**1st Grade Core Knowledge**

**Science**

**Introduction to Electricity**

**Summary:** In this domain, students will learn that electricity can carry energy, which brings light and heat into homes. Students will understand that static electricity happens when there is a buildup of charge due to friction. They will identify and discuss the parts of a circuit, as well as conductors and insulators, and know basic rules for electrical safety. Students will learn the major contributions of Thomas Edison to science.

**The Big Idea:** Electricity is a source of energy that has a charge. Static electricity describes a buildup of charge. Electric current describes a flow of electric charge. Additionally, science is built on the careful observations and creative contributions of individuals.

**Colorado State Standards:**

4.1.1.b. Show that electricity in circuits requires a complete loop through which current can pass.

2.1.2.c. (Social Studies) Give examples of people and events, and developments that brought important changes to the community.

**Common Core Standards**:

RI1.10 With prompting and support, read informational texts appropriately complex for grade 1.

RL1.1Ask and answer questions about key details in a text.

W1.8 With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

SL1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.

**Core Knowledge Unit:**

1. Introduction to Electricity
2. Static electricity

2. Basic parts of simple electric circuits (for example, batteries, wire, bulb or buzzer, switch)

3. Conductive and nonconductive materials

4. Safety rules for electricity

B. Science Biographies

1. Thomas Edison (invented an electric light bulb)

**Core Knowledge Language Arts:**

I. Listening and Speaking

A. Classroom Discussion

* Participate in age appropriate activities involving listening and speaking.

B. Presentation of Ideas and Information

* Follow multi-step, oral directions.
* Give simple directions.

C. Comprehension and Discussion of Read-Alouds

* Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud.
* Make personal connections to events or experiences in a read-aloud and/or make connections among several read-alouds.

D. Comprehension and Discussion of Read-Alouds – Nonfiction and Informational Text

* Generate questions and seek information from multiple sources to answer questions.
* With assistance, categorize and organize facts and information within a given topic.

II. Writing

A. Informative/Explanatory Writing

* Write about a topic, including a beginning and ending sentence, facts and examples relevant to the topic, and specific steps.

III. Language Conventions

* Apply basic spelling convention.
* Use basic capitalization and punctuation in sentences to convey meaning.

**Previous Unit:** Matter and Properties of Matter

**Prior Knowledge:**

Kindergarten

* Introduction to Magnetism (a property of matter)

First Grade

* Matter unit

**Next Unit:** Living Things and Their Environments: The Food Chain; Special Classifications of Animals

**What Students will Learn in Future Grades:**

Second Grade

* Magnetism (magnetic poles, fields, laws of magnetic attraction, poles attract, poles repel)

Fourth Grade

* Electricity (electric circuits: filament, fuse, short circuit; electromagnets)
* Science Biography: Michael Faraday

Sixth Grade

* Energy, Heat, and Energy Transfer (forms and sources of enery)

**Cross Curricular Links:**

Writing: Writing complete sentences

History: Benjamin Franklin

**Additional Resources:**

For teachers and students:

* *Kids Discover Magazines,* published by Kids Discover