

Subject: Science

Grade: Grade 6

Topic: Scientific Method

Content: Subject Matter: Steps in the Scientific Method. Key vocabulary: hypothesis, manipulated variable, responding variable, controlled variable, conclusion, data, data table, and graphs.



<b>Goals:</b>	The student will be able to apply all the steps in the scientific method to an experiment given to them by their teacher. The student will be able to utilize science process skills (scientific method) to engage in scientific inquiry.
<b>Objectives:</b>	Given tootsie roll pops and notes from the power point presentation, the students will use the scientific method to answer the questions posed by the teacher in the tootsie roll pop lab.
<b>Materials:</b>	PowerPoint, computer, television, tootsie roll pops, lab sheets, notes for discussion and inquiry.
<b>Introduction:</b>	<p>Introduce the lesson by reviewing the steps in the scientific method. Ask for volunteers to list the steps in the scientific method. STEPS IN THE SCIENTIFIC METHOD:</p> <ol style="list-style-type: none"><li>1. Name the problem or question</li><li>2. Form an educated guess (hypothesis) of the cause of the problem and make predictions based upon the hypothesis</li><li>3. Test your hypothesis by doing an experiment or study (with proper controls)</li><li>4. Check and interpret your results</li><li>5. Report your results to the scientific community</li></ol>
<b>Development:</b>	Next, explain to students how they will set up their tootsie roll pop lab using the scientific method. Use the power point notes to explain each step to the students as we are going over their plan to implement. The students will start their experiment by placing a tootsie pop in their mouth and

	begin keeping time as they try to get to the chocolate center.
<b>Practice:</b>	The teacher will walk around the room as the students are writing the steps they will follow to complete their lab using the scientific method about "Does the color of a tootsie roll pop affect the time it takes to get to the chocolate center?"
<b>Accommodations:</b>	For students who cannot participate in this lab, they will be helping the teacher with the power point lesson and will use another student's data for their lab results.
<b>Checking For Understanding:</b>	The teacher will collect the labs and assess them for understanding of this concept. Discussion about findings.
<b>Closure:</b>	Review the steps in the scientific method with a transparency on the steps whereby students must recall the missing data to complete each step.
<b>Evaluation:</b>	The students will be assessed by the results of their labs and teacher observation as the labs are being conducted.
<b>Teacher Reflections:</b>	Did the results of the labs reflect understanding and correct use of the scientific method? Did the students enjoy this lesson? What follow up will I use?

**Author Credit:** Robin Cole