

# **Scientific Method Review Unit Organizer**

## **Prepared by Ken Vetter**

### **STANDARDS FOR ACHIEVEMENT AND PERFORMANCE**

1. Making direct observations and not inferences or conclusions
2. Know the difference between direct and indirect observations
3. Explain the six steps of the scientific method
4. Use the scientific method to solve a problem?

### **ASSESSMENT:**

1. Burning candle observation lab
2. Mystery box lab
3. Scientific method worksheets
4. Cookie lab

### **CORE KNOWLEDGE SEQUENCE**

The specifics of the scientific method are not identified in the Core Knowledge Sequence. This is a review unit needed to establish a foundation for the Core Knowledge series that will be studied.

### **COLORADO STATE STANDARDS**

#### **Standard 1**

- Use appropriate tools to measure.
- Follow a plan to conduct a scientific investigation that involves Questions, hypothesis, controlling variables. Collecting data. Drawing conclusions. And making predictions.
- Communicate with reports, orally. Graphs charts spreadsheets and art.
- Establish relationships based on evidence and logical argument.

#### **Standard 6**

- Identify variables and conditions related to change.

### **HABITS OF MIND**

- Know why it is important in science to keep honest, clear and accurate records.
- Know that hypotheses are valuable, even if they turn out not to be true, if they lead to fruitful investigation.
- Know that often different explanations can be given for the same evidence and it is not always possible to tell which one is correct.