**1Name:** Stephannia Kabanakis

**Course: AP CSP**

**Topic:** string

**Date:**

**Essential/Key Question**

How can we use string within programming?

**Performance Objective or Goals:**

9-12.CT.10 Collaboratively design and develop a program or computational artifact for a specific audience and create documentation outlining implementation features to inform collaborators and users.

9-12.DL.5 Transfer knowledge of technology in order to use new and emerging technologies on multiple platforms.

**Students will be able to:**

* Concatenate in both python and hatch
* Create a substring program

**Academic Vocabulary or Language:**

* String
* Concatenation
* Substring
* Index
* slicing

**Instructional Materials:**

* PowerPoint
* 7 phrases cut into sections

**Anticipatory set/ Do Now (Motivation):**

* As student walk in hand them a piece of a phrase. There will be 6 or 7 different phrases. Students will share their phrases as I write them on the board. Then student will have to try and guess the 7 different phrases

**Instructional Procedures- Process to acquire new information- learning sequence:**

* If students are having difficulties figuring out the phrases, tell them to pause and write down which ones they think they got.
  + They will be revealed prior to the start of their program.
* Introduce the phrase I love ice cream!
* Explain how you can call a specific character from the phrase in python
* Go over slicing in python
* Prior to moving on, give students a few minutes to test this out in python using the phrases on the board.
  + Have them slice the phrase they received when they walked in
* Then we can introduce concatenation
* Have them create different strings of another phrase broken into the slices they received when entering the room
* Have them try to create a concatenation in python with that phrase
* Once they have applied the concatenation, if time permits, we can introduce substring

**Support and Scaffolding:**

* Breaking down the process step by step
* Showing examples
* Providing note packets

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**Assessment-closure-evidence of learning:**

On the way out, hand each student a sticky note and have they write down what stuck with them from todays lesson for blue, and for red have them write down what they are still stuck on