Scientific Method Lesson Plan

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| What type of lesson is this: |
| * Inquiry based
* Problem-based
 | * Project based
* Hands-on lab experience
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| What is the AFNR standard(s) this lesson relates to?2.01 Design and complete an experiment using the scientific method.2.03 Demonstrate safe and effective use of common laboratory equipment.2.04 Analyze, interpret, and report data from research. |

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| Define the objective(s):1. SWBAT design an experiment to address a scientific question.
2. SWBAT select and utilize appropriate data management and analysis techniques.
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| 3 key points/take aways: *
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| Summative Assessment:Science fair report board |

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| Student Learning Approach(es):1. Complete the Bubble Gum lab activity.
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| Materials List:For each student:* Bubble gum lab activity worksheet

For each group/pair:* Balances or scales (able to measure in grams)
* Bubble gum (one piece per group)
* Ruler or straight edge
* Pen or pencil
* Graph paper
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| Interest Approach (3 minutes):* Have students create a hypothesis on what they think will happen.
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| Lesson Content: 1. Develop a hypothesis on the effect chewing will have on the weight of the bubble gum. Record the hypothesis.
2. Weigh one piece of bubble gum. Record the weight.
3. Chew the bubble gum for 30 seconds. Using the wrapper as a weigh paper, determine the weight of the bubble gum. Record the weight.
4. Repeat step #3 until bubble gum has been chewed for 5 minutes.
5. Graph the results of your findings.
6. Compare your group’s results with those of other groups.
7. Evaluate your hypothesis.

Student Questioning/Formative Assessment:What was your hypothesis? Was it supported?What is the dependent variable in this experiment?What is the independent variable in this experiment? |

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| Reflection: |