

# First Grade Science Parent Copy

## SCIENCE PROCESSES

### Inquiry Processes

- A. Make purposeful observation of the natural world using appropriate senses.
- B. Generate questions based on observations.
- C. Plan and conduct simple investigations.
- D. Manipulate simple tools and data collection. (for example: hand lens, pencils, balances, non-standard objects for measurement) that aid observation.
- E. Make accurate measurements with appropriate (non-standard) units for the measurement tool.
- F. Construct simple charts from data and observations.

### Inquiry Analysis and Communication

- A. Share ideas about science through purposeful conversation in collaborative groups.
- B. Communicate and present findings of observations and investigations.
- C. Develop strategies for information gathering (ask an expert, use a book, make observations, conduct simple investigations, and watch a video).

### Reflection and Social Implications

- A. Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
- B. Recognize that science investigations are done more than one time.

## PHYSICAL SCIENCE

### Properties of Matter

#### ***Physical Properties***

- A. Demonstrate the ability to sort objects according to observable attributes such as color, shape, size, sinking or floating.

#### ***States of Matter***

- A. Demonstrate that water as a solid keeps its own shape (ice).
- B. Demonstrate that water as a liquid takes on the shape of various containers.

#### ***Magnets***

- A. Identify materials that are attracted by magnets.
- B. Observe that like poles of a magnet repel and unlike poles of a magnet attract.

## LIFE SCIENCE

### Organization of Living Things

#### ***Life Requirements***

- A. Identify the needs of animals.

#### ***Life Cycles***

- A. Describe the life cycle of animals including the following stages: egg, young, adult; egg, larva, pupa, adult.

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## Heredity

### **Observable Characteristics**

- A. Identify characteristics (for example: body coverings, beak shape, number of legs, body parts) that are passed on from parents to young.
- B. Classify young animals based on characteristics that are passed on from parents (for example: dogs/puppies, cats/kittens, cows/calves, chickens/chicks).

## EARTH SCIENCE

### Earth Systems

#### **Solar Energy**

- A. Identify the sun as the most important source of heat which warms the land, air, and water of the earth.
- B. Demonstrate the importance of sunlight and warmth in plant growth.

#### **Weather**

- A. Compare daily changes in the weather related to temperature (cold, hot, warm, cool); cloud cover (cloudy, partly cloudy, foggy); precipitation (rain, snow, hail, freezing rain); wind (breezy, windy, calm).
- B. Describe and compare weather related to the four seasons in terms of temperature, cloud cover, precipitation, and wind.
- C. Describe severe weather events.
- D. Describe precautions that should be taken for human safety during severe weather conditions (thunder storms, lightning, tornadoes, high winds, blizzards, hurricanes).

#### **Weather Measurement**

- A. Identify the tools that might be used to measure temperature, precipitation, cloud cover and wind.
- B. Observe and collect data of weather conditions over a period of time.

### Solid Earth

#### **Earth Materials**

- A. Describe how Earth materials contribute to the growth of plant and animal life.