Topic: Scientific Method Study Guide

Summary: Students will fill out a worksheet with information on what they will be tested on.

Goals & Objectives: Students will be able to explain the scientific process.

Time Length: 20 minutes

Standards: CA Investigation and Experimentation 1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations.

Materials:
Textbook, class notes, and pencil or pen.

Procedures:
Hand out this worksheet before introducing the scientific method. Students are to fill in this worksheet while you teach about the scientific method. Students then use this worksheet as a central place to study from to prepare for a test or quiz.

Accommodations:
Students with an IEP may work with a partner filling in the definitions.

Evaluation:
Students are to keep this worksheet. It is not intended to be graded.

Name: _____ Row: _____

Date:_____ Period:_____

Scientific Method Study Guide

(Write definitions or explanations)

1. What is science? _____
2. How are observations and data related? _____

_____

3. What is a hypothesis? _____

_____

4. What is an independent variable? _____

_____

5. What is a dependent variable? _____

_____

6. What are standardizing variables? _____

_____

7. What are control groups? _____

_____

8. What is a conclusion? _____

_____

9. Why is publishing findings important to the scientific method? _____

_____

10. What is a theory? _____

_____

11. Why is it important to identify errors in an experiment? _____

_____

12. How do errors affect the validity of experimental data? _____

13. Using a Venn diagram, compare and contrast a hypothesis with a theory.