Kindergarten Math and Science Expectations

3rd Quarter

Dear Parents,

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

How can counting help us compare sets?

- Count to at least 75 by ones, 100 by tens, and 50 by fives.
- Count up to at least 75 beginning from any given number.
- Read, write and represent numbers at least to 15.
- Count to tell the number of objects, pairing each object with one number name (may touch and count each object).
- Understand the next number is one larger than the number before.
- Identify whether the number of objects in one group is *greater than, less than,* or *equal to* the number of objects in another group.
- Compare two numbers between 0 and 20.
- Count objects in a variety of arrangements and quickly identify the number of items in a set without counting.

What are the different ways we can solve problems and represent our thinking?

- Represent problem solving by using objects, fingers, mental images, sounds, acting out situations, and drawings.
- Use objects and drawings to represent how we can break numbers, up to 10, apart.
- Find the numbers that make 5 and 10 when added to a given number.
- Begin to develop fluency for adding and subtracting within 10 using a variety of strategies and manipulatives.
- Understand that the numbers 11-19 are made up of a group of ten ones and some more ones.

How do attributes help us compare and classify objects?

- Classify, sort, and count objects using both measurable and non-measureable attributes
- Describe and compare measurable attributes of objects such as: length, weight, height, and temperature

How can shapes be put together to make new shapes?

- Describe objects in the environment using names of shapes and the positions of object.
- Correctly name shapes, regardless of the direction or overall size of the shape.
- Model shapes in the world by building and drawing shapes.
- Compose simple shapes to form larger shapes. *(Ex: "Can you join these two triangles with full sides touching to make a rectangle?")*

In Science, your child will answer the following questions through exploration of ideas and concepts about *Weather and Climate* and begin to answer questions and explore ideas about *Interdependent Relationships in Ecosystems: Animals, Plants and their Environment*:

How does sunlight affect the Earth's surface? How can we reduce the effects of the sun?

- Sunlight warms Earth's surface.
- Tools and materials can be used to reduce the warming effect of sunlight on an area.

What is the purpose of weather forecasting? How do you prepare for severe weather?

- People measure weather conditions to describe and record the weather and to notice patterns over time.
- Some kinds of severe weather are more likely than others within a given region.
- Weather scientists forecast severe weather so that communities can prepare for and respond to these events.
- Events have causes that generate observable patterns.

What do plants and animals need to survive?

- All animals need food in order to live and grow.
- Animals get their food from plants and other animals.
- Plants need water and light to live and grow.
- Living things need water, air, and resources from the land.