

## Yo Code!

### Description

Yo Code! is a course series designed to teach elementary and middle school students the basic principles of computer coding. Yo code classes utilize programming languages such as HTML/HTML5, CSS/CSS3, JavaScript and JQuery using coding platforms such as Notepad++, Codepen, Textwrangler, Aptana Studio 3 and w3schools for 6-8 graders. Fourth and fifth graders will use MIT Scratch drop and drag programming for math lessons, then continue to build on this skill set. Our pilot workshop and program at Marrington Middle this past school year has been a great success quantitated by improved metric testing.

The process of designing and programming teaches young people to think creatively, reason systematically, and work collaboratively— essential skills for life in the 21st century. They also hone math skills in addition, subtraction, multiplication and geometry, and concepts such as positive and negative integers, plotting coordinates, parallels and variables.

The course utilizes lectures, videos and worksheets to develop understanding and build on themes. The curriculum is broken into phases for planning, design, development, testing and debugging (fixing) gaming projects of increasing complexity. Writing is a strong component in each lesson. Throughout the course, students maintain design notebooks in which they consider programming questions, maintain storyboards and develop game plot/characters.

### Yo Art's Coding Program

#### Yo! Let's Code!

### Semester 1

#### Objectives

- Help the Students understand the basics of coding.
- Introduce them to HTML 5 and CSS 3 coding languages
- Show them how the internet works and how to implement code.
- Have the students create a working basic website
- Have FUN while learning!

#### Supplies

- Computers capable of running an internet browser and notepad ++
- Pencil and Paper
- 1 USB flash drive per student

A stable and usable internet connection

A smart board with a stable connection to a computer

## Key Vocabulary

These words will be used and learned throughout the course

WWW or World Wide Web - Group of internet servers linking computers around the world.

Domain Name -An unique name that identifies one or more IP addresses. Domain names are used in URLs' to identify particular Web sites. Every web site is located by its unique IP address.

Html 5- HTML is a basic markup language derived from the Standardized General Markup Language (SGML), providing the means for creating simple hypertext documents, intended for publishing on the World Wide Web.

CSS 3- A simple mechanism for adding style (e.g. fonts, colors, spacing) to Web documents. Not all browsers (of specific versions) implement the full specification of CSS.

Pixel- Refers to how monitors divide the display screen into thousands or millions of individual dots to display an image. A pixel is one dot.

URL - Each separate page accessible on the Web has a unique address which can be identified by its URL. The first part of the address (eg; http or ftp etc) indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located.

Social Media- Web sites that are driven by interactive, user generated content. Examples include: Flickr, Wikipedia, Facebook, and Twitter

## Introduction - Day 1 What is the Internet?

A brief lecture on what the internet is. How it came about, and where it might be going. Short Video will be shown to give the kids a basic understanding on what the course is about. Ice breaker game will be played to give the instructor and the kids a fun activity to remember each other's names.

## Let's Code- Day 2

Students will begin to code with their computers. A very basic text based website will be created during the class. This will allow the students to get hands-on very early in the course and really get them excited. They will actually make their first "website" this day

But how does it look?- Day 3

Students will continue building their websites. Now the focus will shift from structure to design. Using CSS 3 the students will begin adding color and other fun attributes to their website

Pixels and Jpeg's- Day 4

Students will begin to add pictures to their websites. Formatting and editing will be covered in this class

What's in a name?- Day 5

Students will begin to up with a domain name for their website. They will also learn how to actually secure and their own ".com" on this day

Its Called the "WEB" for a reason- Day 6

Students will learn how to use hyperlinks and begin inserting links into their websites

To post or not to post- Day 7

Students will learn the ins and outs of social media promotion. They will also be given a brief lecture on cyber bullying and how to behave on the internet

Safety First- Day 8

Students will be shown tips and tricks on how to keep their website secure and how to avoid virus. Also how they can maintain their privacy online

Finishing touches- Day 9

Students will be allowed to add more content and make any changes to their website

Show us what you got - Day 10

Students will begin to present their work to the class and explain what they have learned

Show us what you got Part 2- Day 11

Finishing up presentations of their websites

The Extra Day- Day 12

Just in case there is a missed day or more time needed for presentations. A small graduation will held. They are now Yo Coders!