

January 2019 Muir Lesson Study **News 2nd Edition**



Fourth graders are studying fractions this month

Our third grade team has been deep in discussions around what it means to make student thinking visible through their use of board work and student math notebooks. Through our cross site collaboration with Hillcrest Elementary, they recently taught a Teaching Through Problem Solving unit on elapsed time, and now are trying out a unit based a Japan Math Multiplication Unit. Even Ms. Nokes, our librarian and a member of their lesson study team has taken back some of the teams' strategies to make student thinking visible in problem solving lessons in the library!

Norms for Classroom Discussion in Mr. Steve's second grade class!

Check out our third graders math notebooks, student- led board work and some problem solving in the library. Can you notice different ways this team is making their students thinking visible in their classrooms?

The third grade team make student thinking visible through board work and student lead discussions of TTP lesson









Making student thinking visible in the library: 5th grade expert lists of origami! Create an example, determine the level of difficulty and decide what grade levels at Muir would be suited to make your origami figure!

Our 4/5 team created classroom discussion rights and obligations with their students. The team felt that while many students participated in the classroom discourse, they wanted all students to feel that they not only had the right to engage, but were also obligated to show their classmates the same amount of engagement through active speaking- or listening to understand. This team (along with our whole school) continue to grapple with and improve different ways to make student thinking visible throughout lessons. The team believes that the more visible the student thinking around the mathematics, the deeper the level of discourse students will be able to have.

Check out what the've been up to in their classrooms!

Room 411 BIGMTS You have the right to share (a) (a) (a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b	Room 411 OBLIGATIONS
Fig. 1 1/23/24 $ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}\\ \end{array}\\ \end{array}\\ \end{array} \\ \begin{array}{c} \end{array}\\ \end{array} \\ \begin{array}{c} \end{array}\\ \begin{array}{c} \end{array}\\ \end{array} \\ \begin{array}{c} \end{array}\\ \begin{array}{c} \end{array}\\ \end{array} \\ \begin{array}{c} \end{array}\\ \begin{array}{c} \end{array}\\ \begin{array}{c} \end{array}\\ \end{array} \\ \begin{array}{c} \end{array}\\ \begin{array}{c} \end{array}\\ \end{array} \\ \begin{array}{c} \end{array}\\ \begin{array}{c} \end{array}\\ \end{array} \\ \begin{array}{c} \end{array}$ \left) \begin{array}{c} \end{array}\\ \end{array} \\ \begin{array}{c} \end{array}\\ \end{array} \\ \begin{array}{c} \end{array} \left) \begin{array}{c} \end{array}\\ \end{array} \\ \begin{array}{c} \end{array} \left) \begin{array}{c} \end{array} \left) \begin{array}{c} \end{array} \left) \begin{array}{c} \end{array} \left) \end{array} \left) \end{array} \left) \end{array} \left) \begin{array}{c} \end{array} \left) $) $	Math Learnings 01/29/19 Reiyon-I learned how to play the game Leftovers. It was a good game with me and Joseph. He beat me but I dont care it was just a game and I'm excited to do division. Neveeh I liked doing leftovers because I get to play with pople I never play with pople I never play with be Stuck at bigger division but I will find a path. ddim avier. Today we did division and I learned a new game it was fun.
Today We got a class cha leagned what Shtigotec I was unsure about 5 but I got it they MY class Mates any	Fourth grader Adrian, shares with his teacher what he learned the day their class constructed

their class constructed their discussion rights and obligations.

"Today we got a class chart and I learned what obligation means. I was unsure about 5/12 and 6/8 but I got it together b/c my classmates game me ideas for strategies."

I thank you

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