

Dear Parent or Guardian,

Your child is now beginning TEKS 4.6, “Matter and Energy.” Read more to find out what your child is exploring!



## What We’re Doing

Look at all the materials on the desk! What do they all have in common?

**By the end, your child will be able to**

- describe matter using properties such as temperature, mass, magnetism, relative density, and physical state
- compare mixtures and solutions and demonstrate that matter is conserved when mixtures are formed

## At-Home Activity

**To prepare your child for TEKS 4.6, try this short activity:**

- Together, make a list of small objects you can find around your home.
- Then, for each item, write whether it can sink or float. If possible, fill a bowl of water and test to see if your list is correct.

**Engage your child by asking these questions:**

- How do you use physical properties to classify matter as a solid, liquid, or gas?
- Why is it important to know if something sinks or floats?

## Helpful Resources



Log on to *Ed* to

- download lesson PDFs
- interact with the digital lesson
- explore the FUNomenal Reader *Let’s Explore Mixed-Up Matter*



## Science Summary

**Vocabulary** for this topic includes *density, state of matter, temperature, magnetism, mass, mixture, solution, laws of conservation of matter, and mass.*

- Solids, liquids and gases are three states of matter. A solid has a definite volume and shape. A liquid has a definite volume but not a definite shape. A gas doesn't have a definite volume or shape.
- A magnet is an object that attracts iron and a few other metals. Magnetism is a physical property.
- Density is a physical property of matter. It tells how much space a certain amount of matter takes up. Objects that are less dense than water float.

## Misconception Alert!

If your child has one of these misconceptions, here's how you can help.

- **Misconception 1: Ice floats because it has air bubbles.**  
To address this, have them observe a piece of ice without noticeable air bubbles. Then place in a bowl of water to see that it floats. Explain that when water freezes, its particles arrange themselves into hollow, interlocking, six-sided geometrical shapes. This arrangement takes up more space than particles in liquid water, which is why ice floats.
- **Misconception 2: Magnets attract all metals.**  
To address this, collect a couple metal items, making sure to include aluminum in the group. Have your child test each item with a magnet. Explain that magnets are only attracted to some metals, especially metals that contain a lot of iron.

Thank you for supporting your child's education.

Sincerely,

The 4th Grade Team