

# Scientific Process

## Kindergarten Science

### Standard 1

**I. I can use the processes of scientific investigation: framing questions, designing investigations, conducting investigations, collecting data, and drawing conclusions.**

#### Framing Questions

- I.a  I can observe using my senses.
- I.a  I can create a hypothesis about what I observe.
- I.a  I can come up with a question that can lead to an investigation.

#### Designing Investigations

- I.b  I can think of reasons that support my ideas.
- I.b  I can identify ways to gather information to test my ideas.
- I.b  I can design fair tests.

#### Conducting Investigations

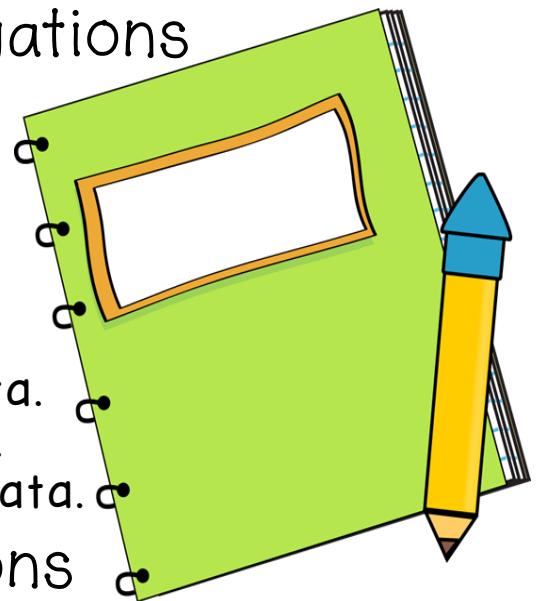
- I.c  I can observe.
- I.c  I can manipulate.
- I.c  I can measure.

#### Collecting Data

- I.d  I can decide what data to collect.
- I.d  I can decide how to organize the data.
- I.d  I can decide how to record the data.
- I.d  I can decide how to manipulate the data.

#### Drawing Conclusions

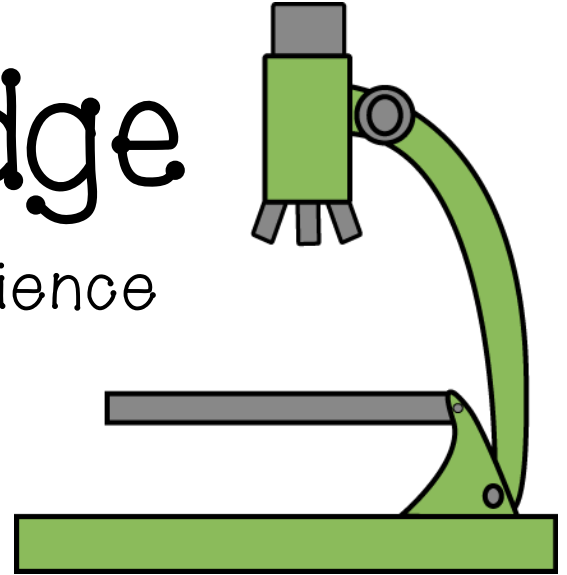
- I.e  I can analyze data.
- I.e  I can make conclusions from the data or evidence gathered.
- I.e  I can identify limitations or conclusions.
- I.e  I can identify future questions to investigate.



# Scientific Communication and Knowledge

Kindergarten Science

Standard 1



## 2. I can communicate effectively using science

- 2.a  I can develop social interactions skills with my peers.
- 2.b  I can share ideas with peers.
- 2.c  I can connect ideas with reasons or evidence.
- 2.d  I can use multiple methods to communicate reasons and evidence such as verbal communication, charts, and graphs.

## 3. I can understand the nature of science.

- 3.a  I can understand that ideas are supported by reasons.
- 3.b  I can understand that ideas in science are limited by what can be observed, measured, and verified.
- 3.c  I can understand that differences in conclusions can be settled through additional observations and investigations..
- 3.d  I can understand that communication of ideas in science is important for helping to check the reasons for ideas.

# Earth and Space

## Kindergarten Science

### Standard 2

#### **1. I can investigate non-living things.**

- 1.a  I can observe and record that big rocks break down into smaller rocks. For example boulders, rocks, pebbles, sand.
- 1.b  I can demonstrate how water and wind move non-living things.
- 1.c  I can sort, group, and classify Earth materials. For example: using

#### **2. I can observe and describe changes in day and night.**

- 2.a  I can compare and contrast light and dark in a day-night cycle and identify the changes as a pattern.
- 2.b  I can investigate, interpret, and explain to others that the sun provides heat and light to the Earth.
- 2.c  I can examine what happens when you block the sun's light by exploring shadows and temperature changes.

#### **3. I can compare changes in weather over time.**

- 3.a  I can observe and record that weather changes occur from day-to-day and weather patterns occur from season to season.
- 3.b  I can communicate ways weather can affect individuals.
- 3.c  I can describe, predict, and discuss daily weather conditions and how predicting the weather can improve our lives.



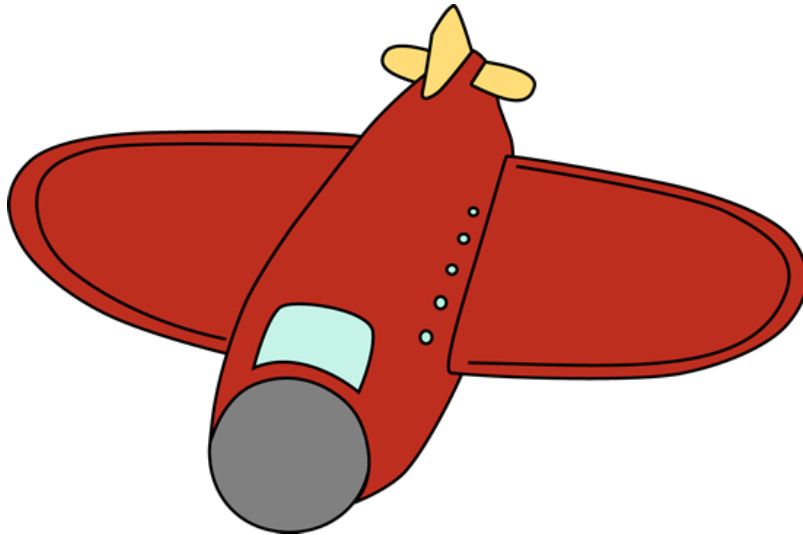
# Physical Science

## Kindergarten Science

### Standard 3

#### **1. I can identify how non-living things move.**

- 1.a  I can observe and record how objects move in different ways. For example: fast, slow, zig-zag, round and round, up and down, straight line, back and forth, slide, roll, bounce, spin, swing, float, and glide.
- 1.b  I can compare and contrast how physical properties of objects affect their movement. For example: hard,



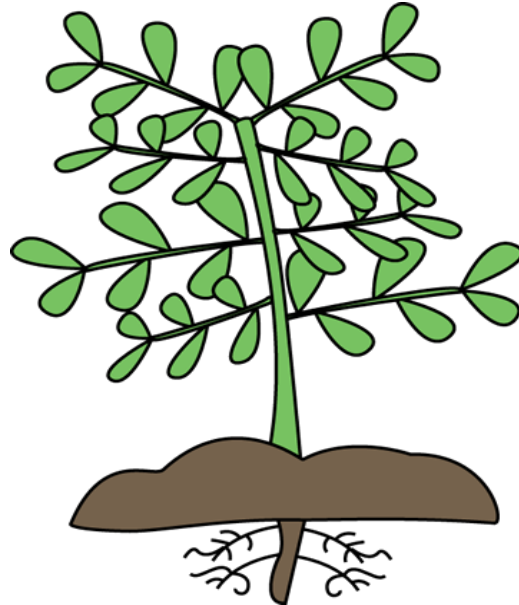
#### **2. I can describe parts of non-living things.**

- 2.a  I can describe how parts are used to build things and how things can be taken apart.
- 2.b  I can explain why things may not work the same if some of the parts are missing.

# Life Science

## Kindergarten Science

### Standard 2



#### **1. I can investigate living things.**

- 1.a  I can construct questions, give reasons, and share findings about all living things.
- 1.b  I can compare and contrast young plants and animals with their parents.
- 1.c  I can describe some changes in plants and animals that are so slow or so fast that they are hard to see. For example: seasonal changes, “fast” blooming flower, slow growth, hatching egg.

#### **2. I can describe the parts of living things.**

- 2.a  I can differentiate between the five senses and related body parts.
- 2.b  I can identify major parts of plants such as roots, stem, leaf, flower, trunk, and branches.
- 2.c  I can compare the parts of different animals, such as: skin, fur, feathers, scales, hand, wing, flipper, and fin.