Beginner and Intermediate Scratch Class

Goal/Overview:

This course is split into two portions: one for beginner students and one for intermediate students. The goal of the beginner course is to give complete beginners a thorough understanding of how computer programming works through Scratch. Participants will learn topics such as conditions, loops, variables and much more. This course is designed to provide students with the skills necessary to develop an animation project. Intermediate students will be given an opportunity to create their own projects and expand their knowledge of scratch.

Logistics:

Each class will be in the duration of 1hr and conducted on Zoom. Each lesson will begin with a 10-15 min recap of the previous class. Our instructors will usually present a powerpoint and give a 20-30min lecture. The remaining class time will be dedicated to analyzing solutions to problems or the instructor will do some live problem solving.

Resources:

Instructor Email:
scratch@codingpals.org

If there are any concerns or questions please feel free to reach out to our class email. We will try to answer all inquiries within 24 hours

Beginner Class Outline/Schedule

Class 1: Introduction to Scratch
- What is Scratch?
- Understanding the thought process of Scratch programming
- Basic Movements
- Turning while moving

Class 2: Motion and Sound
- Movements using Basic Conditions(If on Edge)
- Uploading Sounds

Class 3: Sprites + Looks
- Changing and uploading different Sprites
- Changing and uploading different Background
- How to use different sprites and backgrounds in code.
- Use basic condition-Green Flag
- Constructing basic lines of code using this.

Class 4: Events and Conditions
- Using If and Edge Bounce.
- Learning how to use the 'When___ key pressed' command in the code.
- If time permits, creating a mini-project with everything learnt so far.

Class 5: Looping
- Learning how to use 'Controls'
- Starting with the 'Forever' loop.
- Continue working on Loops by learning how to integrate and use 'Repeat'

Class 6: Modifying and Review
- Strengthen looping skills.
- Do a short review of everything covered so far in the course.
- Start creating mini-projects, which display skills taught till this point in the course

Class 7: Conditions
- We have already learnt some basic conditions(If on Edge; Green Flag; When ___Key Pressed).
    - Do a short review on these conditions.
- We will learn conditions related to senses.

- If and Then is one of the most common conditional statements used, and we will learn how to use it with specific conditions.
- We will work with the commands in the 'Sensin' column and begin with 'Touching___'
- This is extremely important, so we will spend the remainder of this lesson solidifying this topic

Class 8: Variables
- We will learn how to create Variables.
- Learn how to integrate Variables into code.
- Solving short problems relating to Variables.
- If time permits, we will start with Variables Operators.

Class 9: Variables Pt. 2
- Once learning how to create variables is solidified, we will start with Operators.
- We will learn how to Add and Subtract values to their Variables.
    - Students can choose what they would use in their final projects.
- We will learn how to use 'If and then' and Sensing with Variables.
    - We will learn how to add or deduct values every time an event occurs.

Class 10: Working on Final Projects!
- Final review of everything learnt in all ten lessons.
- Working on the Final Projects.
- Conduct One on one with instructor

Class 11:
- Working on Final Projects
- Finishing touches.
- If time permits, share final projects

Please check back later for the intermediate class outline