

Collaborative Discussion

Framework

The Collaborative Framework is direct application of **SMP1** "Make Sense of Problems and Persevere in Problem Solving" and **SMP3** "Students at all grades can listen to 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 information is given/do you have? (**SMP1**)
2. What information are you missing? (**SMP1**)
3. 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 and why.)

1. Say the steps to the algorithm out loud. Draw it on paper. (**SMP2**)
2. What did you start with?(**SMP1&6**)

3. Why did you choose that sequence, algorithm, algorithm, block, operation etc.?(**SMP6, GMP6.1**)
4. Does that make sense? (**SMP1**)
5. 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). (SMP3)

1. Is this the most efficient/simple solution? (SMP6)

- 2.

- **Celebrate & share!**

(Take charge of celebrating one's excitement)

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