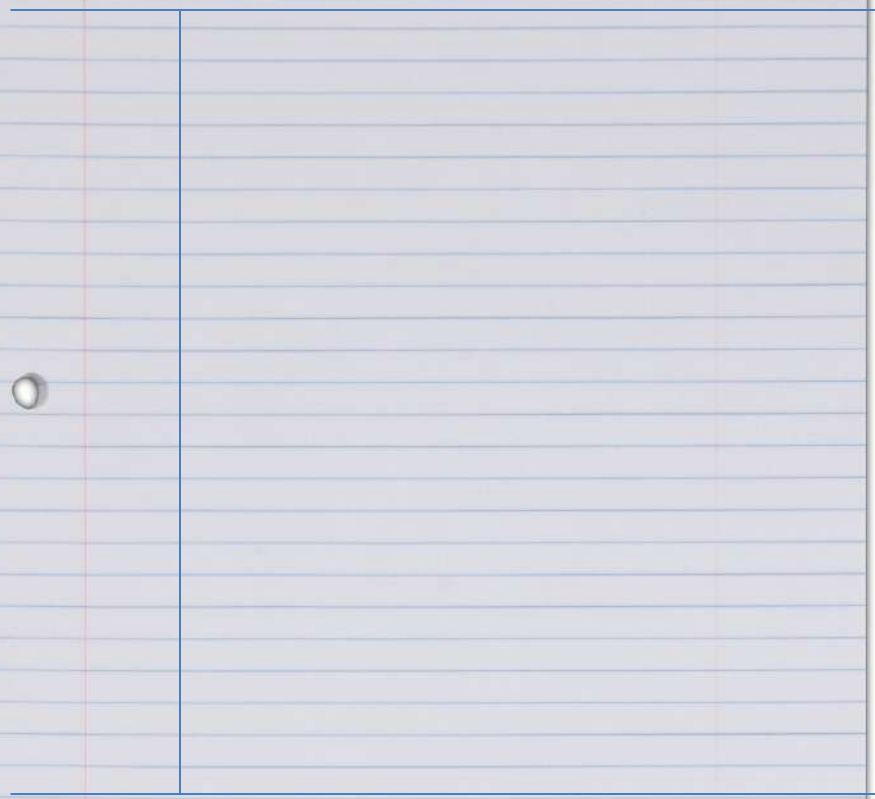
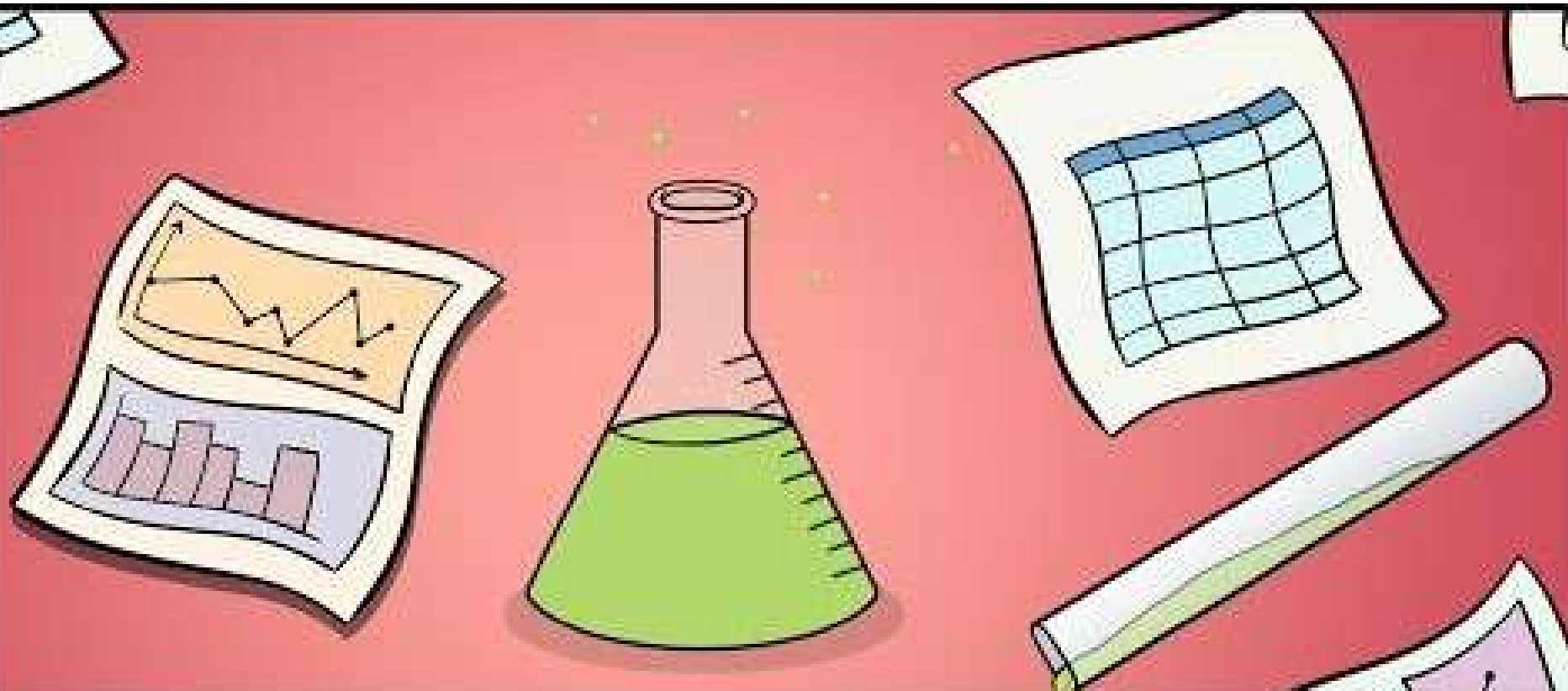


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Scientific Method as an
Ongoing Process

Scientific Process



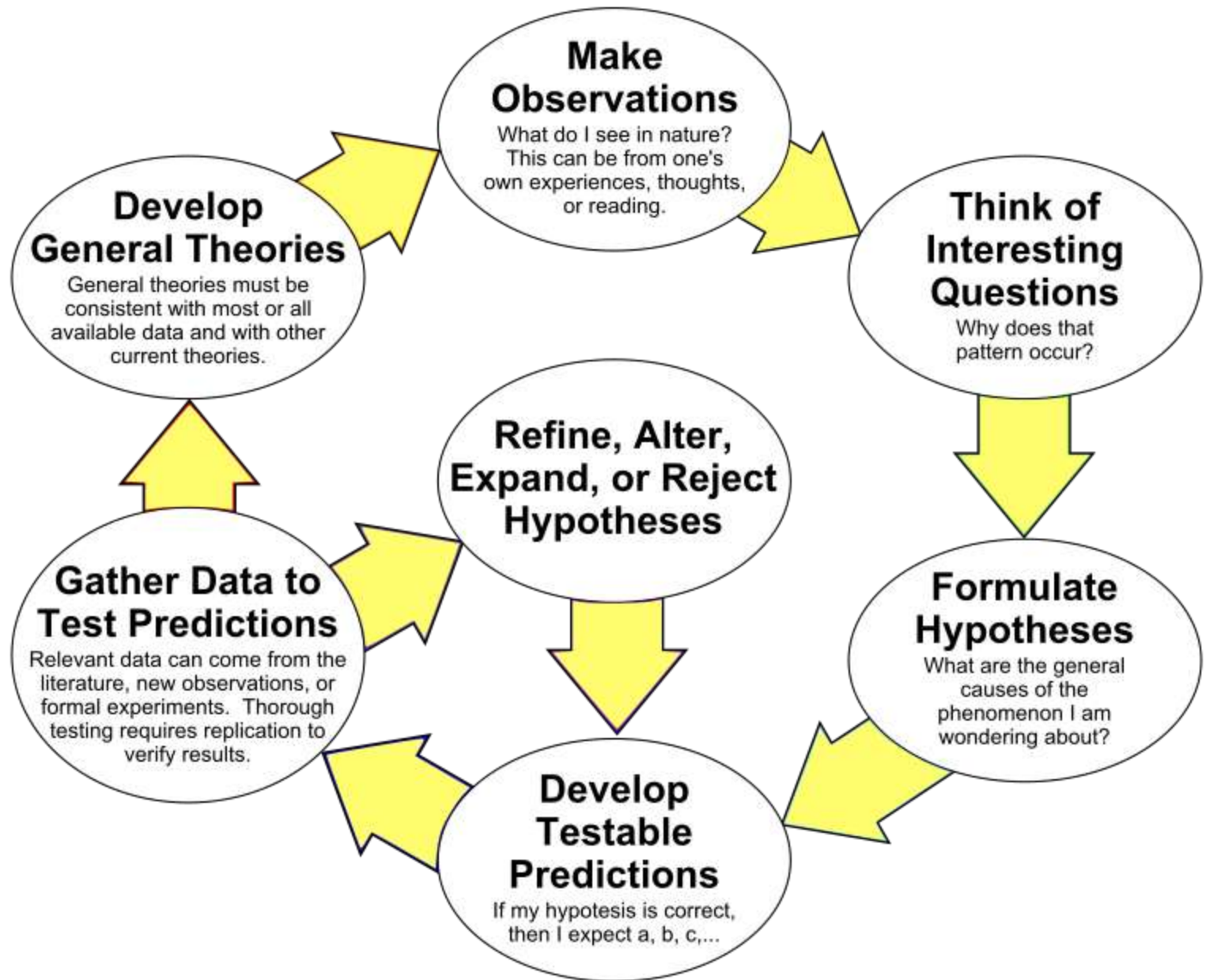


Nature of Science

with the Amoeba Sisters

NBpg. 8
Slide 2 of 6

The Scientific Method as an Ongoing Process



Scientific Process

EQ: Why is the scientific method a process?

Scientific Process/Method (7 steps)

1. Make an observation
2. Create a question based on the observation
3. Then form an testable explanation to the question, known as a hypothesis, using “If..., Then..., because...”
4. Design an experiment to test the hypothesis.
Determine variables, control, constants, and write procedures

Any scientific experiment or plan must have the ability to be duplicated for other scientist to replicate and get the same results.

5. Test the hypothesis through experimentation
Record qualitative and quantitative data
Create a Graph or a visual model
6. Make a conclusion about findings
Does your evidence *support* or *reject* your hypothesis.
Analyze data and explain with reasoning
7. Communicate the conclusion with other scientists.

READ:

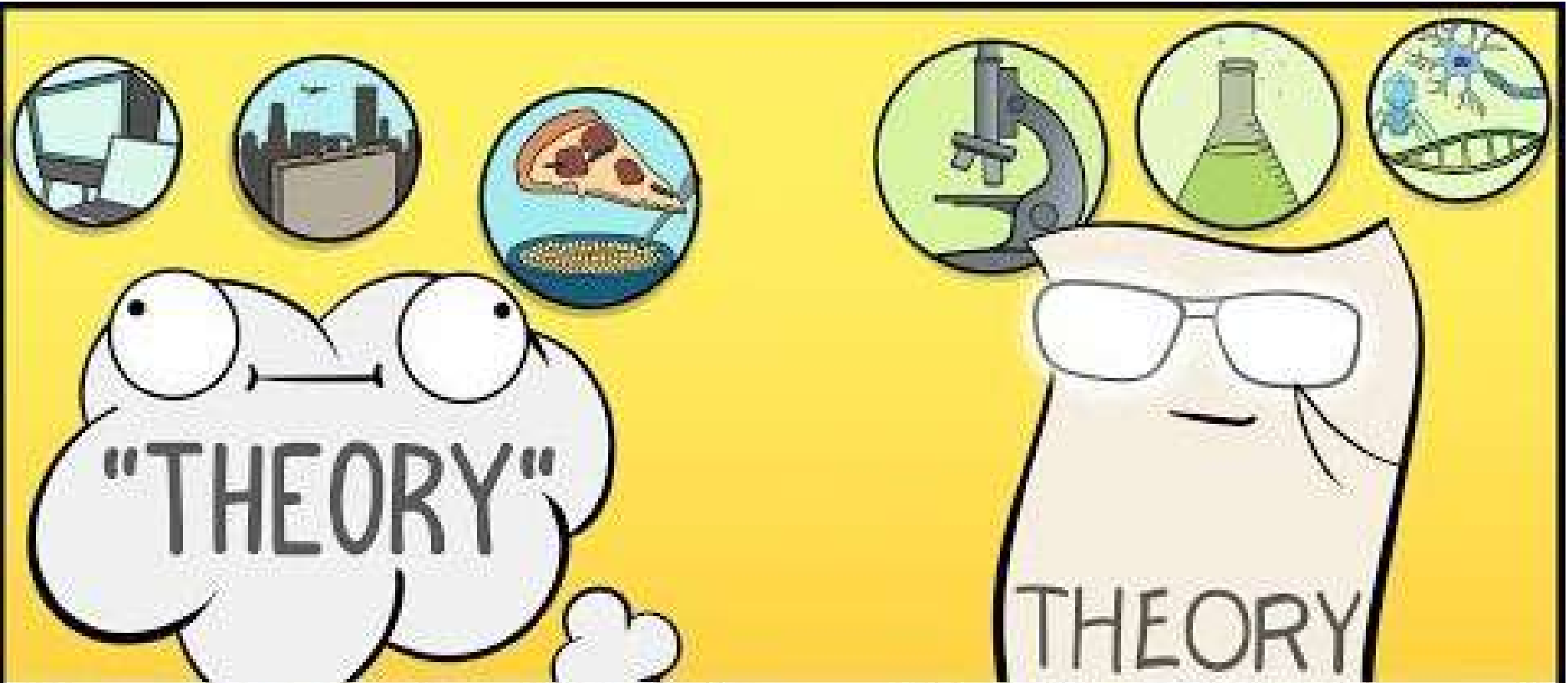
Today's scientists are connected to scientists of the past because new scientific ideas are built upon the foundations of earlier work.

Some scientific ideas are very old but still applicable today.

When many lines of research support a particular hypothesis, the hypothesis becomes a scientific theory.

Summary

(4+ complete sentences answering the EQ)



Casual & Scientific Use of "Theory" & "Law"
with the Amoeba Sisters