session involves students to learn these technologies and tools by designing their personal websites which they will be showcasing at the end of the week.

By the end of the week the students will,
- Know different web technologies like HTML and CSS
- Know how to setup the development environment and tools
- Know common HTML tags
- Know basic CSS styling
- Have a complete personal website

Making a game using a game engine :

Using a game engine kids will make their own games. The focus will be towards creating games for educational purposes.

**We will focus on creating a simple car racing game.**
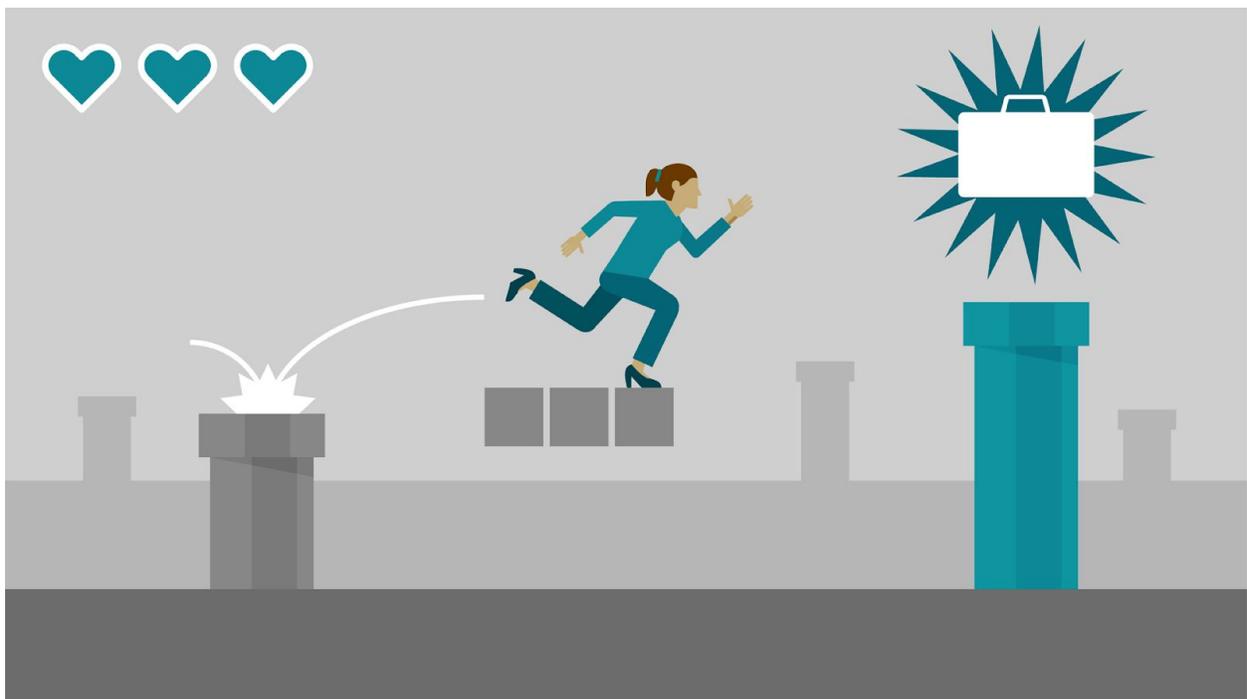
1. Basics of game design.
2. Understanding how to learn more via gamification.
3. Creativity to add additional features.

Using IOT:

This buzzword simply connecting things via the internet. It is widely today. Tesla car's know to use IOT for auto-updates , Control of car via mobile. GM even use to IOT to track your car when someone has stolen it(This means they can even stop the car if needed). IOT is gaining a lot of attention to be used in tracking carbon emission and providing scientist solutions to implement more on a local level.
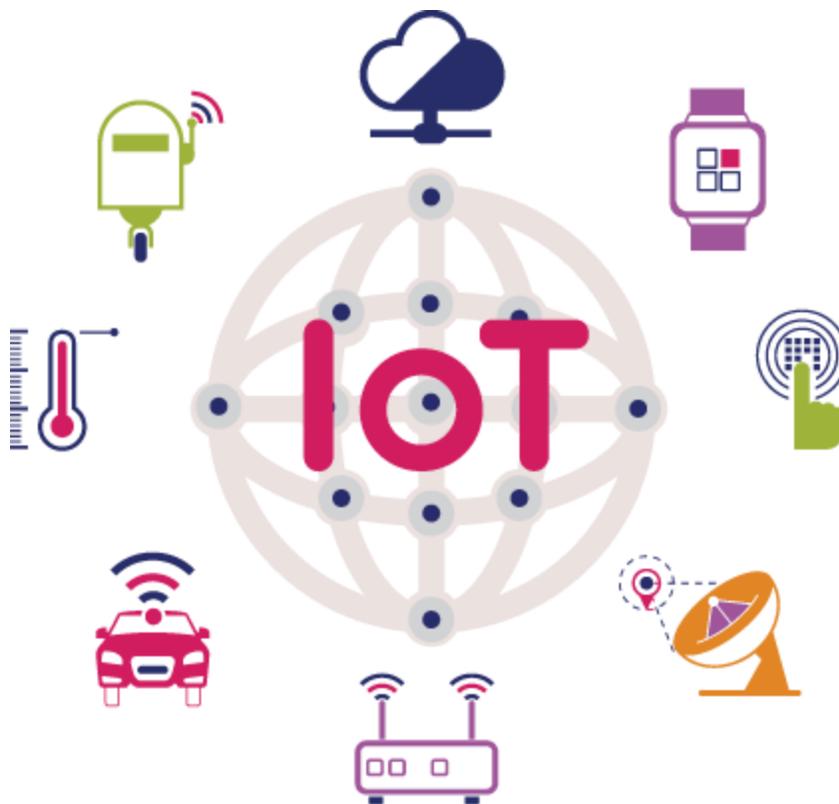
The kids will use very popular mini computer called Raspberry pi (Known as a microprocessor). This computer can found in smart houses or in smart city grids.

Aspects students will learn :

1. Setting up a mini computer.
2. Creating their own street light system.
3. Understanding how remote connections work.