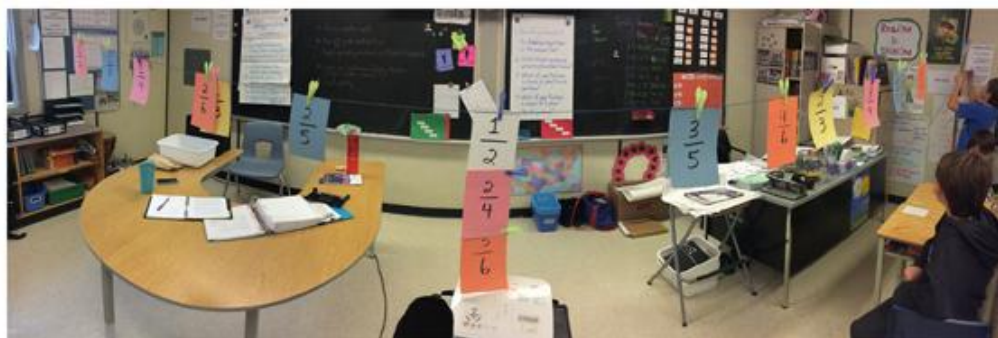


LIVING NUMBER LINE

UNIT A Use proportional reasoning to make reasonable estimates

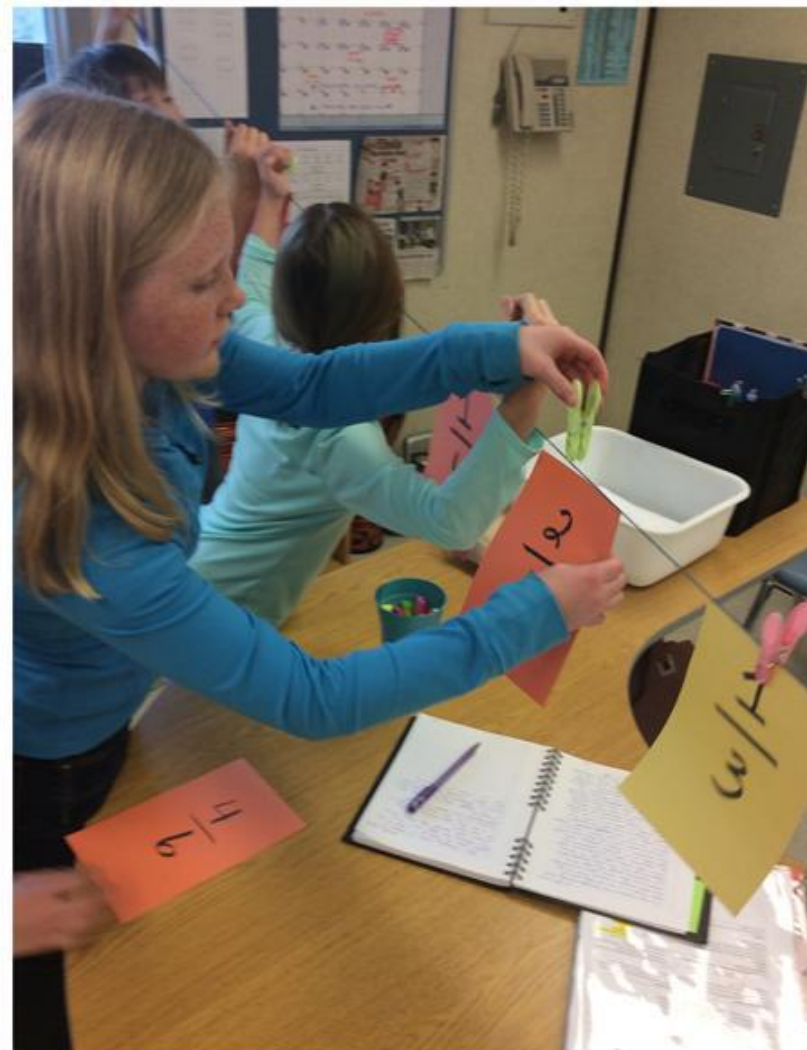
STUDENT THINKING



Sample 1 Notice how the number line extends across the classroom, allowing students to physically interact with it. Many students can be engaged at once, reasoning is easily made visual. The numbers can be easily moved, so students are able to revise their thinking and change the placement of fractions as needed.



Sample 2 This student is using his arms to estimate where the partitions for $\frac{1}{5}$ units belong on the number line. His gesturing communicates reasoning regarding proportional estimates.



Sample 3 Notice that different students can attend to different fractional units simultaneously. Students in the background are using gestures and visual/spatial strategies to place the $\frac{1}{4}$ units, as the student in the foreground reconsiders her placement of $\frac{2}{6}$. Students are able to move around, stand back, and consider if the number line is equipartitioned.