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Activity Title: “My Favorite No” Debugging Math Talk **Subject**: Math **Grade**: 1	**Duration**: 30 minutes
Learning Objectives: The student will be able to... • Identify and fix errors in a math problem. • Develop a growth mindset by normalizing and valuing mistakes as a helpful part of the learning process. • Apply logic to break the code • Make educated guesses based on prior info • Make sense of problems and persevere in solving them. • Look for and make use of structure.	**End product**: The student will create... • A solution to the warm up math problem • A solution to the secret code • Improved guesses as they move through the game

Desired Results

Standards Alignment: • **K-1.CT.9** Identify and fix (debug) errors within a simple algorithm. • **K-1.CT.10** Collaboratively create a plan that outlines the steps needed to complete a task.	**Vocabulary**: • Algorithm • Debug • Mistake or error	**Resources** (provide URL to slides, videos, etc.s): • Index cards / paper / pencil • Math Problem • Break the Code | Math Playground • Debugging • Copy of My Favorite No...

Summary/Timeline of Activity: *(Be sure to include teacher actions and student actions during each part of the lesson)*

- Teacher presents warm up math problem on SMARTBoard / board etc.
- Teacher reads the math problem to students. Teacher reads problem 3X: once for the eyes, second for the ears, third for the brain
- Teacher provides students with index cards / half sheet of paper to answer math problem (time given for students to “do the math”)
- Students write answer to math problem on the index card / paper
- Teacher gathers the index card / student responses.
- Teacher reviews the student responses and selects “a favorite no.”
- Teacher rewrites student work on white board / SMARTBoard / or shows work using document camera.
- Teacher asks students to become “math detectives” and examine the math work completed. Teacher asks students to share all the “positive math” that they see.
- Teacher writes all responses of the positive math that the “favorite no” shows.
- Teacher and students have a discussion of all positive math noted.
- Teacher then asks students to put on their detective caps and analyze the mistake: “Now what is incorrect?” “Where is the mistake?”
- Students share what they notice... teacher writes students responses.
- Class discussion about positive math used to solve math problem compared to the error

made... “Growth Mindset. - Power of Yet”

Assessment Evidence	
Formative Assessment: https://www.mathcoachscorner.com/2013/08/powerful-formative-assessment-routine/	**Extensions**: ● Students work in a group to write down a step by step process of how they solved a problem