

Cut out the flash cards and place them on your index cards with tape or glue.

Front of  
Flash Card

Back of  
Flash Card

<b>Scientific Method</b>	A series of steps followed to solve problems and test hypotheses.
<b>Dependent Variable (DV)</b>	A variable that changes <b>BECAUSE</b> something else was changed.  It goes on the <b>y axis</b> of a graph.
<b>Hypothesis</b>	An educated guess that can be tested. This is <b>always</b> written as an <b>"IF - THEN"</b> statement.
<b>Independent Variable (IV)</b>	The experimental variable. This is the variable that <b>"I"</b> change. It is found on the x axis of a graph.
<b>Variables</b>	Something that <b>CAN</b> be changed during an experiment.
<b>Constant Variables</b>	Anything that <b>DOES NOT</b> change during an experiment. (It stays the same the whole time)
<b>Control Group</b>	A group that <b>DOES NOT</b> receive the independent variable being studied.

<p><b>Experimental Group</b></p>	<p>A group that <b>DOES</b> receive the independent variable being studied.</p>
<p><b>Observation</b></p>	<p><b>Step 1 of 7 of the Scientific Method</b></p> <p>Use your five senses to record information about the world around you. Pay attention to any patterns you see. Take note of any unusual things as well.</p>
<p><b>Form Questions</b></p>	<p><b>Step 2 of 7 of the Scientific Method</b></p> <p>Find a trend or pattern in nature. Ask yourself what would happen if something about it were changed.</p>
<p><b>Form Hypotheses</b></p>	<p><b>Step 3 of 7 of the Scientific Method</b></p> <p>Write an “if – then” statement that clearly makes a guess at what would happen in an experiment.</p>
<p><b>Run an Experiment</b></p>	<p><b>Step 4 of 7 of the Scientific Method</b></p> <p>Hold all variables constant <u>except</u> the independent. An experiment must be repeated for accuracy.</p>
<p><b>Analyze the Data</b></p>	<p><b>Step 5 of 7 of the Scientific Method</b></p> <p>Compare the data and look for trends and relationships. Make graphs to clearly show the results.</p>

<p style="text-align: center;"><b>Draw Conclusions</b></p>	<p style="text-align: center;"><b>Step 6 of 7 of the Scientific Method</b></p> <p>Go back to your hypothesis. Do you accept it as correct or do the facts not support your guess to be true? Though it will be tempting, <u>NEVER</u> change your hypothesis.</p>
<p style="text-align: center;"><b>Share the Results</b></p>	<p style="text-align: center;"><b>Step 7 of 7 of the Scientific Method</b></p> <p>Communicate your findings. Use your voice, the internet, or print to tell others what you learned.</p>
<p style="text-align: center;"><b>Bar Graph</b></p>	<p>Used to compare categories or individual sets of data.</p> <p>ex) number of calories for each menu item at McDonald's</p>
<p style="text-align: center;"><b>Line Graph</b></p>	<p>Used to compare rates of change. (Anything that changes over time)</p> <p>ex) temperatures, stocks prices, speed, acceleration</p>
<p style="text-align: center;"><b>Pie Graph</b></p>	<p>Used to compare percentages. A pie graph always equals 100%. Each slice represents a portion of the whole.</p> <p>ex) population studies, a budget</p>