Video Links: [9th-12th Coding in the Algebra Classroom]
Lesson Objective: State the rate of change in context; State the ration between distance and time
Compass Component and Rating: 3d:Using Assessment in Instruction, *Effective Proficient*

Common Core State Standard(s)
CCSS.MATH.CONTENT.HSA.CED.A.2 Create equations in two or more variables to represent relationships between quantities; Graph equations on coordinate axes with labels and scales. **CCSS.MATH.CONTENT.HSF.IF.B.4** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. **CCSS.MATH.CONTENT.HSF.IF.C.7** Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. * **CCSS.MATH.CONTENT.HSF.IF.C.7.A** Graph linear and quadratic functions and show intercepts, maxima, and minima **MP.2** Reason abstractly and quantitatively **MP.4** Model with mathematics.

Compass Component 3d: Using Assessment in Instruction(Rating:		
Indicators	**Evidence**	**Common Core Connection**
The teacher elicits evidence of student understanding during the lesson.	• The teacher uses questions, prompts, and assessments to diagnose evidence of learning.(2:44)	**CCSS.MATH.CONTENT.HSA.CED.A.2** Create equations in two or more variables to represent relationships between quantities; Graph equations on coordinate axes with labels and scales. **CCSS.MATH.CONTENT.HSF.IF.B.4** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities,
Students are invited to assess their own work and make improvements.	• Students assess their work by matching their equation to the animation. (2:53)	
Feedback includes specific and timely guidance for at least some groups of students.	• The teacher provides feedback to students on their equations, graphs, and animations. (3:55)	

		and sketch graphs showing key features given a verbal description of the relationship. **CCSS.MATH.CONTENT.HSF.IF.C.7** Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. * **CCSS.MATH.CONTENT.HSF.IF.C.7.A** Graph linear and quadratic functions and show intercepts, maxima, and minima
Students indicate that they clearly understand the characteristics of high-quality work.	• Students indicate that they clearly understand the characteristics of high-quality work. They monitor their understanding by creating multiple representations such as equations, graphs, and, tables, then applying that information into coding.(2:35)	
The teacher attempts to engage students in self or peer-assessment.	• The students build their own game, share it with their peers, and discuss how they can improve their code. (7:40)	
When necessary, the teacher makes adjustments to the lesson to enhance understanding by groups of students.	• The teacher adjusts Desmos activity to have students to create a rocket that isn't going at a constant rate of change. (6:13)	

WHAT COULD THIS TEACHER DO TO IMPROVE?

What did the teacher do in this lesson?	***Effective Proficient* Indicators**	**What could the teacher do to move to *Highly Effective*? (example actions)**
During the activity, students were asked two questions. The first question asked students to identify the rate of change from a table, graph, or from a scenario that was presented as a paragraph.	• Questions/ prompts/ assessments are used to diagnose evidence of learning.	The students would be apart of creating the evaluation criteria by constructing a table and graph of their newly created rocket ship for the teacher to assess.