

Quellmalz Framework of Thinking Skills²

Category	Recall	Analysis	Comparison	Inference	Evaluation
Description	Remembering or recognizing key facts, definitions, concepts, etc.; repeating verbatim or paraphrasing information that has already been provided to the student	Understanding relationships between the whole and its component parts and between cause and effect; sorting and categorizing; understanding how things work and how the parts of something fit together; understanding causal relationships; getting information from charts, graphs, diagrams, and maps. Analysis is more than rote repetition; instead it involves reflectively structuring knowledge in new ways.	Explaining how things are similar and how they are different. Comparisons may be either simple or complex. Simple comparisons are based on a small number of very obvious attributes. Complex comparisons require an examination of a more extensive set of attributes of two or more things. Comparisons start with the whole/part relationships in the analysis category and carry them a step further.	Reasoning inductively or deductively. In deductive tasks, students reason from generalizations to specific instances and are asked to recognize or explain the evidence. In inductive tasks, students are given the evidence or details and are required to relate and integrate the information to come up with the generalization.	Expressing and defending an opinion. Evaluation tasks require students to judge quality, credibility, worth or practicality using established criteria and explain how the criteria are met or not met.
Sample Trigger Words	define list label name identify repeat who what when	analyze break down relationship how it works how it's used give an example	compare contrast distinguish alike different	hypothesize synthesize use evidence apply a rule generalize create what if infer predict conclude apply solve	judge evaluate best solution justify defend critique defend
Sample Questions and Tasks	Define the word Ahaiku. List the countries in Central America. In what year did the Civil War begin? Who wrote <i>Little Women</i> ? How much is $(-1)^5$? What is the capital of Illinois? With what kind of music is Scott Joplin associated? What is software? Name the basic food groups.	Sort these musical instruments by family, for example, strings, woodwinds, etc. In what sequence did the events take place? How does a solar panel work? How does the poet create a mood of sadness? Use the bar graph to determine which three flavors of ice cream are the most popular. What process was used to create this sculpture? Classify these angles as acute, right, or obtuse.	In what ways are walrus and seals alike? In what ways do they differ? Compare the topography of the eastern part of the U.S. with that of the west. Compare your life with that of a young native American living near the Plymouth colony 300 years ago. Compare the techniques of persuasion used in these two political commercials. How is the tango like the waltz? How do they differ?	What would happen if everybody stopped watching television? Predict what will be the result if you combine vinegar and baking soda. What rule applies in this situation? What is the main idea of the story? Based on your research, what can you conclude about the role of lobbyists in shaping legislation? Predict how the story will end.	Is the experiment designed so that Paul will be able to tell whether playing music influences plant growth? Why? What is the best solution to the problem of getting people to recycle? Why? Do you believe the claims made in the ad? Why or why not? Was our involvement in Viet Nam worth the costs? Why? Should the death penalty be abolished? Why?
Corresponding Bloom Categories	Knowledge Comprehension	Analysis	Analysis	Application Synthesis	Synthesis Evaluation

² Adapted from *Measuring Thinking Skills in the Classroom, Revised Edition*, by R. J. Stiggins, E. Rubel, and E. Quellmalz, National Education Assn., 1988.