

DIRECTIONS:

1. Study the vocabulary words and their definitions below. Memorize them! If you are confused, google some examples as well.
2. Go to the school website: WWW.MS319.ORG on the "Vacation packet" page.
3. Watch Video Clip Experiment 1 (Balloons and Pins) and read the example. You will need to watch the video more than once!
4. Then watch the Video Clips 2 and 3.
5. Find the variables for the experiments shown in Video Clips 2 and 3. Complete the other side of this paper with your findings.

Vocabulary Word	Definition	Video Clip Experiment 1 Balloon and Pins (example)
Independent Variable (IV)	<p><u>Dictionary Definition:</u> variable that is changed in the experiment</p> <p><u>Student-friendly Definition:</u> variable that "I" can change in the experiment; the cause</p>	<p>The independent variable is the amount of pins used. I know this because the scientist uses 1 pin the first time and many pins the second time. Therefore, I know that the amount of pins changed.</p>
Dependent Variable (DV)	<p><u>Dictionary Definition:</u> variable that changes as a result of a change in the independent variable.</p> <p><u>Student-friendly Definition:</u> the variable we observe in an experiment; the effect</p>	<p>The Dependent variable is whether or not the balloon popped. I know this because the scientist was observing if the balloon popped or not. Therefore, I know that the variable we observe is if the balloon popped.</p>
Control Variables	<p><u>Dictionary Definition:</u> a part of an experiment that is not changed</p> <p><u>Student-friendly Definition:</u> the variables that stay the same across all trials</p>	<p>The control variables were all of the things the scientist kept the same: the size/type of pins, the balloon, the contents of the balloon (air), the pressure on the balloon.</p>
Testable Question	<p><u>Dictionary Definition:</u> a question that is capable of being proven true or false.</p> <p><u>Student-friendly Definition:</u> How does _____ (the Independent Variable) affect _____? (the Dependent Variable)</p>	<p>I know the IV is the amount of pins and the DV is whether or not the balloon popped, Therefore, my Testable Question is: How does the amount of pins (the Independent Variable) affect if the balloon popped?</p>

		(the Dependent Variable)
<p>DIRECTIONS: Using the example from Video Clip Experiment 1 (Balloons and Pins) to guide your responses, find the Independent Variable, Dependent Variable, Control Variables, and Testable Question for Video Clip Experiment 2 (Radish Plants) and Video Clip Experiment 3 (Eggs and Alcohol). Explain the reasoning behind your answer.</p>		
Vocabulary Word	Video Clip Experiment 2 Radish Plants	Video Clip Experiment 3 Eggs and Alcohol
<p>Independent Variable (IV)</p> <p>variable that “I” can change in the experiment; the cause</p>		
<p>Dependent Variable (DV)</p> <p>the variable we observe in an experiment; the effect</p>		
<p>Control Variables</p> <p>the variables that stay the same across all trials</p>		
<p>Testable Question</p> <p>How does _____ (the Independent Variable) affect _____? (the Dependent Variable)</p>		

MS319
6th Science Vacation Packet

Name: _____

Date: _____

Class Number: _____

ADDITIONAL DIRECTIONS: *During the first week of school, you will be given a quiz to identify the IV, DV, Control Variables, and Testable Question for Video Clip Experiment 4 (Candle and Balloon).*