



Dear Parents,

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

What is multiplication/division and how does it relate to addition/subtraction?

- Understand that the multiplication symbol ‘x’ means “groups of.” (Ex: 5×7 refers to 5 groups of 7 objects).
- Understand in division situations you are partitioning a number of objects into equal shares. (Ex: $56 \div 8$ refers to when 56 objects are partitioned into equal shares of 8 objects each).
- Solve word problems (one- and two-step) involving multiplication and division within 100.
- Use a variety of strategies to multiply and divide within 100; fluency with 2, 5, and 10 facts.

What strategies can I use when solving addition/subtraction problems with larger numbers?

- Use a variety of strategies to add and subtract within 1000.
- Round whole numbers to the nearest 10 or 100.
- Solve two-step word problems using the four operations.

What is a fraction?

- Understand that a fraction means to divide a whole object into equal size parts.
- Understand what the numerator and the denominator represent in a fraction.
- Partition shapes into parts with equal areas, labeling the area of each part as a unit fraction of the whole.

In Science, your child will answer the following questions through exploration of ideas and concepts about *Forces and Interactions*:

How do equal and unequal forces on an object affect the object?

- Effects of balanced and unbalanced forces on the motion of an object.
- Each force acts on one particular object and has both strength and direction.
- An object at rest typically has multiple forces acting on it. The forces add to give zero net force on the object.
- Forces that do not sum to zero can cause changes in the objects speed or direction of motion.

How can magnets be used?

- Electric and magnetic forces between a pair of objects do not require that the objects be in contact.
- Cause and effect relationships of electric or magnetic interactions between two objects (size of force, properties of the objects, distance apart, and orientation relative to each other).
- Magnets and scientific ideas about magnets can be used to solve problems.

How can we explain and predict interactions between objects?

- The patterns of an object’s motion in various situations can be observed and measured. When the past motion exhibits a regular pattern, future motion can be predicted from it.
- Objects in contact exert forces on each other.
- Cause and effect relationships of electric or magnetic interactions between two objects (size of force, properties of the objects, distance apart, and orientation relative to each other).