



Unit Premiere

Engineering Our World



In this unit, your child will embark on journey in which they will problem solve and inquire into the natural world and its laws. They will explore the interaction between the natural world and human societies. They will investigate scientific and technology advances and their impact on the society and environment.

IB Instructional Elements

Theme-

Our IB curriculum is comprised of six transdisciplinary units that have global significance and offers students the opportunity to explore human experiences.

- **How the World Works?-** An inquiry into problem solving and interdependence of the natural world and its laws; the interaction between the natural world (physical and biological) and humans societies,
- **Lincoln Curriculum Connection-** Students will explore scientific principles through research, hands on experiences, and an exploration into scientific and technology advances.

Learner Profile

The Learner Profile is a set of attributes that, taken as a whole, lay the foundation upon which international-mindedness will develop and flourish

- **Inquirers-** They will ask questions to solve world problems.
- **Lincoln Curriculum Connection-** Students will understand the problem solving process.
- **Reflective-** They will build on the ideas and creativity of others cooperatively.
- **Lincoln Curriculum Connection-** Through Austin's butterfly lesson students will benefit from significant teacher feedback and self reflection.
- **Principled-** Students learned to be principled citizens through the establishment of our essential agreements.
- **Lincoln Curriculum Connection-** Students will take on the role of a responsible citizen by creating the classroom essential agreements.

Attitudes

Attitudes are expressions of fundamental values, beliefs and feelings about learning, the environment and people.

- **Cooperation-** is being working together
- **Lincoln Curriculum Connection-** Students will learn the value of working cooperatively when designing devices and collaborating for various activities.
- **Integrity-** is being honest to yourself and others
- **Lincoln Curriculum Connection-** Students will reflect on being fair when creating classroom agreements.
- **Respect-** is being polite and kind to yourself and others
- **Lincoln Curriculum Connection-** Students will learn to respect each other through the making of the classroom agreements.

Key Concepts

Key Concepts are powerful ideas that have relevance within the subject areas but also transcend them and that students must explore and re-explore in order to develop a coherent, in-depth understanding.

- **Connection-** The understanding that we live in a world of interacting systems in which the actions of any individual element affect others.
- **Lincoln Curriculum Connection-** students will connect the identification of a problem in the environment to using their scientific and engineering skills to solve problems.
- **Responsibility -** The understanding that people make choices based on their understanding and the actions they take as a result do make a difference.
- **Lincoln Curriculum Connection-** Students will learn that establishing, respecting and following the rules is a key to cooperation and productivity.
- **Reflection-** The understanding that there are different ways of knowing. It is important to reflect on our conclusions, to consider our methods or reasoning, and the quality and reliability of the evidence we have considered.
- **Lincoln Curriculum Connection-** Students will reflect with rubrics and test their designs to reflect and modify to be efficient and effective.

Transdisciplinary Skills

These skills are capabilities that students need to demonstrate to succeed in a changing, challenging world, which may be disciplinary or transdisciplinary in nature.

- **Social skills-** accepting responsibility, respecting others, cooperating, resolving conflict, group decision making, and adopting a variety of group roles.
- **Lincoln Curriculum Connection-** Students will create rules to facilitate responsibility, cooperation, group decision making and resolving conflicts individually and as a team.
- **Thinking-** acquisition of knowledge, comprehension, application, analyzing, combining knowledge and ideas to be able to answer questions, evaluation and understanding different points of view.
- **Lincoln Curriculum Connection-** The students will design and test a model creation to solve problems.