Lesson Objective(s)

Students will be able to decompose a given Scratch program in order to evaluate each line of code individually.

Students will be able to recognize at least three patterns in a given Scratch program and defend their reasoning for why they are patterns.

Vocabulary/ Academic Language (Language Function)

Decompose - Break down or cause to break down into component elements

Pattern - A recurring design

Computational Thinking - A set of problem-solving methods that involve expressing problems and their solutions in ways that a computer could execute

Coding - The process of assigning a code to something for the purposes of classification or identification

Assessment/Evaluation

Students will complete a given worksheet that evaluates a Scratch program which will be turned in for grading.

Adaptations to Meet Individual Needs

- 1. Students with IEPs will be given the appropriate modifications to ensure they get the most out of the lesson.
- 2. Students who are ELL may be given worksheets or programs translated into their native language to ensure they get the most out of the lesson.

Management/Safety Issues

Students should always be monitored while on the internet to ensure they are using the time and resources appropriately.

Instruction

Set/Motivator: Students will watch the Scratch program run through once or twice to get them engaged in the lesson.

Instructional Procedures/Learning Tasks:

- 1. Students will watch the Scratch program run through completely.
- 2. Students will pull the scratch programs up on their own computers.
- 3. Students will complete a given worksheet which requires them to analyze the Scratch program.
 - a. Computational Thinking: Scratch Program
- 4. Students will turn in the worksheet for grading.

Questions and/or activities for higher order thinking:

- 1. How can it be helpful to decompose a problem?
- 2. Are there time when decomposing a problem is not helpful?
- 3. Why are patterns important?

Closure: Once the worksheets are collected, the class will go over some possible answers.

Material/Resources:

- 1. Scratch
- 2. Classroom set of computers
- 3. Worksheet