

# Albany Elementary Science Lab Overview

The fourth grade, Kentucky Core Academic Standards for Science, consist of 4 major domains. They are: Energy, Waves and Information, Structure and Function, and Earth's Systems. This document is intended to give a general overview of each domain as seen from the perspective of the Albany Elementary Science Lab.

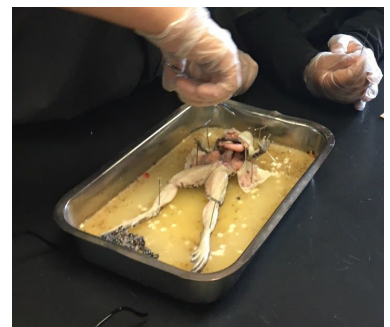
1) **Energy** – It's how work is done! The world we live in is exciting and dynamic. Objects are constantly crashing into each other and transferring their energy. Energy cannot be created or destroyed but seamlessly converts from one form to another. Without these perpetually occurring phenomena saturating our very existence there would be no motion, sound, heat, or even light. In other words there would be no you or me.



2) **Waves and Information** – Waves are simple regular patterns of motion. Amazingly it is wave motion that allows us to transmit digitized information over long distances. This is the foundation for technologies such as TV, radio, cell phones, Wi-Fi, and Bluetooth. Waves and information seems to be the jobs of the future.



3) **Structure and function** – Plants and Animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. The world around us offers wonderful ideas for creating marvelous new inventions that draw from these structures. Engineers eagerly observe there surrounding always looking for inspiration.



**4) Earth's Systems** - Volcanos rage, the oceans roar, tectonic plates collide, mountains rise, glaciers grind, and despite this humans thrive. The world is ever changing and we must be ready for anything. Perhaps the past can prepare us for the future.

