



Second Grade Science

Matter and Its Interaction

Dear Families,

Here is what your child is learning in Second Grade, during the study of Matter and Its Interaction with some specific ways you can help. Look for additional newsletters for upcoming units.

Matter and Its Interaction

Students need to:

- Know that different kinds of matter exist and many of them can be either solid or liquid, depending on temperature.
- Describe and classify matter by its observable properties.
- Know a great variety of objects can be built from a small set of pieces.
- Know that heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not.
- Know that earth materials have properties that make them useful to us.
- Know that earth materials can be changed to make them more useful to us.
- Know that engineers are people who use a process to help solve problems or make things better.
- Use the Engineering Design Process as an organized way to study a problem and identify and create possible solutions.

Key Vocabulary

Architect: a person who designs buildings and/or structures

Chemical Reaction: a process that involves arrangement of the molecular structure of a substance, as opposed to a change in physical form.

Durable/Durability: able to withstand wear, pressure, or damage

Engineers: a person who designs, builds, or maintains engines, machines, or public works.

Fair Test: an experiment that is carefully controlled to ensure that the information gathered is reliable.

Force: strength or energy as an attribute of physical action or movement

Irreversible Change: a change that is impossible to reverse; a change that can only go in one direction.

Matter: physical substance that occupies space and possesses mass

Mortar: a cup-shaped receptacle made of hard material, in which ingredients are crushed or ground.

Observable Property: a physical property, such as weight or temperature; that can be observed or measured directly.

Reversible Change: a physical change that can be undone. A final substance can be converted back to the original substance without creating a new material.

Stability: the state of being stable.

Structure: the arrangement between the parts of something complex.

Ways FAMILIES Can Help

- Use the Discovery Education link to find more information [\(see the following page for log-in information\)](#).
- Encourage free building using a variety of materials-draw in a notebook-discuss/make a list of properties of materials.
- Experiment with making mixtures. Discuss the difference between irreversible (ex: baking, paints, water and soil, etc.) and reversible (ex: trail mix, stones/shells, candies, beads, etc)
- Create "slime"-after original creation-change something in the recipe and see what happens to determine the result.
- Create "slime" again using a fair test-how can you ensure "slime" will be the same each time