

<b>Categories of thinking</b>	<b>Verbs associated with this type of thinking</b>	<b>Examples of technology activities that demonstrate this type of thinking</b>
<b>Knowledge</b> <ul style="list-style-type: none"> <li>• observation and recall of information</li> <li>• knowledge of dates, events, places</li> <li>• knowledge of major ideas</li> <li>• mastery of subject matter</li> </ul>	Find, list, count, define, tell, write describe, draw, identify, show, label, collect, examine, quote, recite, tabulate, name- who, when, where, etc.	<ul style="list-style-type: none"> <li><input type="checkbox"/> Find information on the web or in multimedia encyclopedia</li> <li><input type="checkbox"/> Cut, paste &amp; cite information from an online resource into a report or presentation</li> <li><input type="checkbox"/> Show information in report, spreadsheet, presentation, website or Timeline</li> <li><input type="checkbox"/> Enter data into spreadsheet and graph</li> <li><input type="checkbox"/> Complete Accelerated Reader Tests or other on line assessment</li> <li><input type="checkbox"/></li> </ul>
<b>Comprehension</b> <ul style="list-style-type: none"> <li>• understand information</li> <li>• grasp meaning translate knowledge into new context</li> <li>• interpret facts,</li> <li>• compare, contrast order, group</li> <li>• infer causes</li> <li>• predict consequences</li> </ul>	Summarize, demonstrate, paraphrase, generalize, illustrate, restate, interpret, predict, associate, distinguish, estimate, differentiate, discuss, extend	<ul style="list-style-type: none"> <li><input type="checkbox"/> Find information on the web or another on line resource that illustrates an idea or argument</li> <li><input type="checkbox"/> Create a report or presentation that summarizes the major points and concepts</li> <li><input type="checkbox"/> Create a spreadsheet, input data, graph and predict future data</li> <li><input type="checkbox"/> Create a concept map using inspiration that shows the relationships between facts</li> <li><input type="checkbox"/> Make a graphic organizer related to a topic that includes bulleted lists or summary information</li> <li><input type="checkbox"/> Create a story map that shows the main characters, events and message of a reading</li> <li><input type="checkbox"/> Create a cause and effect model using inspiration</li> <li><input type="checkbox"/> Make a table in MS Word that lists vocabulary words and phrases in one column, their definition or translation in a second column and insert clip art or a picture from the web that illustrates the word or phrase in a third column</li> <li><input type="checkbox"/></li> </ul>
<b>Application</b> <ul style="list-style-type: none"> <li>• use information</li> <li>• use methods, concepts, theories in new situations</li> <li>• solve problems using required skills or knowledge</li> </ul>	apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover, discuss, role-play, dramatize, interview	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use paint, or CAD program to create a drawing that illustrates a math principal</li> <li><input type="checkbox"/> Create a spreadsheet that includes formulas for calculating data based on information input by students</li> <li><input type="checkbox"/> Create a spreadsheet or Inspiration document that classifies information based on common characteristics</li> <li><input type="checkbox"/> Write an historical fictional or non-fictional play using Word Processor</li> <li><input type="checkbox"/> Interview students or people regarding an issue and demonstrate their responses in spreadsheet or multimedia presentation</li> </ul>

		<ul style="list-style-type: none"> <li><input type="checkbox"/> Insert graphed information from a spreadsheet into a report or presentation and summarize main ideas</li> <li><input type="checkbox"/></li> </ul>
<p><b>Analysis</b></p> <ul style="list-style-type: none"> <li>• seeing patterns</li> <li>• organization of parts</li> <li>• recognition of hidden meanings</li> <li>• identification of components</li> </ul>	<p>analyze, characterize, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer, debate, deduce, differentiate, relate, outline,</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use data from a spreadsheet to draw conclusions, make comparisons, generalizations or inferences about data</li> <li><input type="checkbox"/> Create a concept map using inspiration that shows the components, elements or parts of a whole system, compound or document</li> <li><input type="checkbox"/> Use digital camera to take pictures of recurring patterns or themes; Combine digital images of a recurring pattern or theme in a presentation</li> <li><input type="checkbox"/> Cut and paste text from a document or article and create a chart that lists biases or hidden meanings</li> <li><input type="checkbox"/> Create a table with direct quotes from a story in one column associated with an underlying theme or message</li> <li><input type="checkbox"/> Use Paint or digital image creation tool to compose a complex picture completely of common geometric shapes</li> <li><input type="checkbox"/> Read and summarize an on line news story</li> <li><input type="checkbox"/> Select digital images that illustrate an idea or theme and insert them into a report or presentation</li> <li><input type="checkbox"/></li> </ul>
<p><b>Synthesis</b></p> <ul style="list-style-type: none"> <li>• use old ideas to create new ones</li> <li>• generalize from given facts</li> <li>• relate knowledge from several areas</li> <li>• predict, draw conclusions</li> </ul>	<p>combine, integrate, modify, rearrange, substitute, plan, create, design, invent, what if?, compose, formulate, prepare, generalize, rewrite, integrate, propose</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Combine information from spreadsheets or graphs data in a report on a topic to support conclusions and generalizations</li> <li><input type="checkbox"/> Use Paint or CAD to draw an invention that performs a specific task</li> <li><input type="checkbox"/> Create political platform that combines policies for a broad range of issues</li> <li><input type="checkbox"/> Create a scientific theory that explains a phenomenon based on information gathered about it</li> <li><input type="checkbox"/> Rewrite a story or historical document as it would apply to modern circumstances</li> <li><input type="checkbox"/> Create a "what if" scenario by making a cause/effect graphic organizer to explain the event/non-event; use this organizer to write a history of the events as they would have been different</li> <li><input type="checkbox"/> Examine a system and create a flow chart showing how the system works; alter the system and create another flow chart that shows how it would work</li> <li><input type="checkbox"/> Examine a machine, research its development, create a timeline of it's evolution</li> <li><input type="checkbox"/> Use Paint or other image software to take parts from different machines and cerate a new (unique) machine</li> </ul>

		<p>points of view (use on line news sources or direct interviews)</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Rewrite a story or policy as it would apply to historical circumstances</li> <li><input type="checkbox"/> Create a concept map using Inspiration that identifies all of the possible applications of one idea or concept</li> <li><input type="checkbox"/></li> </ul>
<p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• compare and discriminate between ideas</li> <li>• assess value of theories, presentations</li> <li>• make choices based on reasoned argument</li> <li>• verify value of evidence</li> <li>• recognize subjectivity</li> </ul>	<p>assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, summarize, argue, justify, prove, rank</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Create a graphic organizer that shows the similarities and differences between two major characters, ideas or theories</li> <li><input type="checkbox"/> Research a topic on the web using at least two different resources; select, save &amp; cite information from each source; make a table that organizes the information from each source by the topic, compare the differences and similarities in information and bias, write a statement that explains why these sources may differ from each other</li> <li><input type="checkbox"/> Read a fiction and a non-fiction book about the same topic; create a graphic organizer or spreadsheet of some aspects that the two stories have in common; identify elements of the fictional story that are not factual, follow the writing process to rewrite a segment of the fictional story with true information</li> <li><input type="checkbox"/></li> </ul>

\* Adapted from: Bloom, B.S. (Ed.) (1956) *Taxonomy of educational objectives: The classification of educational goals: Handbook I, cognitive domain*. New York ; Toronto: Longmans, Green.