

TECHNOLOGY-10

ESSENTIAL UNIT 4 (E04)

(Practical Programming)

(July 2017)

Unit Statement: The student will have the opportunity to think creatively, reason systematically, and work collaboratively through the medium of simple programming. Through the use of Scratch, the student will learn how to create their own interactive stories, games, and animations. Additionally, the student will be able to share their creations with the digital community, modify the creations of others, and participate in an online collaborative learning setting.

Essential Outcomes: (must be assessed for mastery)

1. The Student Will demonstrate the ability to utilize old concepts in different ways, and to integrate new techniques into what they already know.
2. TSW animate characters within a program to achieve a purpose.
3. TSW create a program that responds to user input.
4. TSW utilize sound within a program.
5. TSW use variables within a program.

Introduced and Practiced Outcomes:

1. The Student Will share their program to the Scratch community.
2. TSW modify a program created by another community user.

Suggested Websites and activities:

Destiny Webpath Express (found on QSI schools Library site) use this search engine to find age-appropriate websites that align with this unit.

<https://scratch.mit.edu/go> - A page of tutorials and lessons, including teacher and student guidelines for achieving various tasks, including those outlined in the essential outcomes.

[Creative Computing Lesson Guides](#) - A 154 page document containing lessons, guides, instructions, and tutorials on Scratch.

[Scratch Offline Editor](#) - An downloadable version of Scratch - useful if your internet is unreliable.

[Scratch](#) - Scratch's home website.

[Scratch Video Tutorials](#) - Helpful tutorials on various aspects of Scratch.

[ScratchEd](#) - An online community for educators using Scratch.

ASSESSMENT RUBRIC FOUND ON FOLLOWING PAGE.....

Assessment Rubric – E04 –Practical Programming

Student Name: _____ **Date:** _____

To receive a ‘B’ the student must show ‘B’ level mastery on ALL Essential Outcomes. (TSW’s)

To receive an ‘A’, the student must show ‘A’ level mastery on 3 of 4 available and ‘B’ level mastery on all remaining TSW’s.

TSW	‘A’ Level Mastery	‘B’ Level Mastery	‘P’ Comments
1. The Student Will demonstrate the ability to utilize old concepts in different ways, and to integrate new techniques into what they already know.	The student can explain how they have utilized old concepts in different ways, and to integrate new techniques into what they already know.	The student demonstrates the ability to utilize old concepts in different ways, and to integrate new techniques into what they already know.	
2. TSW animate characters within a program to achieve a purpose.	The student can animate multiple characters to achieve a single purpose.	The student can animate a character to achieve a purpose.	
3. TSW create a program that responds to user input.	The student can create a program that responds to multiple sources of user input.	The student can create a program that responds to a single source of user input.	
4. TSW utilize sound within a program.		The student can use sound within a program.	
5. TSW use variables within a program.	The student is able to utilize multiple variables within a program.	The student is able to utilize a single variable within a program.	