

Writing Good Questions for Cornell Notes

Costa's Levels of Thinking and Questioning

The left-hand column of your Cornell Notes is for questions about the material. Once your notes are complete, you should write several questions in this column while the information is still fresh in your mind. If your teacher doesn't give you time in class to complete the questions column, do it as soon as you can after class. Writing the questions makes you think carefully about the material and gives you an easy way to study your notes.

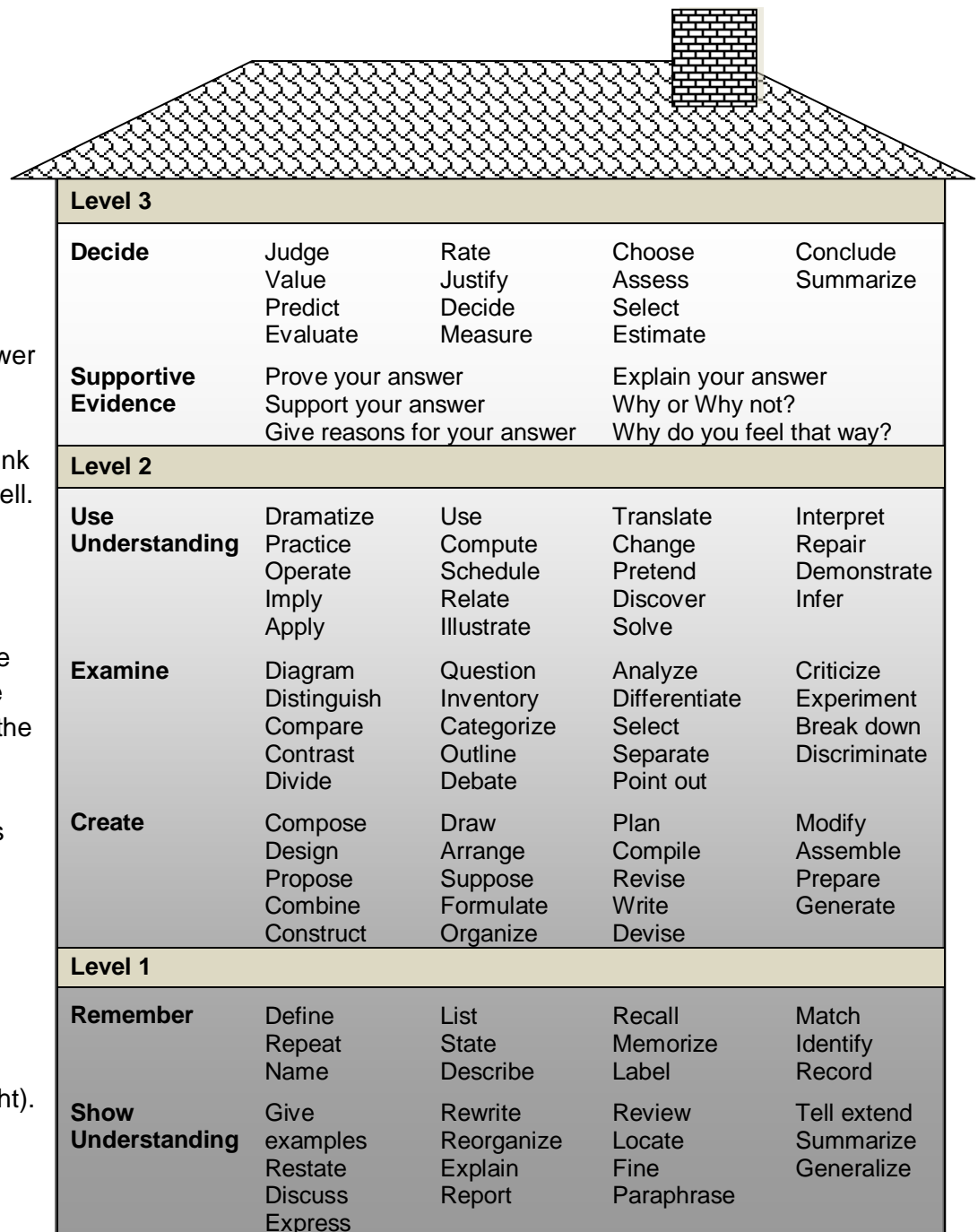
Not all questions are created equal, though! Most poorly-written questions only test your memory while better questions test how well you understand the material. Think of it like a three story house.

The 1st level (lowest level) requires one to gather or recall information. They test how well you remember information without really asking if you understand it. This information provides the basic foundation for higher-level learning.

The 2nd level requires one to process the information. These are similar to level 1 questions, but they ask about relationships between ideas. To answer these questions, memorization isn't enough: you have to think about the material as well.

The 3rd level (highest level) requires one to apply that information. These questions are the hardest to write and the hardest to answer, but they show the best understanding. To answer these questions you have to be able to make predictions, draw conclusions, and apply your knowledge.

Some typical question starters have been categorized for you (right). Be careful that you use the starters correctly.



Level 3				
Decide	Judge Value Predict Evaluate	Rate Justify Decide Measure	Choose Assess Select Estimate	Conclude Summarize
Supportive Evidence	Prove your answer Support your answer Give reasons for your answer		Explain your answer Why or Why not? Why do you feel that way?	
Level 2				
Use Understanding	Dramatize Practice Operate Imply Apply	Use Compute Schedule Relate Illustrate	Translate Change Pretend Discover Solve	Interpret Repair Demonstrate Infer
Examine	Diagram Distinguish Compare Contrast Divide	Question Inventory Categorize Outline Debate	Analyze Differentiate Select Separate Point out	Criticize Experiment Break down Discriminate
Create	Compose Design Propose Combine Construct	Draw Arrange Suppose Formulate Organize	Plan Compile Revise Write Devise	Modify Assemble Prepare Generate
Level 1				
Remember	Define Repeat Name	List State Describe	Recall Memorize Label	Match Identify Record
Show Understanding	Give examples Restate Discuss Express	Rewrite Reorganize Explain Report	Review Locate Fine Paraphrase	Tell extend Summarize Generalize

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When writing questions in your questions column, try to write more level 2 and level 3 questions than level 1. When you review your notes later, fold the page over so that only the questions are showing and answer your questions aloud. If you can't answer the question well enough, peek at your right-hand column and try again.

Level 1	Level 2	Level 3
<ul style="list-style-type: none"> • What information is given? • What are you being asked to find? • What formula would you use in this problem? • What does ____ mean? • What is the definition of <i>hypotonic</i>? • What is the formula for ____? • List the steps of ____. • List the stages of ____. • List four types of organic molecules. • Name the... • Name the seven characteristics of life. • Where did...? • What is...? • When did...? • Describe in your own words what ____ means. • What science concepts does this problem connect to? • Draw a diagram of... • Illustrate how ____ works. 	<ul style="list-style-type: none"> • What additional information is needed to solve this problem? • Can you see other relationships that will help you find this information? • I am a singled-stranded nucleic acid containing Uracil. Am I DNA or RNA? • Put these steps of cell division in the proper order... • Categorize these solutions as acids, bases, or neutral... • How can you put your data in graphic form? • How would you change your procedures to get better results? • What method would you use to...? • Compare ____ to ____. • Compare and contrast <i>prokaryotes</i> and <i>eukaryotes</i>. • Which errors most affected your results? • What were some sources of variability? • How do your conclusions support your hypothesis? • What prior research/formulas support your conclusions? • How else could you account for...? • Explain the concept of... • Give me an example of... 	<ul style="list-style-type: none"> • Design a lab to show... • Predict what will happen to ____ as ____ is changed. • Predict what would happen if I put a cell in a <i>hypotonic</i> solution. • Using a science principle, how can we find... • Describe the events that might occur if... • Design a scenario for... • Pretend you are... • What would the world be like if...? • Evaluate this meal for nutritional content... • How does a frame-shift mutation change the resulting protein? • What would happen to ____ if ____ (variable) were increased/decreased? • How would repeated trials affect your data? • Modify this experiment so that it has a control group... • What significance is this experiment to the subject you're learning? • What type of evidence is more compelling to you? • Do you feel ____ experiment is ethical? • Are your results biased?

