

Dear Family,

Today my class started **Chapter 1: Use Place Value to Communicate**. I will be learning to find patterns in numbers and to read, write, and identify place value of numbers through ten thousands. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**pattern** A sequence of numbers, figures, or symbols that follows a rule or design. Example: 2, 4, 6, 8, 10

**place value** The value given to a *digit* by its place in a number. In 349 the 3 is in the hundreds place and has a value of 300.

**is equal to** Having the same value

**round** To change the *value* of a number to one that is easier to work with. 27 rounded to the nearest ten is 30.

## Activity

Assemble about 50 of any small items you have around the house (pennies, paper clips, buttons, etc.). In the first row, put 3 items. Add 2 items to each new row for several rows. Ask: How many items will go in the next row? Ask: How do you know? What is the pattern? Take turns arranging the items in new patterns.

## Books to Read:

***How Many Snails***

by Paul Giganti, Jr.

***The King's Commissioner***

by Aileen Freidman

***17 Kings and 42 Elephants***

by Margaret Mahy

Dear Family,

Today my class started **Chapter 2: Add to Solve Problems**. I will learn how addition will help me every day. I will also learn how addition can help when you want to buy things. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**Commutative Property of Addition** states that the order in which the numbers are added does not change the sum

$$3 + 4 = 7 \text{ and } 4 + 3 = 7$$

**Identity Property of Addition** states that the sum of any number and zero is the number

$$4 + 0 = 4 \text{ and } 0 + 4 = 4$$

**Associative Property of Addition** states that grouping the addends does not change the sum

$$(3 + 3) + 4 = 10 \text{ and } 3 + (3 + 4) = 10$$

**regroup** renaming a number using place value

$$10 \text{ ones} = 1 \text{ ten}$$

**estimate** finding an answer that is close to the exact answer

## Activity

Collect various items around the house and set up a store. Make whole number price tags for each item. Take turns acting as the store clerk and the shopper. When acting as the store clerk, write down each item the shopper chooses and add the items up. Give the shopper the bill. Acting as the shopper, use paper and buttons as play money to pay for the items. Ask: How much money did I spend? Ask: How much change did I get back?

## Books to Read

*The Hershey's Kisses Addition Book*  
by Jerry Pallotta

*Once Upon a Dime*  
by Nancy Kelly Allen

*The M & M's Counting Book*  
by Barbara McGrath

Dear Family,

Today my class started **Chapter 3: Subtract to Solve Problems**. I will be learning how to subtract large numbers and how to estimate differences. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**difference** The answer in a subtraction problem.

**regroup** To take apart a number to write it in a new way.

## Activity

Fill a container with small objects (pennies, buttons). Write down the amount of items in the container. Then, fill another container with other small objects (popcorn kernels, beads). Do not fill this container as full as the first. Write down the amount of items in the second container. Keep the amounts hidden and ask a family member to guess the amount of objects in each container. Write down their guesses. Round each guess to the closest ten and subtract the amounts. Compare this number to the actual difference in objects.

## Books to Read

### ***Subtraction Action***

by Loreen Leedy

### ***Hannah's Collections***

by Marthe Jocelyn

### ***Alice in Pastaland***

by Alexandra Wright

Dear Family,

Today my class started **Chapter 4: Develop Multiplication Concepts and Facts**. I will be exploring the meaning of multiplication, using models to multiply, and using multiplication properties and rules. I will also learn how to multiply by the numbers 2, 4, 5, 10, 0, and 1. Here are my vocabulary words and an activity we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**multiply** The operation of repeated addition of the same number.

**factor** A number that divides into a whole number evenly. Also a number that is multiplied by another number.

**product** The answer to a multiplication problem.

**array** Objects or symbols displayed in rows of the same length and columns of the same length.

**Commutative Property of Multiplication** The property that states that the order in which two numbers are multiplied does not change the product.

**Zero Property of Multiplication** The property that states any number multiplied by zero is zero.

**Identity Property of Multiplication** If you multiply a number by 1, the product is the same as the given number.

## Activity

Place two cups together on the table. Place another set of two cups next to the first two. Finally, place one last set of two cups next to those. On the table you should have three pairs of cups. Count the cups to see how many you have in three sets of two. Now rearrange the cups into two groups, with three cups in each group. Count the cups again to see how many you have in two sets of three. Ask: What was your answer each time? Ask: What property of multiplication does this demonstrate?

## Books to Read

***Anno's Mysterious Multiplying Jar***

by Mitsumasa Anno

***The Rajah's Rice***

by David Barry

***The King's Chessboard***

by David Birch

Dear Family,

Today my class started **Chapter 5: Develop More Multiplication Facts**. I will be learning to multiply by 3, 6, 7, 8, 9, 11, and 12. I will also be learning to use the *associative and commutative properties of multiplication*. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**Associative Property of Multiplication** The property that states that the grouping of the factors does not change the product.

$$3 \times (6 \times 2) = (3 \times 6) \times 2$$

**factor** A number that divides into a whole number evenly. Also a number that is multiplied by another number. 8 is a factor of 24.

**product** The answer to a multiplication problem. It also refers to expressing a number as product of its factors.

## Activity

Place 81 paper clips in a bowl. Take 9 paper clips and put them into a small plastic bag. How many small plastic bags will you need for all 81 paper clips? What if you put 18 paper clips in to each bag? How many bags would you need then?

## Books to Read

***Spaghetti and Meatballs for All!***

by Marilyn Burns

***Each Orange Has 8 Slices***

by Paul Giganti, Jr.

***2 × 2 = Boo Multiplication Stories***

by Loreen Leedy

Dear Family,

Today my class started **Chapter 6: Develop Division Concepts and Facts**. I will learn how to relate subtraction and multiplication to division. I will also learn how to divide by 2, 5, and 10. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**divide** To separate into equal groups. Can also be thought of as repeated subtraction.

Example:  $6 \div 2 = 3$  or  $2 \overline{)6}$   
 divisor      quotient      dividend

**array** Objects or symbols displayed in rows of the same length and columns of the same length. The length of a row might be different from the length of a column.

**divide** To separate into equal groups.

**dividend** A number that is being divided.

**divisor** The number by which the dividend is being divided.

**fact family** A group of related facts using the same numbers.

**quotient** The answer to a division problem.

## Activity

Place 12 pencils on a table. Divide the pencils into two equal groups. How many pencils are in each group? How many pencils would be in each group if you divided them into four equal groups?

## Books to Read

***The M & M's Color Pattern Book***

by Barbara McGrath

***Math Curse***

by Scieszka & Smith

***17 Kings and 42 Elephants***

by Margaret Mahy

Dear Family,

Today my class started **Chapter 7: Develop More Division Facts**. I will be learning to divide by 3, 4, 6, 7, 8, and 9. I will also be learning to find unit cost. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**array** Objects or symbols displayed in rows of the same length and columns of the same length. The length of a row might be different from the length of a column.

**dividend** A number that is being divided.

**divisor** The number by which the dividend is being divided

**quotient** The result of a division problem.

## Activity

Cut 10 circles out of construction paper. Ask: How many circles are there total? How many groups of 2 can you make? How many groups of 5 can you make? If you take two away, how many groups of 2 can you make?

## Books to Read

### ***Math Man***

by Teri Daniels

### ***The Toothpaste Millionaire***

by Jean Merrill

### ***Reese's Pieces Count by Fives***

by Jerry Pallotta

Dear Family,

Today my class started **Chapter 8: Use Patterns and Algebraic Thinking**. I will be learning to model and use number sentences and expressions. I will also be learning to make a table to show functions. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**number sentence** An expression using numbers and the equal sign.  $3 + 2 = 5$

**expression** A combination of numbers, variables, and operation symbols that represents a mathematical quantity.  $4 \div 2$

**function** A relationship where one quantity depends on another quantity.

**rule** Tells you what to do to the first number in a pattern to get the second.

## Activity

Write several different expressions on small slips of paper. Write the answers to the expressions on separate slips of paper. Pull one slip of paper from each pile at a time. Tell whether the slips form a correct number sentence. Repeat until all number sentences have been created.

## Books to Read

***Spaghetti and Meatballs For All!***

by Marilyn Burns

***17 Kings and 42 Elephants***

by Margaret Mahy

***Cardinal Numbers***

by Marcia Schonberg

Dear Family,

Today my class started **Chapter 9: Measure Length, Area, and Temperature**. I will be learning to estimate and measure length in both metric and customary units. I will also be learning to calculate perimeter and area. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**length** measurement of the distance between two endpoints.

**meter** a metric unit for measuring length or height

**perimeter** the distance around a shape or region

**area** the number of square units needed to cover the inside of a region or plane figure

**thermometer** a device that measures how hot or cold something is

## Activity

Use an inch ruler to measure the length of various items around the house. Compare the length of all of the items. Which is the longest? Which is the shortest?

## Books to Read:

***How Tall, How Short, How Far Away***  
by David Adler

***Mr. Archimedes' Bath***  
by Pamela Allen

***Pigs on a Blanket***  
by Amy Axelrod

Dear Family,

Today my class started **Chapter 10: Measure Capacity, Weight, Volume, and Time**. I will be learning to estimate and measure capacity, weight/mass, and Volume. I will also be learning to tell time. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**capacity** The amount a container can hold.

**gram (g)** A metric unit for measuring mass.

**kilogram (kg)** A metric unit for measuring mass.  $1000\text{g} = 1\text{ kg}$

**liter (L)** A metric unit for measuring volume or capacity.  $1\text{ liter} = 1000\text{ milliliters}$

**mass** The amount of matter in an object.

**pint (pt)** A unit of capacity larger than a cup.

**quart (qt)** A unit of capacity smaller than a gallon.

**volume** The number of cubic units needed to fill a solid figure.

**weight** How heavy something is.

## Activity

Go around your house and count every instrument that measures time. How many did you find?

## Books to Read:

***How Tall, How Short, How Far Away***  
by David Adler

***Mr. Archimedes' Bath***  
by Pamela Allen

***Counting on Frank***  
by Rod Clement

Dear Family,

Today my class started **Chapter 11: Identify Geometric Figures and Spatial Reasoning**. I will be learning to identify, describe, and classify two- and three-dimensional figures. I will also be learning to identify geometric patterns and name whole numbers on a number line. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

### Key Vocabulary

**perimeter** The distance around a shape or region.

**congruent** Two shapes having the same size and the same shape.

**polygon** A closed plane figure formed using line segments that meet only at their endpoints

**symmetry** An object that has sides that are mirror images.

**three-dimensional** A figure that has length, width, and height.

**two-dimensional** The outline or shadow of a shape, which has only length and width.

### Activity

On construction paper, draw the outline of a triangle, quadrilateral, pentagon, hexagon and octagon. Cut the shapes out and take turns quizzing each other on the names of the different shapes.

### Books to Read:

***Changes***

by Marjorie N. Allen

***The Greedy Triangle***

by Marilyn Burns

***Wing on a Flea***

by Ed Emberley

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Dear Family,

Today my class started **Chapter 12: Organize, Display, and Interpret Data**. I will be learning to collect, organize, record, and display data on a tally chart. I will also be learning to display and read data in a bar graph and pictograph. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**tally chart** A way to keep track of data using tally marks to record the results.

**bar graph** A graph that compares data by using bars of different lengths and heights.

**pictograph** A graph that compares data by using picture symbols.

**probability** A number between 0 and 1 that measures the likelihood of an event happening.

**survey** A method of collecting data.

**data** Information

**scale** The numbers along the side of a bar graph.

**line plot** A graph that used columns of Xs above a number line to show frequency of data.

## Activity

Prepare a fresh fruit salad. Count out the number of pieces of each fruit used. Record the data on a bar graph.

## Books to Read

***The Water Home***  
by Graeme Base

***Hannah's Collections***  
by Marthe Jocelyn

***Tiger Math, Learning to Graph from a Baby Tiger***  
by Nagda and Bickel

Dear Family,

Today my class started **Chapter 13: Develop Fractions**. I will be learning to identify, read, and write fractions. I will also be learning to compare fractions. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**fraction** A number that part of a whole or part of a set.  $\frac{1}{2}$ ,  $\frac{3}{4}$ ,  $\frac{5}{6}$

**numerator** The top number in a fraction. In  $\frac{1}{2}$ , 1 is the numerator.

**denominator** The bottom number in a fraction. In  $\frac{1}{2}$ , 2 is the denominator.

**equivalent fractions** Fractions that have the same value.  $\frac{1}{2}$  and  $\frac{2}{4}$

**is greater than (>)** A symbol to show that the first number is greater than the second.

**is less than (<)** A symbol to show that the first number is less than the second.

## Activity

Use construction paper to cut out 4 circles. With a pencil or a marker, draw lines to divide the circle into equal parts. Divide each circle into a different amount of equal parts. After you have divided the circles, shade in as many areas as you choose on each circle. Finally, on the back side of the circle, record the fraction that represents the amount of shaded areas.

## Books to Read:

***Fraction Fun***

by David Adler

***The Fraction Family Moves West***

by Marti Dryk

***Piece=Part=Portion***

by Scott Gifford

Dear Family,

Today my class started **Chapter 14: Understand Fractions and Decimals**. I will be learning to add and subtract money in decimals notation. I will also be learning to relate fractions and decimals to money. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

### Key Vocabulary

**decimal** A number with one or more digits to the right of the decimal point.  
8.37

**decimal point** A period separating the ones and the tenths in a number.  
0.8

**tenth** One of ten equal parts,  $\frac{1}{10}$ , or 0.1.

**hundredth** A place value position. One of one hundred equal parts,  $\frac{1}{100}$ , or 0.1.

**fraction** A number that represents part of a whole or part of a set.  
 $\frac{1}{2}$

**addition** An operation on two or more addends that is equal to a sum.  
 $9 + 3 = 12$

**subtraction** An operation that tells the difference, when some or all are taken away.  
 $9 - 4 = 5$

### Activity

Use construction paper to draw a large pizza with 8 individual slices. Cut out each individual slice and then place the pizza on a plate. If you take away 2 of the slices, what fraction, in simplest form, represents the number of slices taken away? Repeat the activity by changing the number of slices you take away.

### Books to Read

***The Fraction Family Moves West***  
by Marti Dryk

***Piece=Part=Portion***  
by Scott Gifford

***Gator Pie***  
by Louise Mathews

Dear Family,

Today my class started **Chapter 15: Multiply by one-Digit Numbers**. I will be learning to multiply multi-digit numbers. I will also be learning to estimate products and multiply money. Here are my vocabulary words and an activity that we can do together.

Love, \_\_\_\_\_

## Key Vocabulary

**multiple** A multiple of a number is the product of that number and any whole number. 5 is a multiple of 5 because  $3 \times 5 = 15$ .

**estimate** A number close to an exact value; an estimate indicates about how much.  
 $47 + 22$  (estimate  $50 + 20$ ) about 70.

**round** To change the value of a number to one that is easier to work with. 24 rounded to the nearest tenth is 20.

**product** The answer to a multiplication problem.

**multiply** Find the product.  
 $4 \times 3 = 12$   
Four groups of three  
is equal to 12.

## Activity

Collect items around the house that you would like to sell at a yard sale. Put price tags on the items. Figure out how much it would cost a buyer if they wanted to buy one, two or three of each of your items.

## Books to Read

***Anno's Mysterious Multiplying Jar***  
by Mitsumasa Anno

***Each Orange Has 8 Slices***  
by Paul Giganti, Jr.

***The Best of Times***  
by Greg Tang