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| Code Breaking and Explanation (Worth 40 Points) | | | | |
| Category | 4 | 3 | 2 | 1 |
| PS.1  Make sense of problems and perseveres in solving them.  Must meet standard  on this expectation  to meet the overall  standard | Skillfully demonstrates a thorough understanding of  problem’s elements through a variety of strategies.  Evaluates and selects an appropriate content-specific problem- solving strategy that will lead to a logical solution and/or quality product.  Creates a logical progression/sequence of information, which allows an audience who is unfamiliar with this topic to successfully complete the procedure with ease. | Demonstrates understanding of problem’s elements through a variety of strategies, such as summarizing the problem in own words, listing all relevant information, identifying missing information, etc.  Selects at least one appropriate content-specific problem-solving strategy that will lead to a logical solution and/or quality product.  Creates a logical progression/sequence of information, which allows an audience who is unfamiliar with this topic to successfully complete the procedure with minimal confusion. | Attempts to demonstrate und rstanding of problem’s elements, but several elements are inaccurate and/or incomplete.  Attempts to select an appropriate content- specific problem-solving strategy, but strategy is  inaccurate or inappropriate for problem, which  will not lead to a logical solution and/or quality  product.  Creates a progression/sequence. Some steps or omissions may cause audience confusion in completing the procedure. | Does not demonstrate understanding of problem’s elements.  Does not select an appropriate content- specific problem-solving strategy.  Progression/sequence is not logical or  major omissions exist, which prohibit  successful completion of procedure. |
| P.S.2  Abstract and Quantitative Reasoning is Implemented in a Plan  Must meet standard  on this expectation  to meet the overall  standard | Skillfully fulfills all discipline-specific and task requirements.  Skillfully implements the plan of action and content-specific strategy in order to solve a problem.  Demonstrates insightful and logical reasoning throughout the problem-solving process to reach accurate and effective solutions.  Checks work throughout implementation, revising work as needed. | Fulfills all discipline-specific and task requirements.  Effectively and accurately implements the plan of action and content-specific strategy in order to solve a problem.  Demonstrates logical reasoning throughout the problem-solving process to reach accurate and effective solutions with minor errors.  Checks work throughout implementation, revising work as needed. | Attempts to fulfill all discipline-specific and task requirements, but one element may be inaccurate or incomplete.  Attempts to implement the plan of action and/or content-specific strategy, but errors result in inaccurate solutions.  Demonstrates some logical reasoning, but several errors result in inaccurate and/or ineffective solutions.  Inconsistently checks work throughout  implementation or does not revise work as  needed. | Does not fulfill several discipline- specific and task requirements.  Does not implement plan of action  and/or content-specific strategy.  Demonstrates little to no logical reasoning.  Does not check work and does not revise work as needed. |
| P.S.3  Reflects on  Results  Must meet standard  on this expectation  to meet the overall  standard | Skillfully justifies the solution and/or quality product by interpreting data and/or results in writing.  Appropriately cites all required information with no errors (when appropriate).  Insightfully reflects upon problems, mistakes, or misunderstandings encountered during the problem-solving process. Confidence rating is noted with an explanation. | Effectively justifies the solution and/or quality product by interpreting data and/or results in writing  Appropriately cites required information with minor errors (when appropriate).  Reflects upon problems, mistakes, or misunderstandings encountered during the problem-solving process. Confidence rating is noted with an explanation. | Effectively justifies the solution and/or quality product by interpreting data and/or results in writing  Appropriately cites required information with minor errors (when appropriate).  Reflects upon problems, mistakes, or misunderstandings encountered during the problem-solving process. Confidence rating is noted with an explanation. | Does not justify solution and/or product.  Does not interpret data and/or results.  Does not cite sources of information (when appropriate).  Does not reflect upon problems,mistakes, or misunderstandings.No confidence rating |
| P.S.4  Creates an  organizing  structure | Uses an organizational structure that enhances the response. Equal signs are aligned and correct notation and units are used throughout.  Skillfully represents data and/or results in an effective manner, using technology when appropriate. | Uses an organizational structure that enhances the response. Equal signs are aligned and correct notation and units are used throughout.  Skillfully represents data and/or results in an effective manner, using technology when appropriate. | Uses an organizational structure that causes confusion. Equal signs are not aligned, units may be missing and/or units are incorrect.  Ineffectively represents data and/or results. | There is little evidence of organization.  Equal signs are not aligned, units may  be missing and/or units are incorrect.  Does not represent data and/or results. |
| P.S.5  Demonstrates  understanding of written language conventions | Demonstrates consistent control of grammar, usage, punctuation, sentence construction, and spelling. | Demonstrates control of usage, grammar, punctuation, sentence construction, and spelling.  Occasional errors do not usually interfere with meaning | Demonstrates some control of usage, grammar,  punctuation, sentence construction, and spelling.  Errors do interfere with meaning. | Demonstrates little control of usage, grammar, punctuation, sentence construction, and spelling.  Numerous errors interfere with meaning |
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| Code Encryption and Explanation (Worth 20 Points) | | | | |
| Category | 4 | 3 | 2 | 1 |
| PS.1  Make sense of problems and perseveres in solving them.  Must meet standard  on this expectation  to meet the overall  standard | Skillfully demonstrates a thorough understanding of  problem’s elements through a variety of strategies.  Evaluates and selects an appropriate content-specific problem- solving strategy that will lead to a logical solution and/or quality product.  Creates a logical progression/sequence of information, which allows an audience who is unfamiliar with this topic to successfully complete the procedure with ease. | Demonstrates understanding of problem’s elements through a variety of strategies, such as summarizing the problem in own words, listing all relevant information, identifying missing information, etc.  Selects at least one appropriate content-specific problem-solving strategy that will lead to a logical solution and/or quality product.  Creates a logical progression/sequence of information, which allows an audience who is unfamiliar with this topic to successfully complete the procedure with minimal confusion. | Attempts to demonstrate und rstanding of problem’s elements, but several elements are inaccurate and/or incomplete.  Attempts to select an appropriate content- specific problem-solving strategy, but strategy is  inaccurate or inappropriate for problem, which  will not lead to a logical solution and/or quality  product.  Creates a progression/sequence. Some steps or omissions may cause audience confusion in completing the procedure. | Does not demonstrate understanding of problem’s elements.  Does not select an appropriate content- specific problem-solving strategy.  Progression/sequence is not logical or  major omissions exist, which prohibit  successful completion of procedure. |
| P.S.2  Abstract and Quantitative Reasoning is Implemented in a Plan  Must meet standard  on this expectation  to meet the overall  standard | Skillfully fulfills all discipline-specific and task requirements.  Skillfully implements the plan of action and content-specific strategy in order to solve a problem.  Demonstrates insightful and logical reasoning throughout the problem-solving process to reach accurate and effective solutions.  Checks work throughout implementation, revising work as needed. | Fulfills all discipline-specific and task requirements.  Effectively and accurately implements the plan of action and content-specific strategy in order to solve a problem.  Demonstrates logical reasoning throughout the problem-solving process to reach accurate and effective solutions with minor errors.  Checks work throughout implementation, revising work as needed. | Attempts to fulfill all discipline-specific and task requirements, but one element may be inaccurate or incomplete.  Attempts to implement the plan of action and/or content-specific strategy, but errors result in inaccurate solutions.  Demonstrates some logical reasoning, but several errors result in inaccurate and/or ineffective solutions.  Inconsistently checks work throughout  implementation or does not revise work as  needed. | Does not fulfill several discipline- specific and task requirements.  Does not implement plan of action  and/or content-specific strategy.  Demonstrates little to no logical reasoning.  Does not check work and does not revise work as needed. |
| P.S.3  Reflects on  Results  Must meet standard  on this expectation  to meet the overall  standard | Skillfully justifies the solution and/or quality product by interpreting data and/or results in writing.  Appropriately cites all required information with no errors (when appropriate).  Insightfully reflects upon problems, mistakes, or misunderstandings encountered during the problem-solving process. Confidence rating is noted with an explanation. | Effectively justifies the solution and/or quality product by interpreting data and/or results in writing  Appropriately cites required information with minor errors (when appropriate).  Reflects upon problems, mistakes, or misunderstandings encountered during the problem-solving process. Confidence rating is noted with an explanation. | Effectively justifies the solution and/or quality product by interpreting data and/or results in writing  Appropriately cites required information with minor errors (when appropriate).  Reflects upon problems, mistakes, or misunderstandings encountered during the problem-solving process. Confidence rating is noted with an explanation. | Does not justify solution and/or product.  Does not interpret data and/or results.  Does not cite sources of information (when appropriate).  Does not reflect upon problems,mistakes, or misunderstandings.No confidence rating |
| P.S.4  Creates an  organizing  structure | Uses an organizational structure that enhances the response. Equal signs are aligned and correct notation and units are used throughout.  Skillfully represents data and/or results in an effective manner, using technology when appropriate. | Uses an organizational structure that enhances the response. Equal signs are aligned and correct notation and units are used throughout.  Skillfully represents data and/or results in an effective manner, using technology when appropriate. | Uses an organizational structure that causes confusion. Equal signs are not aligned, units may be missing and/or units are incorrect.  Ineffectively represents data and/or results. | There is little evidence of organization.  Equal signs are not aligned, units may  be missing and/or units are incorrect.  Does not represent data and/or results. |
| P.S.5  Demonstrates  understanding of written language conventions | Demonstrates consistent control of grammar, usage, punctuation, sentence construction, and spelling. | Demonstrates control of usage, grammar, punctuation, sentence construction, and spelling.  Occasional errors do not usually interfere with meaning | Demonstrates some control of usage, grammar,  punctuation, sentence construction, and spelling.  Errors do interfere with meaning. | Demonstrates little control of usage, grammar, punctuation, sentence construction, and spelling.  Numerous errors interfere with meaning |
| Work Hard (Worth 20 Points) | | | | |
| Category | 4 | 3 | 2 | 1 |
| Work Hard | Project is turned in on time, correctly formatted, 100% complete. | Project is turned in on time, mostly formatted correctly with only a few minor errors. | Project is turned in late, mostly formatted correctly with only a few minor errors. | Project is turned in late, formatted incorrectly with several major errors. |