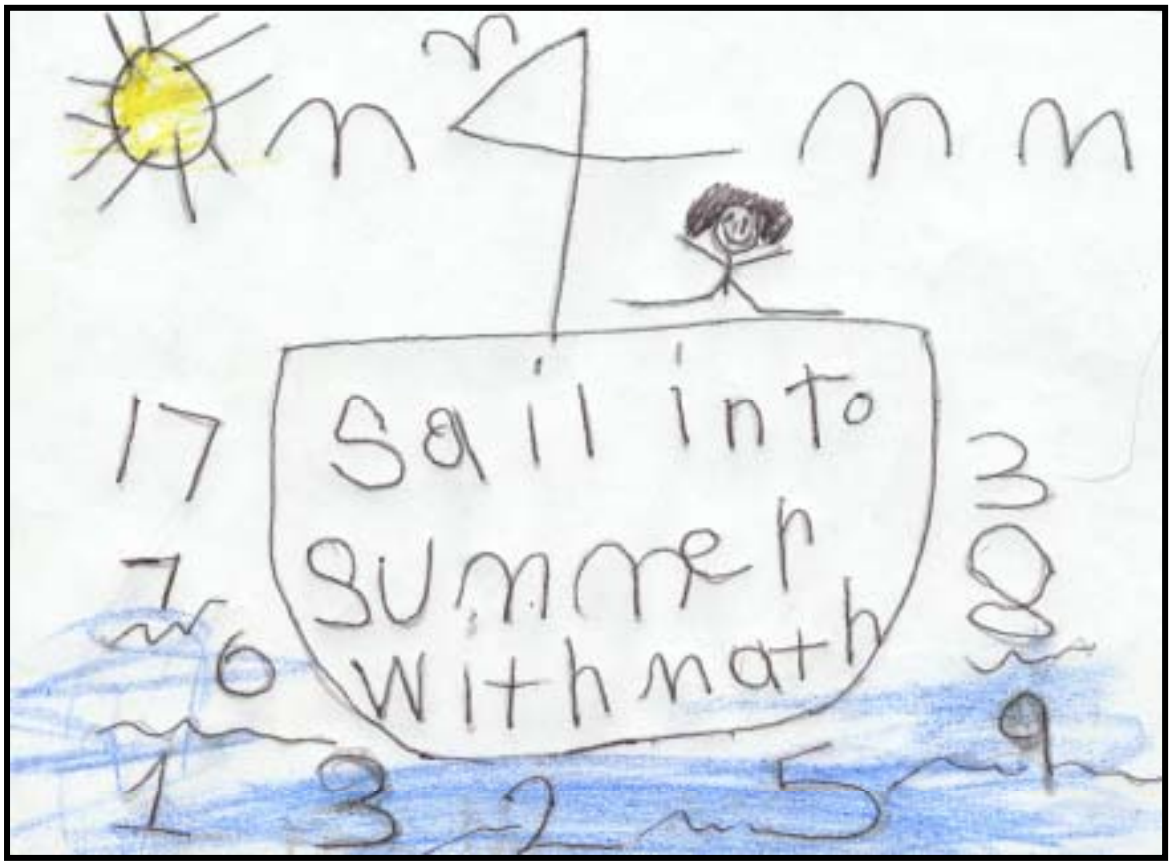
Sail into Summer with Math!



For Students Completing Kindergarten

This summer math booklet was developed to provide students an opportunity to review grade level math objectives and to improve math performance.

Sail into Summer with Math!

Dear Parents,

In this booklet you will find math activities that will help to review and maintain math skills learned in kindergarten and prepare your child for first grade. These activities are varied and meant to show how much fun and relevant math can be in everyday life. There are activities that can be done throughout vacation, at the pool, at a restaurant, on the beach, etc. (If an activity has an asterisk *, it indicates a more challenging problem.)

Have a great time "sailing into summer with math!"

The "Sail into Summer with Math!" booklets were developed by:
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7 – Jody Baxley, 8 – Dottie Reitz, and Ed Nolan.

A special thanks to Don Kress (Community Superintendent) and Cynthia Rattley (Performance Director) for their help and support with this project.

The cover of the 2001 Kindergarten summer math booklet was created by **David Moy**, a Kindergarten student at Christa McAuliffe Elementary School.

Week 1 / Summer Calendar

Students in kindergarten use calendar skills daily. Students begin each day by putting the appropriate number for the day of the month on the calendar and discussing what today, yesterday, and tomorrow are. There are calendars at the end of the packet to use if you wish.

___ 1. Record special summer events on a calendar with your child.

___ 2. Go through a calendar. Help your child to find or circle the month on each page.

___ 3. Look at each month of the calendar. Find the holidays. Have your child draw a picture in the box for each holiday your family celebrates. (Example: Fireworks for July 4th, turkey for Thanksgiving, etc.)

___ 4. *Each day of summer vacation, have your child put an X on that day in the morning. Talk about what day it is today, what day it was yesterday, and what day it will be tomorrow.

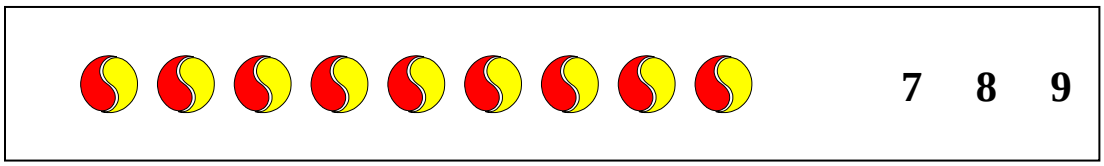
___ 5. *Practice saying the days of the week in order starting with Wednesday.

___ 6. *Mark the first day of school on your calendar. Count how many days there are left until the first day of school.

Week 2 / Numeration (Numbers and Place Value)

Students in kindergarten learned to count objects to 10, group objects into sets and count them, and order sets of objects (1 to 10 and 10 to 1). They practiced recognizing, reading, and ordering numerals, and matching numerals to the corresponding set. They also worked on comparing sets (which has more or less) and making two unequal sets equal by moving, adding, or taking away objects.

___ 1. Count the objects in each set and circle the number to show the amount.



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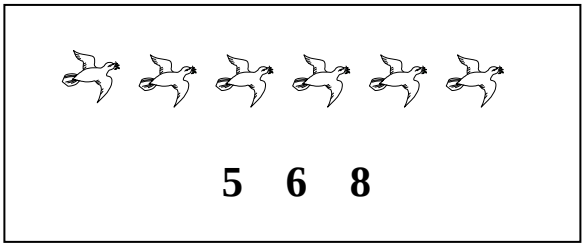

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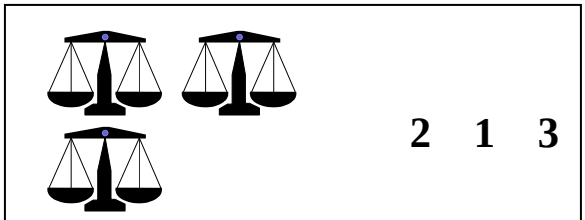

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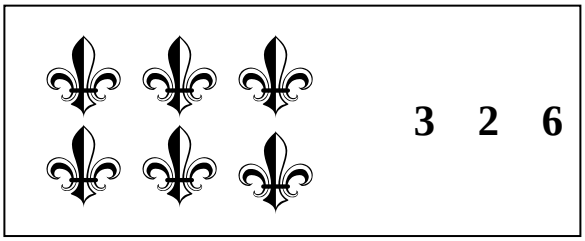

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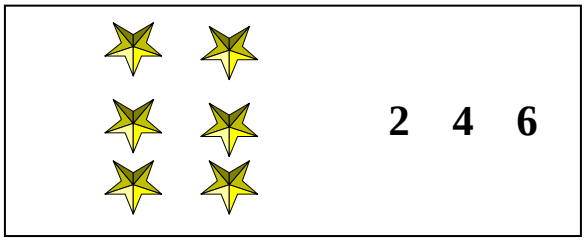
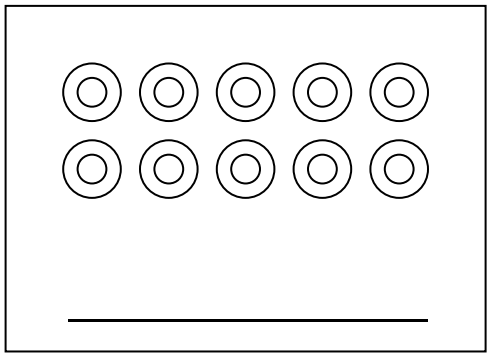
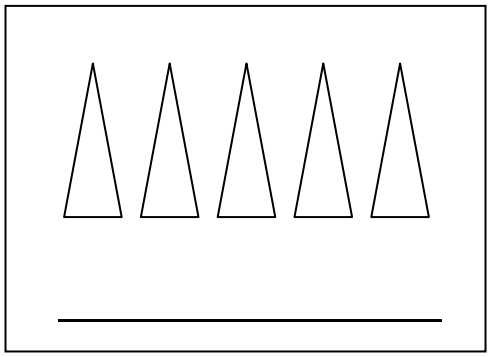


2 4 6

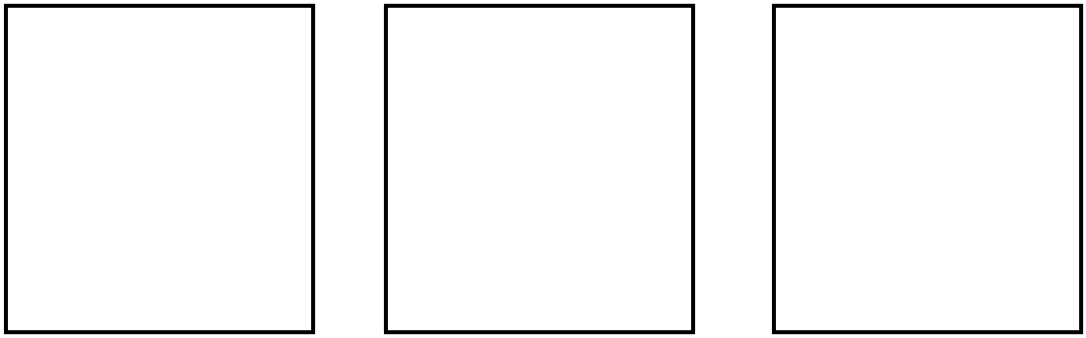
___ 2. Count the object in the sets. Write the number of objects in each set on the line below the set. Color 5 objects in each set.





___ 3. In each rectangle, draw objects to match each numeral.

7 **2** **4**



Color the rectangle that has the most objects blue and color the rectangle that has the least objects green.

___ 4. Practice writing your numbers 1 to 10.

___ 5. In the car, make a list of colors. Put a tally mark next to each color when you find a car that is that color. Count the tally marks. Discuss which has the most, least, same number, etc.

___ 6. Do the above activity looking for vehicles.

___ 7. At the beach collect many shells. Sort them into different groups (such as by size, by kind, by color, by shape, etc.). Write the number of each group in the sand. You can replace collecting rocks in the park if you don't go to the beach.

___ 8. Count the number of people in a restaurant, at the park, at the pool, etc.

___ 9. *Make a collection of objects: coins, rocks, seeds, etc. Put them into groups of tens. Count the groups of tens.

___ 10. *Have your child estimate how many seeds he/she will find in a piece of watermelon. Divide seeds into groups of ten.

___ 11. *Mental math. Choose a number and start counting. When you stop counting your child has to say the number that comes next.
Examples: 1, 2, 3, ___, 5, 6, 7, ___ or 38, 39, ___, 41, 42, ___.

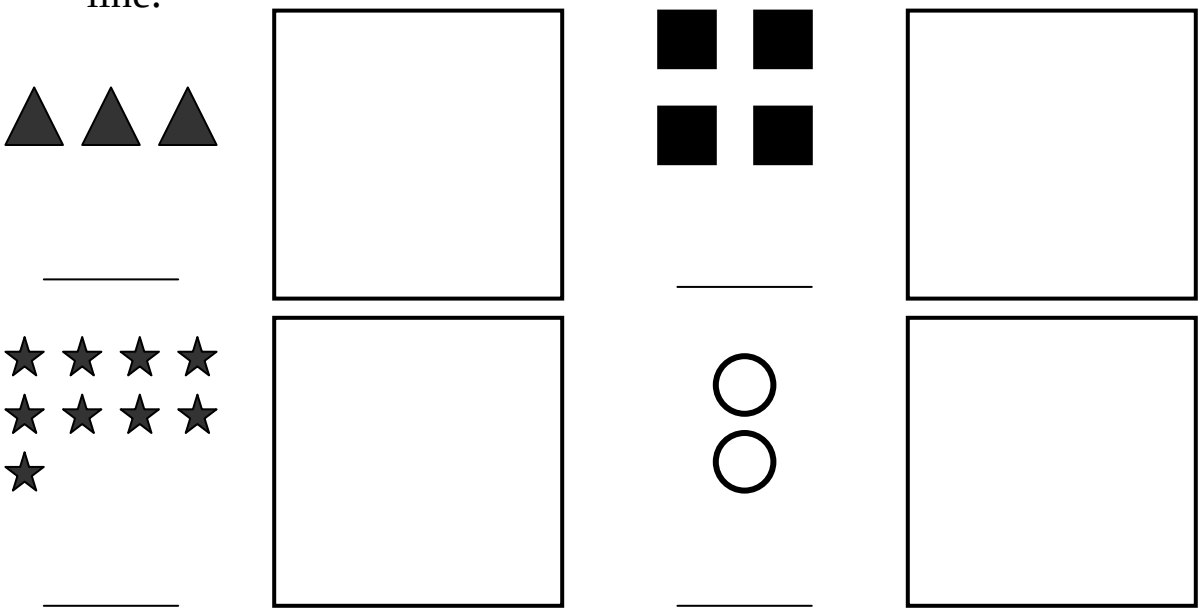
___ 12. *Practice counting to 100. Practice counting by tens to 100.

___ 13. *Practice writing numbers 1 to 100.

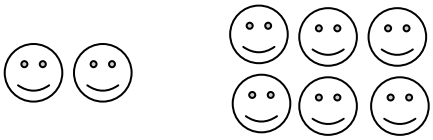
Week 3 / Addition and Subtraction

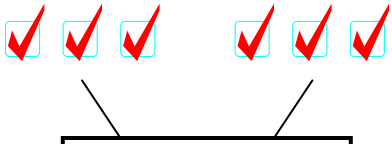
Students in kindergarten learned the beginning concept of addition using hands-on materials. They experimented with arranging a set of objects into subgroups. They also worked on constructing a set with one more when shown a set of objects. Students then practiced counting the number of objects in two separate sets, put the sets together, and named the number of objects in the combined set.

___ 1. Count the number in the first set. In the square, draw a set with one more. Write the number of objects you drew in the set on the line.



2. Count the number of objects in each set. In the square, draw a picture of both sets combined. Write the total number of objects on the line.





total = _____ total = _____.

___ 3. Practice rolling two dice. Count how many dots there are all together.

___ 4. *Mental math (math without paper). In the car, do simple addition and subtraction problems: 2 plus 1, 2 plus 2, etc.

___ 5. *Help prepare drinks for your family. Put the same number of ice cubes in each glass. How many ice cubes were used all together?

___ 6. *Solve the following addition problems (use counters if needed).

3 + 2 = _____ 5 + 5 = _____ 4 + 1 = _____

2 + 5 = _____ 1 + 3 = _____

___ 7. *Solve the following subtraction problems (use counters if needed).

5 – 3 = _____ 4 – 0 = _____ 6 – 3 = _____

7 – 2 = _____ 9 – 4 = _____

Week 4 / Money

Students in kindergarten learned how to identify a penny and state its value as one cent. They worked on counting 10 pennies or less and stating the amount in cents.

Penny

Nickel

Dime

___ 1. Count and circle the value of each set of pennies.

3¢ 6¢ 9¢

1¢ 4¢ 2¢

1¢ 8¢ 4¢

___ 2. *<u>Circle</u> each penny. <u>Draw</u> a line under each nickel. <u>Make</u> an X over each dime.

___ 3. Practice counting pennies. Take a handful of pennies and divide them into 2 groups. How many cents does each group have?

__ 4. *Take a handful of coins and divide then into groups: pennies, nickels, dimes, and quarters.

___ 5. *Practice counting groups of dimes by tens.

Week 5 / Time and Temperature

This past year in kindergarten, students associated the time of day that certain events took place (morning, afternoon, evening, etc.) and explored the days of the week.

___ 1. <u>Draw or cut out</u> a picture of something that you do at each time of day.

Morning	Afternoon	Evening

___ 2. Study the pictures on the left. What happens in the morning? What happens in the afternoon? What happens in the evening? Draw a line from the correct work to the picture.

Morning

Afternoon

Evening

___ 3. On two different days this week sit down and plan the day in the morning. Write the words morning, afternoon, and evening on a sheet of paper. Draw a picture or write what you plan to do on the second day. In the evening, review the plans to see if you have completed everything.

___ 4. *Make a clock face with a paper plate. Help your child to put a 12 at the top, 6 at the bottom, etc. Practice counting the hours. (You can add hands to the clock if you want.)

___ 5. Say and point to the days of the week.

Monday Tuesday Wednesday Thursday

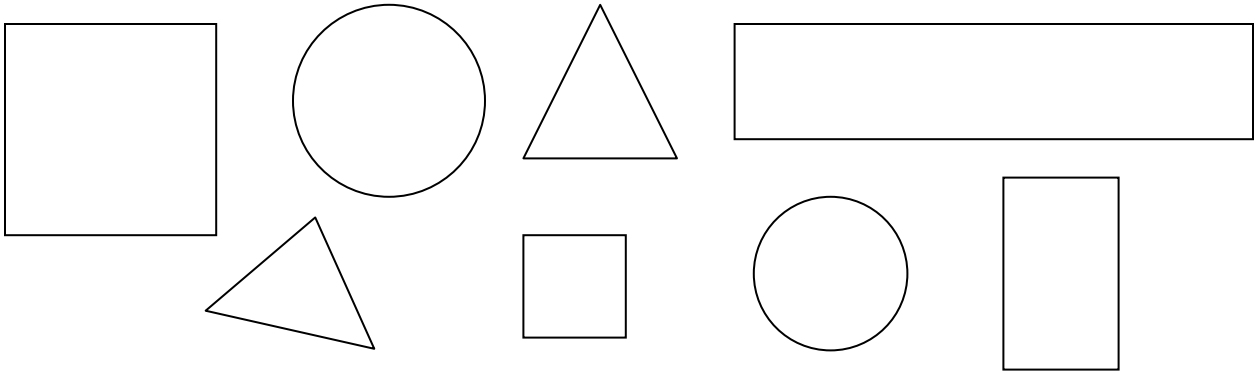
Friday Saturday Sunday

___ 6. *Set an alarm clock for different times of the day. When the alarm goes off, look at a clock and talk about where the hour hand is.

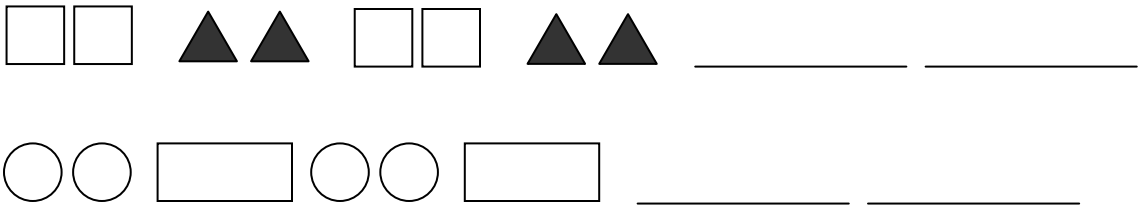
Week 6 / Geometry and Common Fractions

In kindergarten, students learned how to select and sort objects according to one or more traits. They practiced identifying squares, circles, and rectangles and copying a pattern using 2 or 3 shapes or objects. They also explored the beginning concepts of fractions including: whole and parts of a whole, equal and unequal, and one-half of a whole.

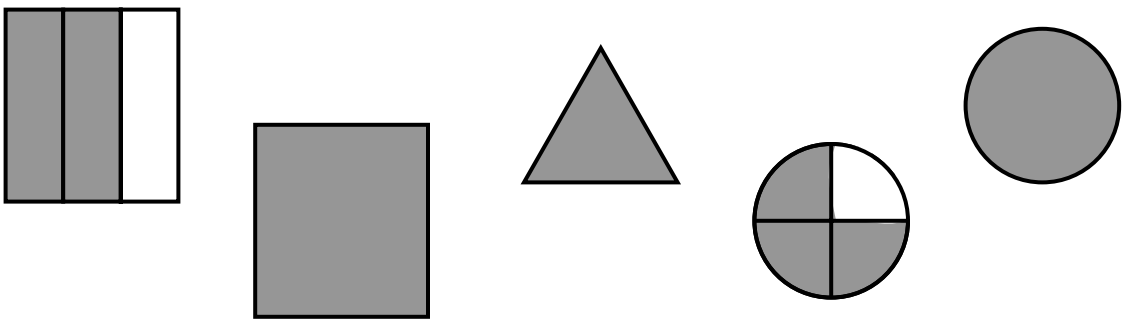
___ 1. Study the shapes. Find the rectangles and color them blue. Find the squares and color them red. Find the circles and color them green. Find the triangles and color them yellow.



___ 2. The shapes in each row form a pattern. Name each shape in the pattern. Finish the pattern on the line by adding the next shapes in the pattern.



___ 3. Circle the shapes that show the whole area shaded.



___ 4. Play "I Spy" using shapes. "I spy something that is shaped like a circle," etc.

___ 5. Divide a piece of paper into fourths. Draw a small rectangle, triangle, circle, and square in the corner (one shape in each box). Go on a hunt in your house for shapes. Draw the object in the correct box (example: draw a ball in the circle box, a TV in the square box, etc.).

___ 6. Play "Follow the Leader" using a repeating pattern (example: hop, hop, jump, hop, hop, jump, etc.).

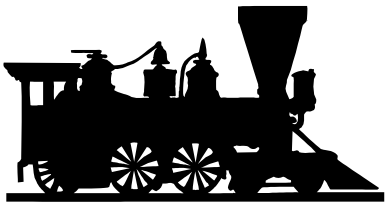
___ 7. *Drink some of your drink. Tell someone when it is half gone. Fold your napkin in half. Try to break a piece of bread in half.

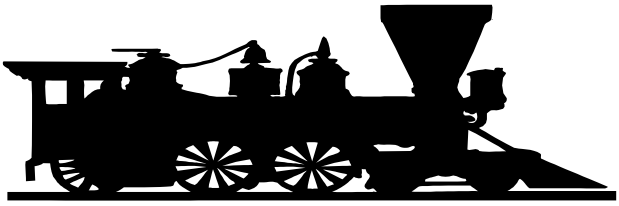
___ 8. *Divide things in half: sandwich, waffle, cracker, pancakes, cookies, apple, etc.

Week 7 / Measurement

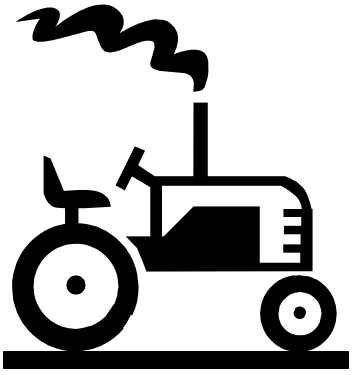
In kindergarten, students explored the concepts of length, capacity, and weight using hands-on materials. They practiced comparing and ordering things by length/height and used terms to describe height, weight, and capacity (short, long, heavy, light, full, empty, etc.). The students also explored length by using non-standard units end-to-end to measure objects.

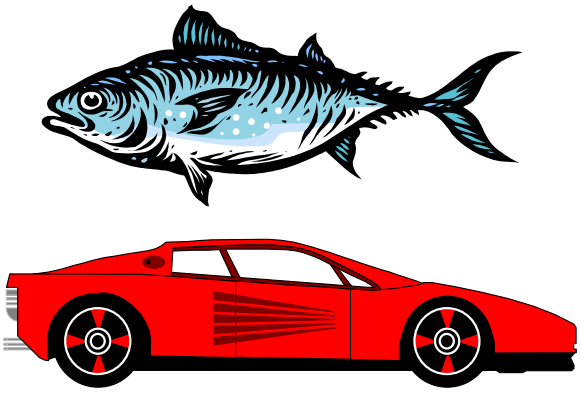
___ 1. Use a red and blue crayon for this activity. Circle each object that is longer with a red crayon. Circle the shorter object with a blue crayon.





___ 2. Use non-standard units (paper clips, pretzels, etc.) to measure the length of each object.





___ 3. At the beach, collect 5 shells. Put them in order from smallest to largest. You can also do this activity in the park by collecting rocks.

___ 4. *Follow a recipe with your child. Discuss the measuring terms: cup, tablespoon, etc. Let them help measure the ingredients.

___ 5. When in the bathtub, let your child use a variety of containers. Talk about full, empty, etc., and compare how much each holds.

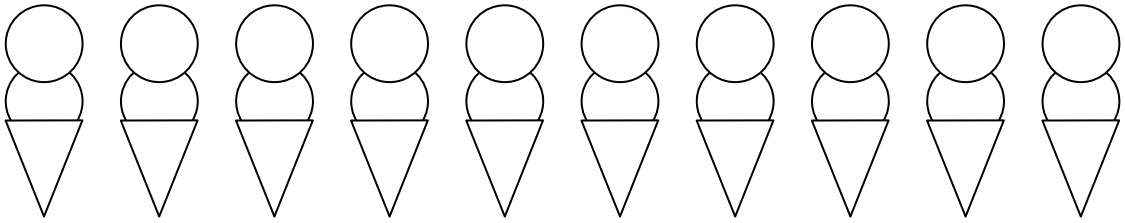
Week 8 / Problem Solving and Make-a-Graph Project

___ 1. Use the table below to take a survey of people's favorite ice cream flavor. Ask 10 people to choose his/her favorite from the list.

___ 2. Put a tally mark next to each flavor chosen.

Ice Cream Flavor	Number of People
Chocolate	
Vanilla	
Cookies and Cream	
Strawberry	
Cookie Dough	
Chocolate Chip	

___ 3. On a separate sheet of paper or poster board make a graph showing your results. You may use pictures like the ones below for your graph. The graph should have types of ice cream along the bottom of the graph and numbers of people along the side.



___ 4. *Write two sentences about what your graph showed (example: which was the most popular, least popular, etc.).

___ 5. *Write a letter to your first grade teacher. Explain what your favorite thing is to do in math. Tell him/her what you hope to learn in math this next year.

Dear Teacher,

JUNE						
SUNDAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SATURDAY**

JULY						
SUNDAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SATURDAY**

AUGUST						
SUNDAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SATURDAY**

SEPTEMBER						
SUNDAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SATURDAY**

OCTOBER						
SUNDAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SATURDAY**

NOVEMBER						
SUNDAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SATURDAY**