## Mathematics Family Letter Unit 1: Numbers and Operations in Base Ten

Dear Family,
Our class is starting a new unit in math about place value, whole number addition and subtraction, estimation, and rounding. During this unit we will:

| Benchmark/Goals | Examples |
| :---: | :---: |
| Use place value understanding to round numbers to the nearest 10 and 100 | Round 26 to the nearest 10. <br> Round 431 to the nearest 100 |
| Add using algorithms based on place value | There are many different strategies to solve this problem. Here are 2 examples: <br> Add: $434+249$ <br> Example 1: $\begin{aligned} & 400+200=600 \\ & 30+30=60 \\ & 4+9=13 \\ & 600+70+13=683 \end{aligned}$ <br> Example 2: |


| Benchmark/Goals | Examples |
| :---: | :---: |
| Subtract using algorithms based on place value and the relationship between addition and subtraction | There are many different strategies to solve this problem. Here are 2 examples: <br> Subtract: 342-129 <br> Example 2: <br> Example 1: $\begin{aligned} & 342-100=242 \\ & 242-20=222 \\ & 222-9=213 \end{aligned}$ $\begin{aligned} & 129+\square=342 \\ & 129+1=130 \\ & 130+70=200 \\ & 200+100=300 \\ & 300+42=342 \end{aligned}$ $1+70+100+42=213$ |
| Understands properties of addition | Commutative Property (Order Property): $3+5=5+3$ <br> Associative Property (Grouping Property): $(3+5)+8=3+(5+8)$ <br> Identity Property (Zero Property): $6+0=6$ |

As we work through this unit, students will have the opportunity to create picture models, use manipulatives, and write about their math reasoning. Please encourage your child to share a skill or strategy with you.

The following activities will support the skills and vocabulary we are focusing on during this unit. The emphasis is to build a strong foundation of math reasoning, critical thinking, and problem solving. Communication is an important part of building math understanding and students need to be able to express their ideas clearly.

Practicing Addition Facts Students need to review and practice the addition facts to $10+10$. Your child is likely to have learned many or all of the facts in Grade 2 , but he or she will benefit from reviewing them. Your child can use flash cards (either store bought or made at home) and sort the cards into "the ones I know" and "the ones I'm working on". The goal is for students to know and use these facts fluently. Students may choose a few facts that they are working on and think about strategies that will help them remember those facts. For example, one strategy a child might use is this: What is $6+7$ ? I know $6+6=12$, and $6+7$ is one more than that, so it's 13 . You can help with these facts by listening to your child's strategies or sharing ones that you use.

Making Sense of Large Numbers With your child, look for large numbers in the newspaper, on packages, on signs, and around your home and neighborhood. Talk about the numbers and the place value within them. For example: Looking at a package of 500 cups ask, "How many single cups, how many sets of 10, and how many hundreds?"

Throughout all of our units this year, our class will be building our knowledge about data. Students will draw scaled bar and picture graphs to represent a set of data and collect measurement data to represent on a line plot. Students will also answer one and two step questions about information presented in graphs.

Below are examples of some of the goals listed above.

| Benchmark/Goals | Examples |
| :---: | :---: |
| Draw a scaled bar graph. | Number of Books Read <br> How many more books did Taylor read than Sam? (10 books) <br> How many fewer books did Avery ready than Pat? (5 books) <br> How many more books did Sam and Taylor read than Pat and Avery? (25 books) |
| Draw a scaled picture graph. | FAVORITE COLORS OF ELEMENTARY SCHOOL STUDENTS <br> Each 虽 $=2$ people <br> How many more students like green than red? 8 students <br> How many fewer students liked blue than purple? 8 students <br> How more students liked purple or blue than red or green? (12 students) |



The activities below are related to the data standards that will be taught throughout this school year. You can use the activities to enrich your child's mathematical learning experience.

Explore a Topic Think of a question you want to answer about something in your house or your neighborhood. Collect data that will give you some information about your question. An example might be "How many times a day does our family use water during a one week period?" Together with your child, plan your data collection method. Make predictions about what you will find out. After you have collected your data, graph the data using a line plot graph, line graph, bar graph, or picture graph and take some time to look closely at it. Does anything surprise you about the data you have collected? Does the data communicate any useful or interesting information about water use in your family? Your child may want to create some sort of representation of the data. Make comparison statements about your data. Other questions you might explore include "How much television do we watch?" or "Do cars stop at the stop sign at the end of our block?"

Data in the Media Look for examples of graphs in newspapers and magazines. Talk with your child about what these graphs represent. What do these graphs communicate? Discuss why the graph maker chose to use that type of graph. What other choices might you make if you were creating a graph that represented these data? Make comparison statements about the data you found.

Thank you for supporting your child's learning.

