**Statement of Purpose:**

The fourth grade science curriculum is designed to provide students opportunities to expand and build upon prior scientific knowledge through contextual learning and scientific inquiry. Students will explore the theme, *Interconnections within Systems*, as determined by the *Ohio Revised Academic Content Standards and Model Curriculum for Science Education (ORACS).* Fourth grade students will study components and interconnections within various scientific systems with a focus on rigor and depth of content.

This curriculum is infused with 21st century skills, such as collaboration, critical thinking, problem solving, communication, research and meta-cognition, which are necessary for college readiness and success in the workforce (ODE, 2011)*.* These skills, in consistence with the vision of the ORACS, push students to higher, more intellectual thinking. This curriculum is contextual in nature in that it provides meaningful opportunities to address societal needs within the context of the learner (Chiarelott, 2006).

The three overarching science disciplines, physical science, earth and space science, and life science, are addressed in fourth grade by three main topics: Electricity, heat, and matter, Earth’s surface, and Earth’s living history. Each topic builds upon concepts introduced in prior grades.

The study of heat and electrical energy continues third grade concepts involving objects that have energy and how they can cause change. To elaborate, students will learn how heat and electrical energy can be transferred and transformed. Science at the fourth grade level builds upon prior knowledge about matter by introducing properties that allow or inhibit the transfer of heat or electrical energy.

As a continuation of second grade Earth science concepts about how living things interact with their environments, students will learn about how Earth changes through catastrophic events such as volcanoes, earthquakes, and landslides.

The study of Earth’s living history builds upon second grade concepts involving ecosystems and extinction. To extend prior knowledge, students will explore how changes in an ecosystem can be both beneficial and harmful and they will compare and classify fossils in order to make inferences about the past.