What is Science? **Project: _____** **WWW.INDIANAEXPEDITIONS.ORG**

Name: _____ Date: _____ Grade: _____

"Scientific Method" is a word used to describe one way scientists solve problems about the world. They make observations, ask questions, make hypotheses, test and evaluate ideas and draw conclusions. Scientists may follow different paths in an investigation to generate evidence to support ideas.

1. **Ask a Question – about something you observe:**

2. **State Your Hypothesis – a possible answer to your question that can be tested:**

If **then,**

because **.**

3. **Control Variables (many):**

Dependent Variables (what is measured):

Experimental Independent Variable (one thing changed):

4. **Materials:**

5. **Procedure – test your hypothesis with trials:**

6. **Results – interpret and analysis data:**

Class Data: Coke Type	Floating	Float & Sink?	Sinking
Diet			
Regular			

7. **State Your Conclusion:**

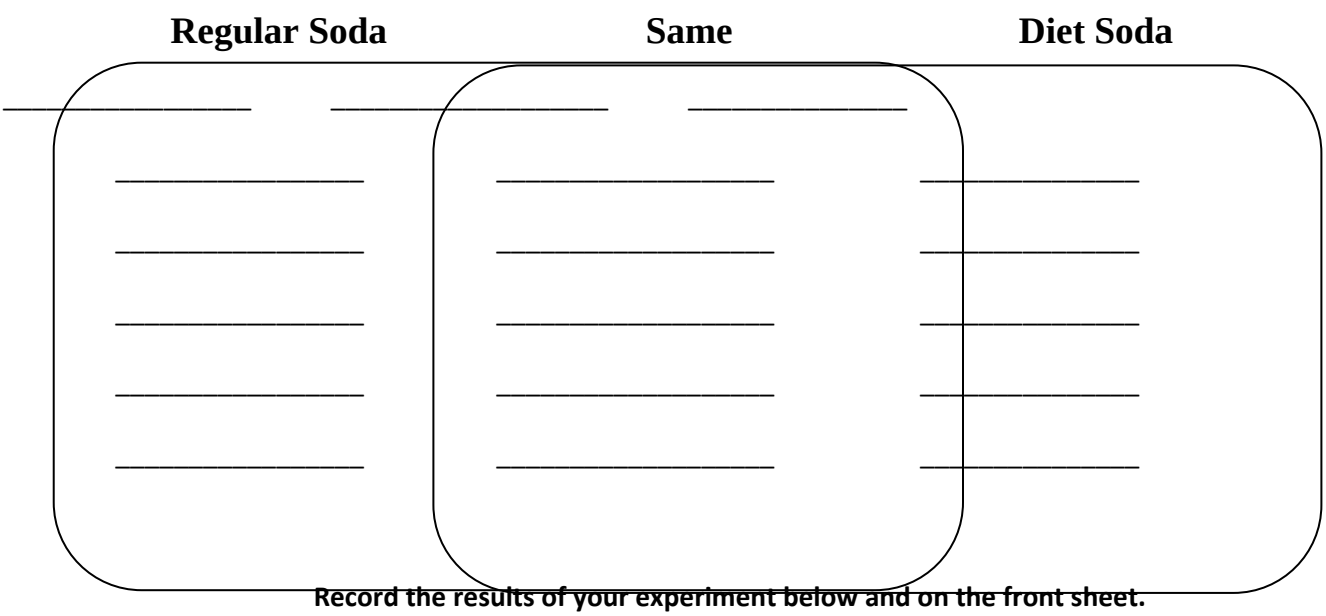
My data does – does not support my hypothesis.

Investigation Sheet **Sink or Float** **Property of Matter: Density**

Follow class instructions to investigate density – a property of matter. Complete the "Science Methods" worksheet on the other side as you work with your team.

PROCEDURE and RESULTS

Observations: **Venn Diagram**



Record the results of your experiment below and on the front sheet.

Type of Soda	Trial One		Trial Two		Trial Three		Trial Four		Trial Five	
Diet Soda	Sink	Float	Sink	Float	Sink	Float	Sink	Float	Sink	Float
Regular Soda	Sink	Float	Sink	Float	Sink	Float	Sink	Float	Sink	Float

What is the density?

Density = Mass/Volume (grams/milliliters) g/ml

Mass of diet coke = _____ g

Volume of diet coke = _____ ml

Mass of regular coke = _____ g

Volume of regular coke = _____ ml

Conclusion: Interpret (explain) the results of your experiment and state your conclusion. Did you data support your hypothesis? Be sure to include the following words in your explanation: dense or density, data, regular soda, diet soda.