Dear Parents,

In Mathematics, your child will work to answer the following questions through exploration of these ideas and concepts:

How are addition and subtraction related?
* Solve word problems by adding and subtracting (within 20) using objects, drawings, and/or equations.
* Add and subtract within 20 using a variety of strategies, working towards computational fluency within 10.
* Use the properties of operations as strategies to add and subtract.
  (Ex: If 8 + 3 = 11 is known, then 3 + 8 = 11 can also be known – commutative property of addition; to add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12 – associative property of addition)
* Understand the meaning of the equal sign and determine if equations involving addition and subtraction are true or false.
* Determine the unknown number that makes an addition or subtraction equation true. *(Ex: 8 +? =11; 5 =? - 3; 6 + 6 =?)*

How can I break-apart (decompose) numbers to help me add/subtract?
* Understand that the two digits of a two-digit number represent amounts of tens and ones.
* Add within 100 using concrete models or drawings and relate the strategy used to a written expression or equation.
* Mentally find 10 more or 10 less than a given number, without having to count.
* Subtract multiples of 10 from multiples of 10 using concrete models or drawings and relate the strategy used to a written expression or equation.

What does it mean to measure?
* Measure and express the length of an object as a whole number of "length" units, with no gaps or overlaps.
* Order and compare objects by length.

How can I ask and answer questions using charts and graphs?
* Organize, represent, and interpret data using tally tables, picture graphs and bar graphs.
* Ask and answer questions about the data represented in the chart or graph.

How can defining attributes help me create and partition shapes?
* Distinguish between defining attributes *(Ex: triangles have three sides)* versus non-defining attributes *(Ex: color, orientation, overall size)*.
* Compose two-dimensional shapes to create composite shapes (a shape that can be divided into more than one of the basic figures).
* Partition circles and rectangles into two and four equal shares; describe the shares using the words *halves, fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of.*
* Tell and write time in hours and half-hours using analog and digital clocks.

In Science, your child will work to answer the following questions through exploration of ideas and concepts about *Waves: Light and Sound*:

What happens when materials vibrate?
* Sound can make matter vibrate, and vibrating matter can make sound

How does light interact with objects?
* Objects can be seen if light is available to illuminate them or if they give off their own light.
* Light travels from place to place.
* Some materials allow light to pass through them; others allow only some light through.
* Some materials block all the light and create a dark shadow on any surface beyond them, where light cannot reach.
* Mirrors can be used to redirect a light beam.

How can sound and light be used to communicate over a long distance?
* People use a variety of devices to communicate (send/receive information) over long distances.
* A variety of tools and materials can be used to solve problems.