



Scientific Method

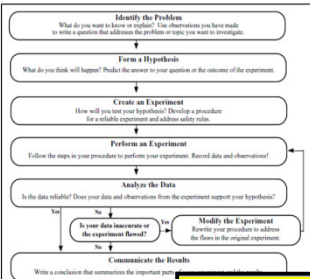
K8 Update Western IL University
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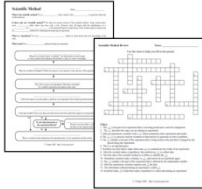
Visit the *General Science* page of the *Science Classroom* at <http://sciencespot.net/> to find all these materials!

Scientific Method

Although there are many version of the "method", all of them progress from observations and identifying a problem through testing and analysis.



Note & Review Worksheets

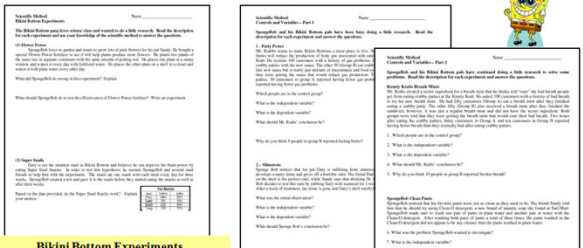


All the materials are available on the **General Science** page of the **Science Classroom** area of my website at

Section 1: Scientific Method Basics

Scientific Method – SpongeBob Lessons

These lessons provide students with the opportunity to apply what they have learned from the lesson notes and penny lab to investigate controls, independent variable, dependent variables, and reliability.

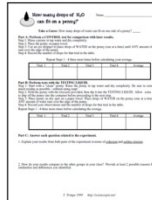


Bikini Bottom Experiments
Students analyze experiments to determine if they were done correctly and/or if the results are reliable. They are also challenged to write their own experiments using their knowledge of the scientific method.

Controls & Variables I & II
These two lessons challenge students to analyze experiments conducted by SpongeBob and his pals to identify controls and variables as well as analyze data.

Scientific Method – Variables & Reliability

Drops on a Penny Lab – Students conduct tests to see how many drops of water can fit onto a penny.



Discussion Questions:

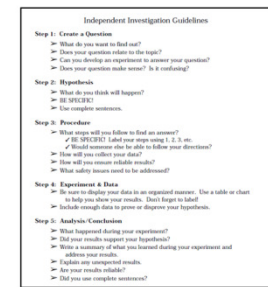
- What variables were involved?
 - Size of drops
 - Soap vs. No Soap
 - Heads vs. Tails
 - New Penny vs. Old Penny
- What was the control group?
- What were the independent and dependent variables?
- Were your results reliable?
 - Did everyone have the same results?
 - Did everyone have the same size drops?
 - Did anyone miss count?
- How could we make sure our results are reliable?
- What other tests could we do?



Download includes student worksheets, answer key, and background information.

Independent Investigations

At the end of my scientific method unit, I challenge my students to create an experiment of their own involving bouncy balls.



I always emphasize the need for safety! Each group must have my permission before attempting any part of the experiment. If a group has not addressed possible errors or safety rules, I have them rewrite the lab until it meets with my approval.

Section 2: Independent Investigations

- Other ideas ...**
- Consumer's Challenge
 - Paper Airplanes
 - Problem-Based Learning

- Old Wives' Tales
- Mythbusters

