

# Scientific Process

1st Grade 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

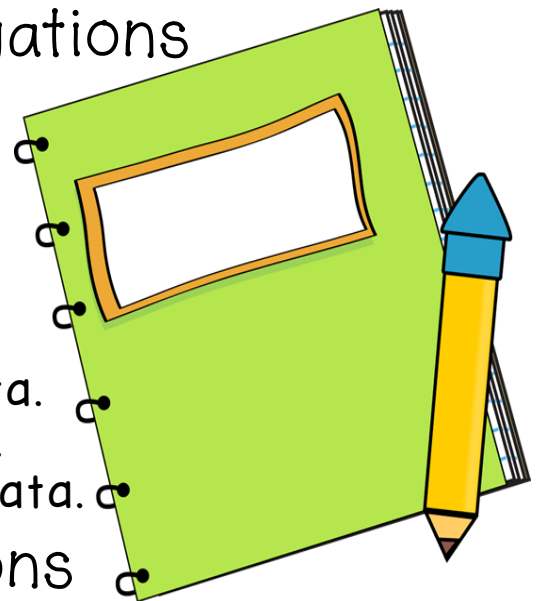
- I.c  I can observe.
- I.c  I can manipulate.
- I.c  I can measure.

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.

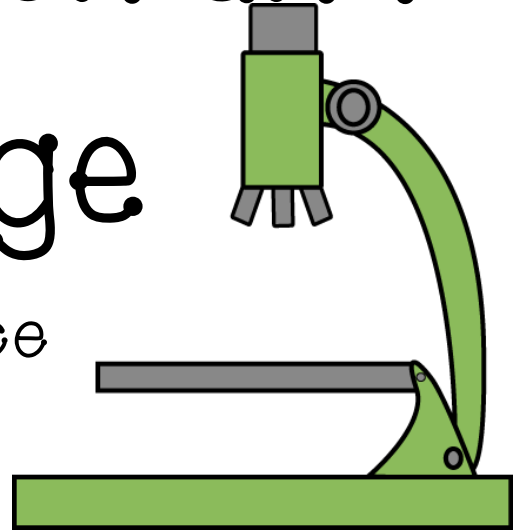
Drawing Conclusions

- 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

1st Grade Science  
Standard 1



## **2. I can communicate effectively using science language and reasoning**

- 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

1st Grade Science

Standard 2

## 1. I can investigate the natural world including rock, soil, and water.

- 1.a  I can observe, compare, describe, and sort components of soil by size, texture, and color.
- 1.b  I can identify and describe a variety of natural sources of water, including streams, lakes, and oceans.
- 1.c  I can gather evidence about the uses of rocks, soil, and water.

## 2. I can observe and describe changes and appearance of the sun and moon during daylight.

- 2.a  I can observe the sun at different times during the day and report observations to peers.
- 2.b  I can observe and chart the moon when it is visible during the day.



## 3. I can compare and contrast seasonal weather

- 3.a  I can identify characteristics of the seasons of the year.
- 3.b  I can identify characteristics of weather such as types of precipitation, sunny, windy, foggy, and cloudy.
- 3.c  I can observe and record weather information with each season.

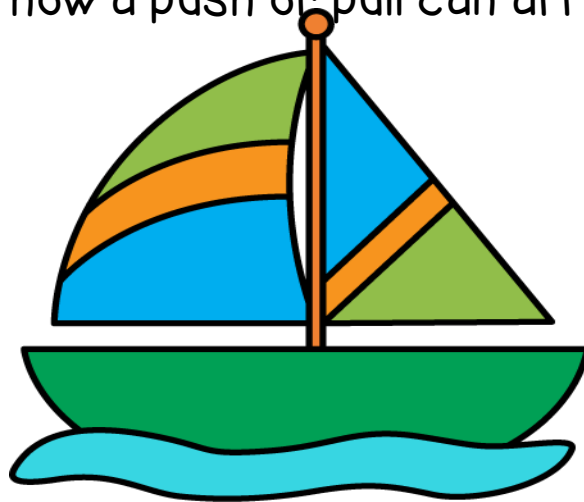
# Physical Science

1st Grade Science

Standard 3

**I can analyze changes in the movement of non-living things.**

- 1.a □ I can describe, classify, and communicate observations about the motion of objects. For example: straight, zig zag, circular, curved, back-and-forth, and fast or slow.
- 1.b □ I can compare and contrast the movement of objects using drawing, graphs, and numbers.
- 1.c □ I can explain how a push or pull can affect how an object moves.



**I can analyze objects and record their properties.**

- 2.a □ I can sort, classify, and chart objects by observable properties. For example: size, shape, color, and texture.
- 2.b □ I can predict measurable properties such as weight, temperature, and whether objects sink or float; test and record data.
- 2.c □ I can predict, identify, and describe changes in matter when heated, cooled, or mixed with water.

# Life Science

1st Grade Science

Standard 4



**1. I can communicate observations about the similarities and differences between offspring and between populations.**

1.a  I can communicate observations about plants and animals, including humans and how they resemble their parents.

1.b  I can analyze the individual similarities and differences within and across larger groups.

**2. I can understand that living things change and depend upon their environment to satisfy their basic needs.**

2.a  I can make observations about living things and their environment using the five senses.

2.b  I can identify how natural earth materials such as food, water, air, light, and space help sustain plant and animal life.

2.c  I can describe and model life cycles of living things.