

Generalized Rubric for Decision-Making Task

| | Level 1 | Level 2 | Level 3 | Level 4 |
|--|--|---|---|--|
| Did the student select appropriate and important alternatives to be considered? | The student selects alternatives that do not address the real issue and present no worthwhile challenge. | The student does not present clear alternatives, or selects alternatives that are not completely appropriate to the task. | The student clearly identifies alternatives that are appropriate to the task and that present a genuine decision making task. | The alternatives presented are clearly articulated, appropriate to the task, and present a meaningful decision-making challenge. |
| Did the student select important and appropriate criteria with which to assess the identified alternatives? Was the student accurate in her assessment of how important the identified criteria are to the decision? | The student does not specify any criteria appropriate for the selected alternatives or of importance to the decision. | The student correctly identifies the principle criteria by which the identified alternatives will be assessed. Some criteria might be omitted, or included criteria might not be important factors for consideration or entirely appropriate for the decision task. | The student clearly identifies the criteria by which the identified alternatives will be assessed. With no significant exceptions, the criteria are appropriate to the alternatives and important to the decision task. | The student clearly and completely identifies the criteria by which the identified alternatives will be assessed. The criteria are presented in detail and reflect an unusually thorough understanding and concern for the ramifications of the decision. |
| Was the student accurate in their assessment of the extent to which the alternatives possess the identified characteristics? | The student does not use all necessary criteria for evaluating the decision alternatives. The criteria the student uses are incorrectly matched to the alternatives. | The student's assessment of the alternatives does not completely address all the criteria for evaluation; or, the student applies all appropriate criteria to the alternatives but is not completely accurate in assessing how well the criteria have been met. | The student presents an accurate assessment of the extent to which the alternatives possess the identified criteria. | The student provides a thorough, fully developed assessment of each alternative based upon the criteria. In addition, the student also provides comparison and contrast of the alternatives according to the extent each meet the criteria. |
| Did the final selection adequately meet decision criteria and answer the initial decision question? | The student makes a selection that does not appear reasonable, or cannot be justified by the student's evaluation of the alternatives. | The student selects an alternative that does not entirely conform to the student's assessment of the alternatives. | The student successfully answers the decision question by selecting an alternative that meets or exceeds established criteria. | The student selects an alternative consistent with its rating on the criteria. The selection represents a well-supported answer to the initial decision question. In addition, the student provides a useful discussion of problems that arose during the selection process. |

SCORING RUBRIC FOR DECISION-MAKING TASK

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|--|---|--|---|
| Selection of appropriate and important alternatives to be considered | Alternatives <input type="checkbox"/> do NOT address the real issue <input type="checkbox"/> present no worthwhile challenge | Alternatives are <input type="checkbox"/> NOT clear <input type="checkbox"/> NOT completely appropriate to the task | Alternatives are <input type="checkbox"/> appropriate to the task <input type="checkbox"/> present a genuine decision making task | Alternatives are <input type="checkbox"/> clearly articulated <input type="checkbox"/> appropriate to the task <input type="checkbox"/> present a meaningful decision-making challenge |
| Selection of important and appropriate criteria with which to assess the identified alternatives Accuracy of assessment of how important the identified criteria are to the decision | Criteria by which alternatives will be assessed <input type="checkbox"/> Are NOT specified <input type="checkbox"/> Are NOT appropriate <input type="checkbox"/> Are NOT of importance to the decision | Criteria by which alternatives will be assessed <input type="checkbox"/> Are correctly identified <input type="checkbox"/> Might be omitted <input type="checkbox"/> Might NOT be important factors for consideration <input type="checkbox"/> Might NOT be entirely appropriate for the decision task | Criteria by which alternatives will be assessed are <input type="checkbox"/> Clearly identified <input type="checkbox"/> (With no significant exceptions) Appropriate to the alternatives <input type="checkbox"/> (With no significant exceptions) Important to the decision task | Criteria by which alternatives will be assessed are <input type="checkbox"/> Clearly and completely identified <input type="checkbox"/> Presented in detail <input type="checkbox"/> Reflect an unusually thorough understanding and concern for the ramifications of the decision |
| Accuracy of assessment of the extent to which the alternatives possess the identified characteristics | Assessment of alternatives <input type="checkbox"/> Is NOT based on all necessary criteria <input type="checkbox"/> Is NOT correctly matched to the criteria | Assessment of alternatives <input type="checkbox"/> Does NOT completely address all the criteria for evaluation <input type="checkbox"/> Is NOT completely accurate | Assessment of alternatives <input type="checkbox"/> Is accurate | Assessment of alternatives <input type="checkbox"/> Is thorough <input type="checkbox"/> Is fully-developed <input type="checkbox"/> Is based upon the criteria <input type="checkbox"/> Contains a comparison and contrast |
| Adequacy of final selection in meeting decision criteria and answering the initial decision question | Final selection <input type="checkbox"/> Does NOT appear reasonable <input type="checkbox"/> CANNOT be justified by the student's evaluation of the alternatives | Final selection <input type="checkbox"/> Does not entirely conform to the student's assessment of the alternatives | Final selection <input type="checkbox"/> Successfully answers decision question <input type="checkbox"/> Is based on alternatives that meet or exceed established criteria | Final selection <input type="checkbox"/> Is consistent with its rating on the criteria <input type="checkbox"/> Represents a well-supported answer to the initial decision question <input type="checkbox"/> Includes a useful discussion of problems that arose during the process |

Complex Thinking Standards - Reasoning Strategy 1: Comparison

Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|--|--|--|--|
| I select useful and important items to compare. | I select items that are not useful or important or that do not work for the comparison. | I select items that will allow me to do a comparison, but the items may not be very useful or important and may even cause some problems as I do the comparison. | I select items that are useful and important and help me achieve the goal for the comparison. | I select items that are useful and important and help me make interesting comparisons; I select items that might be different from what other people select because I want to see things in new ways as a result of doing this comparison. |
| I select useful and important characteristics on which to compare the selected items. | I select unimportant characteristics that are not at all useful in the comparison; or I select items that I cannot even compare. | I select some characteristics that will help me do some comparing of items, but a few of the characteristics are not very useful in the comparison. | I select characteristics that are useful and important and will help me think about items in interesting ways. | I select characteristics that focus on the most useful and important information about the items being compared. The characteristics will help me see the items in new and unusual ways. |
| I accurately describe how the items are the same and different for each characteristic. | I make many significant errors when I try to describe how the items are the same and different for each of the characteristics. | I make some errors when I describe how the items are the same and different for each of the characteristics. | I accurately describe important ways the items are the same and different for each of the characteristics. | I accurately describe the important ways the items are the same and different for each of the characteristics; I also explain interesting ideas and conclusions that occur to me as a result of the comparison. |

Complex Thinking Standards - Reasoning Strategy 2: Classification

Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|--|---|--|---|--|
| I select important items to classify. | I select items that are unimportant or have nothing to do with the reason I am doing the classification. | I select items that are not very important or that will be simple to quickly put in categories. | I select items that are important and make me think when I classify them. | I select important and interesting items to classify; they may even be difficult to classify and may force me to think about things in new ways. |
| I create useful categories for classifying the items. | I create categories that use only unimportant characteristics of the items. | I create categories that allow me to classify but don't really make me think about the important characteristics of the items. | I create categories that make me think about important characteristics of the items. | I create categories that make me think about the items in interesting and different ways. |
| I describe accurate and complete rules for deciding which items go in each category. | I list rules, but they do not describe the categories. | I describe the rules for deciding which items go in each category, but I leave things out and create confusion, or I include information about the categories that does not really help put the items in correct categories. | I clearly describe rules for deciding which items go in each category, wording my descriptions in ways that eliminate any confusion about where to place the items. | I clearly and completely describe the rules for deciding which items go in each category; I describe these rules in a way that forces me to think about the items in interesting and unusual ways. |
| I accurately place the items in the categories. | I make many errors when placing items in categories and do not describe why I placed them in specific categories. | I make some mistakes when I place items in categories and, even when it would be helpful, I don't describe why an item fits in a category. | I place each item in the correct category and, when I need to, I describe why it fits in the category. | I place each item in the correct category and describe why it fits in that category; I also describe interesting ideas and thoughts that occur to me while I am doing this. |

Complex Thinking Standards - Reasoning Strategy 3: Induction

Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|--|---|--|---|---|
| I select and describe specific pieces of information to use in making general conclusions or statements. | I select unimportant pieces of information. | I select some specific pieces of information that are not really important to use in making and supporting general conclusions or statements or I miss important pieces of information related to the conclusions or statements. | I accurately select and describe all important pieces of information to use in making and supporting general conclusions or statements. | I clearly and accurately select and describe all important pieces of information to use in making and supporting general conclusions or statements; I am careful and think in new and interesting ways when I select and use the specific pieces of information. |
| I think about the information and explain interesting ideas or meanings I find in it. | I explain ideas or meanings I find in the information, but they are inaccurate, don't make sense, or do not really relate to the information. | I explain ideas or meanings I find in the information, but some of them are inaccurate because I did not really understand the information. | I explain interesting ideas or meanings I find in the information; the ideas or meanings are generally accurate and important. | I explain interesting ideas or meanings I find in the information; the ideas or meanings I find show that I have thought a lot about the information and used all my knowledge to find these interesting ideas or meanings. |
| I make general conclusions from the specific pieces of information or observations. | I make conclusions that don't make sense, and I can't really describe how I used the information and observations. | I make conclusions from the specific pieces of information or observations and describe how I used the information, but some conclusions and descriptions don't make sense. | I make general conclusions from the specific pieces of information or observations; the conclusions generally show I have used the information or observations in a way that makes sense. | I make clear, general conclusions from the specific pieces of information or observations; the conclusions make sense and show that I understand how to think about and combine specific information and observations to come to interesting general conclusions. |

Complex Thinking Standards - Reasoning Strategy 4: Deduction

Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|---|
| I select an important and useful general statement in information I am analyzing. | I select a general statement, but it is not related to the information or adds nothing to the understanding of the information. | I select an important general statement that is related to the information I am analyzing, but does not really help to explain it. | I select an important general statement that helps to explain the information I am analyzing. | I select an important general statement in the information that adds to the understanding of the information in a way that goes beyond the obvious meanings others see. |
| I accurately explain the meaning of the general statement. | I explain the meaning of the general statement, but make major errors. | I explain the meaning of the general statement, but make some errors. | I accurately and clearly explain the meaning of the general statement. | I accurately and clearly explain the meaning of the general statement and show how it can be used in ways that may not be obvious to others. |
| I accurately explain how the general statement applies to other information. | I explain some ways of applying the statement, but they do not make sense or do not relate to the subject. | I explain some important ways of applying the statement to other information, but I make some errors or include ways of applying the information that are not useful. | I explain, with minor errors, how the general statement applies to other information; the explanation provides a useful way of thinking about the subject that is being analyzed. | I accurately explain how the general statement applies to other information. I find ways to accurately apply it that other people generally miss and show how applying it in these new ways will add to the understanding of the entire subject that is being analyzed. |

Complex Thinking Standards - Reasoning Strategy 5: Error Analysis

Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|--|--|--|--|---|
| I find and describe major errors in information I read or hear, or when watching someone do something. | I don't find important errors or I frequently describe errors that I find out are not really errors. | I miss some important errors when I am analyzing information or a process, or sometimes I describe errors and find out they are not really errors. | I accurately find and describe all important errors in the information or process I am analyzing; I describe each and tell why it is an error. | I accurately find and describe all errors in the information or process I am analyzing; I clearly describe each one and tell why it is clearly an error; I even find minor errors that many people miss. |
| I accurately describe how the errors affect the information or process I am analyzing. | I do not accurately describe the effects or problems the errors cause in the information or process, or I describe effects or problems that do not really exist. | I describe how the errors affect or cause problems in the information or process but I leave out some important effects or problems, or my description is not entirely accurate. | I accurately describe, with some details, how the errors affect or cause problems in the information or process. | I accurately and completely describe how the errors affect or cause problems in the information or process; I explain the major effects or problems that are easy to see, but I also explain little things that could happen because of the error. |
| I accurately describe how to correct the errors. | My ideas for correcting the errors are not workable or would not take care of the effects or problems the errors cause. | I describe some ways of correcting the errors but I my ideas sometimes do not take care of the effects or problems the errors cause. | I describe workable ways of correcting the errors; my ideas take care of the major effects or problems the errors cause. | I describe workable and creative ways of correcting the errors so all possible effects or problems will be taken care of; my ideas for correcting the errors show that I have used my knowledge about the information and process and have thought about more than one workable way of correcting the errors. |

Complex Thinking Standards - Reasoning Strategy 6: Constructing Support

Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|--|--|---|---|
| I accurately make a statement that needs to be supported with more information. | I make a statement that needs no support. | I make a statement that needs to be supported with more information, but sometimes I add too much to the statement and confuse it with other types of information. | I accurately make a clear statement that needs to be supported with more information. | I accurately and clearly make a statement that needs to be supported with more information; this statement may have been mistaken by others as a fact, but I recognize that it needs support. |
| I provide enough information to support the statement. | I don't present information that supports the statement. | I present some important information that supports the statement, but I don't provide enough information or I leave out necessary information. | I clearly and accurately present all the important information that strongly supports the statement. | I clearly and accurately present all the available information that strongly supports the statement. I describe how important each piece of information is to the support of the statement. I also explain what information is not available and what problems the missing information might cause. |
| I explain situations where the statement does not apply. | I don't explain situations where the statement does not apply. | I explain some situations where the statement does not apply, but I leave out important points or do not explain them accurately. | I accurately explain situations where the statement does not apply. My explanation helps support the statement. | I accurately explain situations where the statement does not apply. My explanation shows that I have carefully thought about the statement and understand where it does and does not apply. It also helps support the statement and provides a way of understanding the statement from a different point of view. |

Complex Thinking Standards - Reasoning Strategy 7: Abstracting Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|--|--|---|--|
| I select a significant situation or meaningful information that has within it an identifiable pattern. I identify that pattern and then compare it with the relationships or patterns in another situation or in other information. | I select information or a situation that is not very important or useful. It also does not really have a general pattern that could be compared to other specific information or situations. | I select information or a situation that has a general pattern that could be compared to other information or situations, but the information or situation I select is not really very useful or important. | I select a significant situation or meaningful information that has within it a general pattern that could be compared to patterns in other situations or in other information. | I select a significant situation or meaningful information that has within it an interesting general pattern that could be compared to a pattern in other situations or in other information; the information or situation I select is not something others typically would choose, but I explain how I see it in a different way and why I think it would be a good topic for abstracting. |
| I find a general pattern in the specific situation or information. | I don't find a general pattern that is accurate and includes important ideas. | I find a general pattern in the specific situation or information that includes some important ideas, but it is not completely accurate or it leaves out some important parts of the situations or information. | I find a general pattern in the specific situation or information that is accurate, includes the important ideas, and could be used to compare patterns in other specific situations or information. | I find a general pattern that includes the important parts of the situation or information and also helps show the interesting ideas and meanings in the situation or information. The general relationship or pattern will clearly help me compare patterns in other specific situations or information. |
| I accurately explain how the general pattern in the specific situation or information is the same as the general pattern in another situation or set of information. | I find a topic on which people disagree, but I do not find or describe any specific areas of disagreement. | I select a second situation or set of information that is only a little bit similar to the first situation or set of information. The two situations or sets of information don't really have matching patterns. | I select a second situation or set of information and describe how it has a pattern that is the same as the pattern in my first situation or set of information. The second situation or set of information is important, and my comparison of the two is useful and interesting. | I select another situation or set of information and describe how it has a pattern that is the same as the pattern in the first situation or set of information. The second situation or set of information is interesting and isn't what most people would typically select. My comparison of the two situations or sets of information brings out many ideas that help show new and interesting ways of looking at either situations or sets of information. |

Complex Thinking Standards - Reasoning Strategy 8: Analyzing Perspectives

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|--|---|---|--|
| I find and describe a topic on which people disagree and explain the areas of disagreement. | I find a topic on which people disagree, but I do not find or describe any specific areas of disagreement. | I find a topic on which people disagree, but I make errors in explaining the specific areas of disagreement. | I find and accurately describe a topic on which people disagree and explain the areas of disagreement. | I find and accurately describe a topic on which people disagree. I explain the obvious and specific areas of disagreement, but I also find and explain less obvious causes of disagreement, but I also find and explain less obvious causes of disagreement. |
| I state an opinion on the topic and explain the reasons for that opinion. | I do not state a clear opinion. | I clearly state an opinion on the topic, but I do not clearly explain the reasons for that opinion. | I clearly state an opinion on the topic and explain some of the important reasons for that opinion. I do not explain the thinking that might lead to the opinion. | I clearly state an opinion on the topic and explain the reasons for that opinion. I also describe the thinking that might lead to the opinion, and I explain the strengths, weaknesses, and errors in that thinking. |
| I state an opinion different from the first one and explain the reasons for that opinion. | I do not state a clear opinion different from the first one. | I clearly state an opinion different from the first one, but I do not clearly explain the reasons for that opinion. | I clearly state an opinion different from the first one and explain the important reasons a person might have for that opinion. I do not describe the thinking that would lead someone to that opinion. | I clearly state a detailed opinion different from the first one and explain the important reasons for that opinion. I describe the thinking that might lead to that opinion, and I explain the strengths, weaknesses, and errors in that thinking. |

Complex Thinking Standards - Reasoning Strategy 9: Decision Making

Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|--|--|---|---|
| I identify important and useful choices for my decision-making tasks. | I identify choices that are not at all important or useful for the decision-making task. | I identify some choices that are important and useful to the decision-making task, but I also identify some that are not very important or useful. | I identify and describe the most important and useful choices for my decision-making task. | I identify all the important and useful choices for my decision-making task and describe them with details. |
| I identify important criteria to use when I evaluate my choices. | I identify criteria that are unimportant or unrelated to the decision-making task. | I identify some important criteria to use when I evaluate my choices, but I also identify some criteria that are not very important or I leave out some very important criteria. | I identify and describe important criteria to use when I evaluate my choices. | I identify and describe important criteria to use when I evaluate my choices. My criteria show that I have thought about and understand the decision and have carefully considered each criterion before selecting it. |
| I accurately describe how each choice relates to each criterion. | I do not describe how the choices relate to the criteria or I make many errors when I describe how the choices relate to the criteria. | I do not describe how each choice relates to each criterion or I make many errors when I describe how the choices relate to the criteria. | I accurately describe how each choice relates to each criterion. | I accurately describe, with details, how each choice relates to each criterion. For some of the criteria, I even compare the choices to clearly show the differences among the choices. |
| I select the choice that meets my criteria and answers the question that created the need for a decision. | I select a choice without giving much thought to how it matches the criteria, or I cannot explain how my choice matches the criteria. | I select a choice that matches some criteria, but it may not be the best choice because I ignored or did not see a better match. | I select the choice that best matches my criteria. The choice provides a satisfactory answer to the question that originally created the need for a decision. | I select a choice after carefully considering how the choices match the criteria. I explain why my choice effectively answers the question that originally created the need for a decision. I also explain any important and interesting ideas that occurred to me or other things I learned during the process of making the decision. |

**Complex Thinking Standards - Reasoning Strategy 10:
Investigation (Definitional, Historical, and Projective)
Student Rubric**

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|--|---|--|
| I find and explain the information that everyone agrees is clear or is known about the concept I am defining (definitional investigation), the past event I am describing (historical investigation), or the future event I am predicting (projective investigation). | I find little or no information that is already clear or known about the topic. | I find some important information that is already clear or known about the topic, but I miss important information or inaccurately describe my topic. | I find and accurately describe the important information that is already clear or known about the topic I am investigating. | I find and accurately describe as much as possible about what is already clear or known about the topic. I check my information carefully to make sure it is correct. I even find information that very few people know and show why it is important to my topic. |
| I find and explain the things about the concept I am defining (definitional investigation), the past event I am describing (historical investigation), or the future event I am predicting (projective investigation) that cause people to be confused, unsure, or in disagreement. | I do not find any important things about the topic that cause people to be confused, unsure, or in disagreement. | I find and explain some of the things about the topic that cause people to be confused, unsure, or in disagreement, but I leave out some important ideas. | I find and explain the most important things about the topic that cause people to be confused, unsure, or in disagreement. | I find and explain, with details, all the important things about the topic that cause people to be confused, unsure, or in disagreement. I even find things that other people often do not see. |
| I suggest and defend a way of clearing up or settling the things that cause people to be confused, unsure, or in disagreement. | I suggest an explanation of the topic that does not clear up or settle things, that I cannot defend, or that does not make sense. | I suggest an explanation of the topic that tries to clear up or settle the things that cause people to be confused, unsure, or in disagreement, but I do not defend it very well or I use some inaccurate information. | I suggest and defend an explanation of the topic that clears up or settles the things that cause people to be confused, unsure, or in disagreement. My explanation uses information accurately and makes sense. | I suggest and defend a detailed explanation of the topic that clears up or settles the things that cause people to be confused, unsure, or in disagreement. My explanation makes sense and shows that I understand the problem and have thought about it carefully; it gives people a new way of looking at the topic. |

Complex Thinking Standards - Reasoning Strategy 11: Problem Solving

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|--|--|--|---|
| I accurately recognize and describe the limits or barriers that make it difficult for me to achieve my goal. | I describe what I see as limits or barriers but do not recognize or describe any of the major limits or barriers that make it difficult for me to achieve my goal. | I recognize and describe some of the major limits or barriers that make it difficult for me to achieve my goal, but I miss some important ones or inaccurately describe them. | I accurately recognize and describe the major limits or barriers that make it difficult for me to achieve my goal. | I accurately recognize all the important limits or barriers that make it difficult for me to achieve my goal. I describe, with details, how they make it difficult. I even recognize and describe lesser limits or barriers that make it more difficult to achieve my goal. |
| I suggest workable and effective solutions for dealing with the limits or barriers so I can achieve my goal. | I suggest solutions for dealing with the limits or barriers, but my suggestions do not relate to the problems created by the limits or barriers. | I suggest several solutions for dealing with the limits or barriers, but some of them do not help solve the important problems created by the limits or barriers. | I suggest a number of workable solutions for dealing with the limits or barriers so I can achieve my goal. My suggestions will help me deal with the problems created by the limits or barriers. | I suggest a number of interesting and workable solutions for dealing with the limits or barriers so I can achieve my goal. My suggestions show I have thought carefully because some of my ideas are very different from what others might suggest; the solutions relate directly to all of the specific problems caused by the limits or barriers. |
| I select and try out the best solution. | I select what seems to be the best solution, but I do not try it out in a situation that gives me any usable information about how well it works. | I select what seems to be the best solution and try it out, but the way I set up the test does not really tell me how well it works. I still won't know if the solution is a good one for dealing with the limits or barriers. | I select what seems to be the best solution and try it out in a way that will tell me if it works. The test I use helps me decide if the solution is a good one for dealing with the limits or barriers in my problem. | I decide which of my ideas is probably going to be the best solution and set up a way of trying it out to see if it works. I use a method of testing the solution that I know will give me a complete idea of how well it helps me deal with all of the problems created by the specific limits or barriers. I also see if the solution has other unexpected effects that help me achieve my original goal. |
| When I try other solutions besides my first choice, I explain the reasons they were not my first choice and describe how well each of them helps me deal with the limits or barriers in my problem. | I explain the process I used to put my other solutions in order, but it makes no sense. I do not describe how well any of the solutions worked. | I explain the process I used to put my other solutions in order, but the process is not very clear or has some errors; or I do not describe how each of the solutions worked. | I explain the process I used to put my other solutions in order of importance. The process is clear and makes sense. I also describe how well the solutions helped me deal with the limits or barriers in my problem. | I explain clearly and with details why I am testing other solutions besides my first choice. I describe the criteria I used to put the solutions in order of importance and tell how the solutions meet the criteria. I then explain how well each solution worked to help me deal with the limits or barriers in my problem. |

Complex Thinking Standards - Reasoning Strategy 12: Experimental Inquiry

| | Level 1 | Level 2 | Level 3 | Level 4 |
|--|--|---|---|---|
| I use accurate and important information to suggest an explanation for something I am studying. | I suggest an explanation for something I am studying, but I include inaccurate or unimportant information and leave out important information. | I suggest an explanation something I am studying. I include some inaccurate information or leave out important information that would have made the explanation clearer. | I suggest a clear explanation for something I am studying. My explanation includes accurate and important information. | I suggest a clear explanation for something I am studying. My explanation includes accurate and important information from a variety of sources. I check my information carefully to make sure it clearly explains what I observe. |
| I make a prediction about what would happen if my explanation is correct. | I make a prediction that cannot be tested. | I make a prediction about what would happen if my explanation is correct, but the prediction is based on the incorrect use of information in my explanation or is a prediction that would be difficult to test. | I make a prediction about what would happen if my explanation is correct. The prediction is based on the information in my explanation and can be tested. | I make a prediction about what would happen if my explanation is correct. The prediction can be tested and is based on the information in my explanation. I even add more information to show that I am increasing my knowledge of what I am studying. |
| I set up and carry out an experiment (or activity) to find out whether my prediction is accurate. | I set up and carry out an experiment, but it does not test the prediction. The set-up of the experiment is sloppy and my results are inaccurate or not usable. | I set up and carry out an experiment that tests some parts of my prediction but does not give me complete information. Some of the results are difficult to use in finding out whether my prediction is accurate. | I set up and carry out an experiment that does a good job of testing the prediction. I get some accurate, clear, and usable results. | I set up and carry out an experiment that tests all aspects of my prediction. The experiment also produces other useful information and gives answers to other questions related to my prediction. I carefully plan every step of the activity or experiment so that the results are accurate, clear, and usable. |
| I accurately evaluate the results of the experiment (or activity) and decide whether my original explanation of what I am studying is correct. | I describe some results, but I make many errors and do not relate the results to my original explanation. | I describe some important results of the experiment, but I leave out some important results or have trouble explaining how the results related to my original explanation. | I accurately evaluate the important results of the experiment to decide whether my prediction was accurate. I explain how well the results support my original explanation. | I accurately evaluate all the results of the experiment to decide whether my prediction was accurate and the results support my original explanation of what I am studying. I discuss how accurately I used the important information in my original explanation. I also describe what I learn or understand better as a result of doing this experiment. |

Complex Thinking Standards - Reasoning Strategy 13: Invention

Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|--|---|---|---|
| I suggest a process that could be improved upon or a product that could be created. | I suggest a process or product that is not related to a specific need. | I suggest a process or product that is somewhat useful, but will not really help meet a specific need. | I suggest a process or product that could be improved upon or created. My idea is new and useful. | I suggest a process or product that could be improved upon or created. My idea is unusual and extremely useful. It shows that I have studied and thought carefully about what it takes to come up with an idea that will improve people's lives by meeting a specific need. |
| I set clear and important standards that my invention will meet. | I set standards that do not really relate to my invention or are so low that it looks like I do not plan to do quality work. | I set clear standards, but some of them are not very useful for this type of invention or are not high enough to help me do quality work. | I set clear and useful standards that will be my guide to quality as I work on my invention. | I set clear and useful standards that my invention must meet. I make sure the standards are high enough so that my invention will be the best. |
| As I work on my invention, I make detailed and important changes when necessary. | As I work, I make almost no changes. I stick with my first try, even if it does not work very well. | As I work, I make changes, but only when absolutely necessary. | As I work, I make important changes when necessary so the invention will meet the need that it is supposed to meet. | As I work, I study my invention carefully to identify small changes that might make it better. I always go back and think about the need my invention is supposed to meet, and my changes definitely help it better meet that need. My goal is to keep making changes until my invention is the best it can be. |
| I work on my invention until it is complete and has met the standards that I set. | I quit work on my invention before it meets the standards I set. The invention does not serve its intended purpose. | I work on my invention only until it barely meets some of the standards I set. It partially serves its intended purpose. | I work on my invention until it meets all the standards that I set. The final product or process serves its intended purpose. | I work on my invention until it completely meets or exceeds the standards that I set. The final process or product serves its intended purpose and even goes beyond what I had originally planned. |

Information Processing Standards Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|--|---|--|---|--|
| I find meaning in information and then combine and organize information to make it useful for my task. | I make major errors when I look for meaning in information that I gather for my task, and I do not combine or organize information. | I make errors when I look for meaning in information that I gather for my task, and I combine the information inaccurately or in a way that makes it confusing | I find useful and accurate meaning in the information I gather for my task, and I combine and organize the information so that it makes sense | I find useful and accurate meaning in information I gather for my task. I understand meanings in information that other people do not see. I then combine and organize information in my own way to express certain ideas. |
| I use a variety of methods and resources when gathering information for my task. | I do not use important information resources or the best methods when I gather information for my task. | I miss some important information resources and fail to use some of the best methods when I gather information for my task. | I use important information resources and useful methods when I gather information for my task. | I use important information resources and useful methods when I gather information for my task. I even find resources that other people don't think of or don't know about. My methods are unusual but effective. |
| I accurately determine how valuable specific information may be to my task. | I do not determine how valuable specific information may be to my task, or I make many major errors when I explain how the information may be useful or whether it is believable. | I make some errors when I determine how valuable specific information may be to my task and explain how useful and believable it is. | I accurately determine how valuable specific information may be in my task. I explain how it would be useful and whether it is believable. | I accurately determine how valuable specific information may be to my task, explaining in detail how and why the information would be useful and whether it is believable. My explanation shows that I understand well the kind of information needed for my task. |
| I recognize when more information is needed and explain how the new information would improve the completed project. | I do not try to recognize when a project needs more information. | I do not recognize when a project needs more information. Even if I decide more is needed, I do not find the needed information. | I recognize that more information would make the completed project better and explain how additional information would improve it. I then find the information. | I recognize when more information is needed, even when other people may think the project is fine. I explain how the completed project would benefit from additional information and I describe exactly what information is needed. I then find the information. |

Effective Communication Standards Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|--|--|--|--|---|
| I communicate ideas clearly. | I communicate information in unorganized pieces. | I communicate some important information, but I do not organize it well around a main idea or topic. | I communicate ideas by making sure I have a clear main idea or topic and enough details to explain or support the idea or topic. | I communicate ideas by making sure I have a strong main idea or topic and carefully organized details that explain or support the idea or topic. I make sure the details help make the bigger ideas useful and interesting. |
| I communicate well with different audiences. | I present information to various audiences in a way that conflicts with their knowledge and interests. | I present information to various audiences in a way that does not completely suit their knowledge and interests. | I present information to various audiences in a way that suits their specific knowledge and interests. | I present information to various audiences in a way that makes the most of their specific knowledge and interests. |
| I communicate well using a variety of media. | I do not even try to communicate in more than one medium. | I try to communicate using two mediums, but I make errors in the processes and misunderstand the accepted standards of the mediums I am using. | I communicate using two mediums and follow the correct process and use the accepted standards for both of those mediums. | I use many methods of communication and I follow the correct processes and use the accepted standards of those mediums. I also use the mediums in new and different ways. |
| I communicate well for different purposes. | I do not try to explain the purpose of my communication or I don't really have a clear purpose. | I try to explain the purpose of my communication, but I make errors in the explanation or leave out information that would make it clear. | I clearly explain the purpose of my communication by selecting and using effective methods. | I clearly explain the purpose of my communication by selecting and using very effective and original methods. My explanation goes beyond just stating the purpose; it adds meaning to the information I am communicating. |

Collaboration/Cooperation Standards Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|--|--|---|---|--|
| I work to help achieve the goals of the group. | I don't participate in group discussions or show that I care about the group goals; or I actually work against the goals. | I participate in group discussions and show that I care about the group goals, but I do not do the jobs assigned to me. | I participate in group discussions and show that I care about the group goals. I complete the jobs assigned to me. | I participate actively and even help lead the group in setting goals. I do the jobs assigned to me better than anyone expects. |
| I communicate well with the other group members. | I do not participate in group discussions, even when asked to. I share ideas in a way that shows I don't really care about the feelings and ideas of others. | I participate in group discussions when I am asked to. When I share my ideas, I don't clearly show that I care about the feelings and ideas of others. | I participate in group discussions without being asked to. When I share my ideas, I show that I care about other people's feelings and ideas. | I encourage good communication among the group members and try to make sure everyone shares their ideas. When I share my ideas, I show that I care about other people's feelings and ideas, and I encourage everyone in the group to do the same. |
| I help make sure the group works well together. | I do not participate in discussing how well we are working together. When the group decides to change, I refuse to help working on the changes. | I participate in discussions of how well we are working together only when I am asked to, and I don't have ideas for ways to change. When we decide to change, I put little effort into making those changes. | I participate in discussions of how well we are working together and help develop suggestions for changes when we need to improve. I work on making the changes that we agree to. | I encourage the group to evaluate how well we are working together. I try to get everyone involved in thinking of ways to make changes when we need to improve. When we decide to make changes. I try to make sure the changes help us work better together. |
| I perform a variety of jobs in my group. | I don't even try to perform any more than one jobs in my group. | I try to perform two jobs in my group but don't perform both well. | I perform two jobs in my group and do both wells. | I perform many jobs in my group and do them all well. |

Habits of Mind Standards Student Rubric

| | Level 1 | Level 2 | Level 3 | Level 4 |
|--|---|--|---|--|
| I am aware of my own thinking. | I describe my thinking when I am solving a problem or doing other kinds of mental tasks, but my description is confusing. I do not describe how thinking about my thinking affects how I learn or do tasks. | I don't include very much information when I try to describe how I am thinking when I am solving a problem or doing other kinds of mental tasks. I explain only small benefits that can be gained from thinking about my own thinking. | I describe how I am thinking when I am solving a problem or doing other kinds of mental tasks. I explain how thinking about my thinking helps me learn and helps me improve my work. | I describe in detail the steps of my thinking when I am solving a problem or doing other kinds of mental tasks. I explain in detail how thinking about my thinking helps me improve my work and how it helps me be a better learner. |
| I plan carefully before I begin to work. | I begin working and just let things happen as they happen. I do not describe the steps I must take and I do not make a schedule. | I begin working with only unclear goals. I describe few of the steps I must take to achieve my goals, and I make an incomplete schedule. | I set clear goals and describe some steps I must take to achieve them. I make and use a schedule. | I set clear goals and describe each step I must take to achieve them. I make a detailed schedule for each step and closely follow the schedule. |
| I am aware of available resources that could help me complete a task. | As I am working on a task, I use resources only if they happen to be readily available. I do not use many resources that are available. | I begin working on a task and look for resources when I need them. This slows my work because I have to keep stopping to find the resources. When a resource is not available, I do not find other resources that might help. | I list the most important resources I might need before I start working on a task. I review the resources that are available and describe other resources that I may have to find. | I describe in detail all the resources I think I might need before I start working on a task. I search for the resources available to me and, if something I need is not available, I describe other places I might get this help or information. I also predict what parts of the task will require the use of the most resources. |
| I listen to and evaluate feedback to decide if I need to change my approach to a task. | I don't listen to most information that tells me how I am doing on a task. I refuse to accept information that tells me I should change my approach to the task. | I listen to information about how I am doing only if the information is easy to get. If I don't like the source of the information, I don't listen. I don't like listening to advice from others. | I listen to important information about how I am doing and decide if it will help me with my task. I change my approach to the task when the feedback convinces me that what I'm doing isn't working. I listen to advice and decide whether it is useful. | I find and listen to information about how I am doing on a task. I change my approach when the feedback convinces me that why I'm doing isn't working. I seek advice from sources I know will give me good information about how my task is going. I study the information, no matter where it came from, and decide whether it is useful. |

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| I evaluate how well I am doing. | I don't try to evaluate how well I am doing. | I evaluate how well I am doing, but I use only my own opinion. I don't describe the effects of my work and don't explain how I can learn from what I am doing. | I evaluate how well I am doing and describe the effect my work has right now. I try to find out how others would evaluate my work. I explain how I can learn from what I do well on the task. | I evaluate, in detail, how well I am doing by looking at my performance from my own point of view and by making sure I find out how others would evaluate my work. I describe the effect my work has right now and what effect it might have later. I explain how I can learn from my successes and my failures. |
| I am accurate in my work. | I don't check to make sure my information is accurate. I make little effort to find and correct errors. | I try to pay attention to details in my work, but miss some important ideas. I check some sources to see if my work is accurate, but miss important places I should check. I miss important errors and fail to correct others. | I pay attention to details when I work. I check other sources to make sure my work is accurate. I find and correct major errors. | I pay close attention to details. I check every useful sources to make sure my work is completely accurate. When I find errors, I quickly correct the errors in a way that improves the value of the entire project. |
| I am clear in my work. | My work has many confusing parts. | My work has some confusing parts that affect the whole. | The most important parts of my work are free of any confusion. | My work has not confusing parts. |
| I am open-minded. | | I understand that other people have ideas different from mine, but I don't pay attention to these different ideas. | When I come across ideas that are different from mine, I try to understand them. | I try to find ideas that are different from mine and evaluate them to decide if they make sense - even when the ideas are unusual. |
| I avoid acting without thinking. | I do not evaluate the situation to decide whether I need more information before I act. | I do only a quick evaluation of a situation to decide whether I need more information before I act. When I decide more information is needed, I look for some additional information only when it is easy to obtain. | I evaluate a situation to decide if I need more information before I act. When I decide more information is needed, I look for that information. | I evaluate a situation carefully and seek advice from other sources to decide whether I need more information before I act. When I decide more information is needed, I look for sources that might help and study them to find important information. |
| I state my ideas or opinion if the issue or situation warrants it. | I state my ideas or opinion in a way that is harmful to the situation. I cannot support my ideas or opinion. | I state my ideas or opinion about an issue when comments are not really needed. My comments may simply repeat what has already been said or I may not clearly explain the reasons for my ideas or opinion. | I state my ideas or opinion about an issue or situation when I believe I can give important support to a way of looking at the issue or situation. I explain the reasons for my ideas or opinion. | I state my ideas or opinion about an issue or situation when I believe I can shed light on the issue or situation. I give important information and provide a valuable and new way of looking at the issue or situation. I explain the important information that supports my ideas or opinions. |

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| <p>I am sensitive to the feelings, knowledge, and abilities of others.</p> | <p>I don't communicate well with people who have different feelings, knowledge, and abilities. In fact, I communicate that I don't care about their differences.</p> | <p>I try but I don't really understand the different feelings, knowledge, and abilities of others well enough to communicate effectively with them. I do little to encourage others to show respect for these differences.</p> | <p>I communicate well with people who have different feelings, knowledge, and abilities. I encourage people to show respect for the feelings, knowledge, and abilities of others.</p> | <p>I evaluate situations to make sure I understand the feelings, knowledge, and abilities of others. I use this understanding when I communicate, and I encourage people to show respect for the different feelings, knowledge, and abilities of others.</p> |
| <p>I work hard on tasks even when the answers or solutions are difficult to find.</p> | <p>I give up quickly on difficult tasks.</p> | <p>I try to complete tasks when the answers or solutions are difficult, but I give up when I have to try too hard. I don't have good techniques for keeping myself on task.</p> | <p>I show that I don't give up when I am trying to find the answers or solutions. I keep myself on task.</p> | <p>I show that I will not give up, no matter how difficult it is to find the answers or solutions. I evaluate how hard I am trying and I use a variety of techniques to keep myself on task.</p> |
| <p>I push myself to try things that I'm not sure I can do.</p> | <p>I avoid tasks that I'm not sure I can do.</p> | <p>I try tasks that are given to me even when I'm not sure I can do them, but I give up before I accomplish them or before I have learned from them.</p> | <p>I try tasks that are given to me even when I'm not sure I can do them, and I stick with them until I've accomplished them or until I have learned all I can.</p> | <p>I look for tasks that I'm not sure I can do and stick with them until I've accomplished them or until I have learned all I can.</p> |
| <p>I create, trust, and use standards for evaluating my own work.</p> | <p>I do not create standards for evaluating my own work.</p> | <p>I create and trust standards for evaluating my own work, but I don't make sure my final product meets those standards.</p> | <p>I create and trust standards for evaluating my own work. I make sure my final product meets those standards.</p> | <p>I create and trust standards for evaluating my own work. The standards I set are high enough to make me produce something of high quality. I make sure my final product meets those standards.</p> |
| <p>I find new ways of looking at situations that are different from the usual ways in which people look at them.</p> | <p>I look at a situation in only one way, and that way is one of the most common. I don't look further, even when it is clear that it would be helpful to do so.</p> | <p>I describe different ways of looking at a situation, but my ideas are common.</p> | <p>I find a variety of ways of looking at a situation and evaluate how useful they are. Some of the ways I find are new and different.</p> | <p>I use time and resources creatively to find as many ways as possible to look at a situation. I evaluate these ways to see how useful they might be. My ways are very different from the ways of others, but often they are more useful.</p> |

Rubrics for Life-long Learning Skills/Behavior

| | Level 1 | Level 2 | Level 3 | Level 4 |
|-------------------------------|--|---|--|--|
| Effort/Participation | The student refuses to engage in classroom activities and discussions. | The student participates in classroom activities and discussions only when required to do so or when the request involves some form of explicit or implied threat. | The student participates in classroom activities and discussions when asked. | The student participates in classroom activities and discussions without being asked. |
| Behavior | The student refuses to follow classroom rules and procedures. | The student follows classroom rules and procedures only when required to do so or when the request involves strong urging or even some explicit or implicit threat. | The student follows classroom rules and procedures when reminded or cued. | The student follows classroom rules and procedures with being reminded or cued. |
| Work Ethic/Assignments | The student is not punctual in turning in assignments and does not meet the stated requirements relative to neatness and adherence to conventions. | The student is not punctual in turning in assignments or does not meet the stated requirements relative to neatness and adherence to conventions. | The student is punctual in turning in assignments and meets the stated requirements relative to neatness and adherence to conventions. | The student is punctual or early turning in assignments and goes beyond the stated requirements relative to neatness and adherence to conventions. |
| Working In Groups | The student refuses to work toward the attainment of group goals. | The student works toward the attainment of group goals only when required to do so or when the request involves strong urging or even some explicit or implicit threat. | The student works toward the attainment of group goals when asked or cued. | The student works toward the attainment of group goals without being asked. |

SAMPLE COPY BOX

| | Level 1 | Level 2 | Level 3 | Level 4 |
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