

# Scientific Investigations

Write today's date on the first page of your spiral notebook. This is where you will write your Biology notes.

Next, write Warmup: and then answer the question below, writing in complete thoughts.

Warmup: Write the definition you currently hold to be correct for each term:

- law
- theory
- hypothesis

## More warm-up:

- Divide up jobs at your table. Take a different job today.
- Materials person should cut apart the numbered statements.
- Read each statement.
- Choose criteria for dividing the statements into 2 categories. Be able to explain your criteria.

# Learning Targets:

- Be able to define, explain, and apply the definitions of the following terms:
  - law
  - theory
  - hypothesis

# Laws:

- describe an event that has been observed over and over, many many times.
- describe observations that have been made independently
- may be written in the form of an equation

# Theories:

- are an explanation for some phenomenon
- are based on
  - observation
  - experimentation
  - reasoning
- supported by lots of independent evidence
- does not conflict with any existing experimental results, observations, or evidence

# Hypotheses:

- idea based on observations
- can be tested
- is potentially falsifiable
- is most useful if it allows the prediction of behavior

# Conclusion

- Revisit your statements in their piles. Discuss how you might change your piles, and your criteria.

# Summary

- Revisit your initial definitions and make needed changes.
- On a half sheet of paper, please write your name, your job, and answer these questions:
  - What was the learning target, in your own words?
  - Did you meet the learning target? Explain how you know.
  - What questions do you still have?
  - There seem to be very few laws in Biology. Why might this be? You may speculate.