#### Collaborative Discussion Framework (Lash & Park, 2015)

### What are you trying to do?

» Do they have or understand the purpose?

### What have you tried already?

» Restate in steps what they have already done.

### What else do you think you can try?

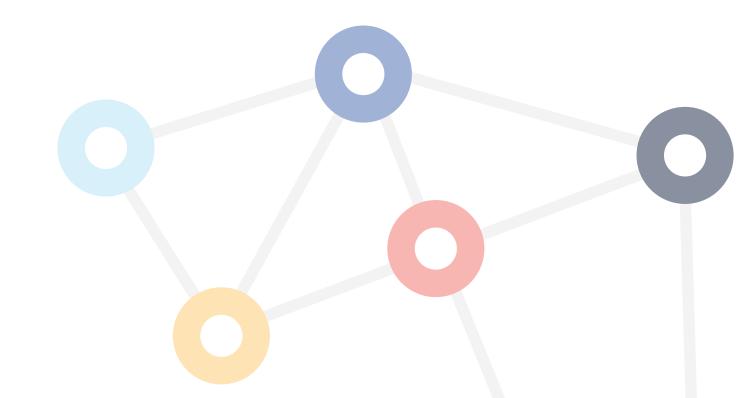
» Brainstorm, encourage students to take a chance.

# What would happen if....?

» Come up with some possible solutions and hypothesize the outcomes. Test each hypothesis.

# Celebrate & share!

- » Take charge of celebrating one's excitement.
  - » Self recognition / realization (solution / different idea)
  - » Recognition for other's help? idea? solution? Take 3



#### Collaborative Discussion Framework (Teacher support document)

The Collaborative Framework is a direct application of **SMP3** "Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments."

» What are you trying to do?

(Do they have or understand the purpose?)

- 1. What is/was your plan for solving this problem? (GMP 1.2)
- » What have you tried already?

(Restate in steps what they have already done)

- 1. What did you start with? (SMP1&6)
- 2. Why did you choose that sequence, algorithm, algorithm, block, operation etc.? (SMP6, GMP6.1)
- 3. Does that make sense? (SMP1)
- 4. Can you explain this part to me? (SMP1)
- What else do you think you can try? (GMP1.3 Try Different Approaches When Your Problem is Hard)
  (Brainstorm, encourage students to take a chance.)

This is really about helping the student to decompose the problem, simplify, identify parts that do and don't work. ""How might you solve a simpler task to help you with this problem?"

- 1. How is this like another problem you have solved? (SMP1)
- 2. Can you use your previous solution to help you solve this one? (SMP1)
- 3. Is there a part that works? (SMP1) (GMP3.1)
- 4. Where does the script stop working? (SMP1)
- 5. Do you see any patterns that may help you? (SMP7)
- 6. What would happen if you continued the pattern? (SMP7)
- » What would happen if…?

(Come up with some possible solutions and hypothesize the outcomes. Test each hypothesis).

» Celebrate & share!

(Take charge of celebrating one's excitement)

- » Self recognition / realization (solution / different idea)
- » Recognition for other's help? idea? solution? Take 3