Letter to Home

Chapter: Thermal Energy in Systems

Dear Parent or Guardian,

Our class is learning how thermal energy moves through systems and the relationship between particles' temperature and kinetic energy. Over the course of this chapter, students will have the opportunity to:

TEKS 7.8A Investigate methods of thermal energy transfer into and out of systems, including conduction, convection, and radiation.

TEKS 7.8B Investigate how thermal energy moves in a predictable pattern from warmer to cooler until all substances within the system reach thermal equilibrium.

TEKS 7.8C Explain the relationship between temperature and the kinetic energy of the particles within a substance.

Thank you for your continued interest and involvement in your child's schoolwork. I hope this letter helps you stay informed about what your child is studying. You and your child can continue to explore this subject by completing the following family activity. As always, please feel free to contact me if you have any questions.

Sincerely,

7th Grade Science Teachers

Family Activity

Decide once and for all which cup is best for keeping your drinks hot or cold the longest. With your child, design an experiment testing how well different cups will keep liquid hot or cold. Choose at least three different insulated cups to test. You could use a plastic insulated mug, aluminum travel cup, plastic-foam cup with a lid, thermos jug, or insulated carafe. Set up your experiment to test the water temperature in each container over time. Once you and your child have collected the data, rank the containers from best insulator to worst insulator. Discuss with your child what happened over time to the **thermal energy** (the energy due to the motion of particles that make up an object) and **heat** (the transfer of thermal energy from a region of higher temperature to a region of lower temperature) in each cup as the temperature changed.