

SAUGUS IRON WORKS CONTENT EVALUATION RUBRIC (January 3, 2006)


<i>STUDENTS WILL BE ABLE TO...</i>	<i>INADEQUATE (1)</i>	<i>ADEQUATE (2)</i>	<i>GOOD (3)</i>	<i>STRONG (4)</i>	WEIGHT
Give a simple explanation of what a mineral is and some examples, e.g., quartz, mica.	Students are unable to give a detailed explanation of what a mineral is. Students cannot give examples.	Students are able to give a basic explanation of what a mineral is. Students can give one or two examples.	Students are able to accurately explain what a mineral is. Students can give many examples.	Students are able to accurately explain what a mineral is and generalize this knowledge based on the principles of mineral characteristics. Students can give many examples.	9%
Identify the physical properties of minerals (hardness, color, luster, cleavage, and streak), and explain how minerals can be tested for these different physical properties.	Given mineral samples students incorrectly identify the physical properties. Students give inaccurate examples.	Given mineral samples and appropriate testing tools, students can identify some of the physical properties of these minerals, i.e. hardness, color, luster, cleavage, and streak. Students are able to give a basic explanation of how minerals can be tested for different physical characteristics.	Given mineral samples and appropriate testing tools, students can identify physical properties of these minerals, including hardness, color, luster, cleavage, and streak. Students are able to explain in detail how minerals can be tested for these different physical characteristics.	Students are able to successfully conduct tests of hardness, color, luster, cleavage and streak on selected minerals. Students can provide detailed descriptions of the physical properties of minerals and from these tests, generalize this knowledge and successfully categorize these minerals.	9%
Identify the three categories of rocks (metamorphic, igneous, and sedimentary) based on how they are formed, and explain the natural and physical processes that create these rocks.	Students inaccurately identify the categories of rocks (igneous, metamorphic and sedimentary). Students are unable to explain the natural and physical processes that create rocks.	Students will be able to accurately identify some of the categories of rocks (igneous, metamorphic and sedimentary) based on how they are formed. Students will be able to explain some of the natural and physical processes that create rocks.	Students will be able to accurately identify the categories of rocks (igneous, metamorphic and sedimentary) based on how they are formed. Students will be able to explain the natural and physical processes that create rocks.	Students are able to describe the characteristics of the three categories of rocks (igneous, metamorphic and sedimentary). They can make connections using the information to explain the physical processes that create these rocks and apply it to abstract writing.	9%

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Identify and explain the difference between simple and complex machines, e.g., hand can opener that includes multiple gears, wheel, wedge, gear, and lever.	Students are unable to explain the differences between simple and complex machines. Errors exist in student's examples.	Students are able to identify and explain the differences between simple and complex machines. Students are able to accurately offer some examples.	Students are able to identify and explain the differences between simple and complex machines. Students are able to accurately offer many examples without error.	Students are able to explicitly identify and explain the differences between simple and complex machines. Students are able to apply knowledge by generating ideas and designing their own complex machines.	9%
Describe different ways in which a problem can be represented, e.g., sketches, diagrams, graphic organizers, and lists.	Students are unable to develop a solution to a problem. Frequent errors exist in the students design.	Students are able to develop a solution to a problem. Students are able to accurately design a graphical sketch.	Students are able to develop an effective solution to a problem. Students are able to accurately design a graphical sketch that clearly illustrates the solution to a problem.	Students are able to develop an effective solution to a problem. Students are able to accurately design a graphical sketch that clearly illustrates multiple solutions to a problem.	9%
Identify and explain the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) to construct a given prototype safely.	Students have frequent errors in the identification and explanation of the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) to construct a given prototype safely.	Students are able to identify some of the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) and give a rudimentary explanation to construct a given prototype safely.	Students can adequately identify and explain the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) to construct a given prototype safely.	Students correctly identify all of the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) to construct a given prototype safely, and can give a detailed explanation of processes involved in constructing the prototype.	9%
Identify and use cause and effect, comparison/contrast and sequential patterns; select evidence to justify predictions.	Students have frequent errors in using cause and effect, compare/contrast, and sequential patterns; they are unable to select appropriate evidence to justify predictions.	Students can identify and use some elements of cause and effect, compare/contrast, and sequential patterns. There may be errors in selecting evidence to justify their predictions.	Students can accurately identify and use all elements of cause and effect, compare/contrast, and sequential patterns. They can successfully select evidence to justify their predictions.	Students can identify and use all elements of cause and effect, compare/contrast, and sequential patterns. They select the appropriate evidence to justify their predictions, and defend their choices.	8%

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Be able to write coherent multiple paragraph compositions; use simple, complex, and compound sentences	Students can write multiple paragraph compositions; use simple, sentences with limited ideas and some details. Compositions may contain errors that obscure meaning.	Students can write multiple paragraph compositions; use simple, complex, and compound sentences with rudimentary ideas and basic supporting details. Compositions may contain errors.	Students can write coherent multiple paragraph compositions; use simple, complex, and compound sentences, with logical organization and strong details.	Students can write coherent five paragraph compositions with rich topic development; use simple, complex, and compound sentences, rich use of language.	8%
Demonstrate an understanding of the roles and motivations of our founding fathers	Students cannot demonstrate an understanding of the roles and motivations of our founding fathers.	Students demonstrate a limited understanding of the roles and motivations of our founding fathers.	Students can demonstrate an understanding of the roles and motivations of our founding fathers.	Students demonstrate a logical understanding of the roles and motivations of our founding fathers, and support their demonstrations with rich/effective details.	5%
Evaluate the economic and social transitions of rural America	Students cannot evaluate the economic and social transitions of rural America.	Students demonstrate a limited understanding on how to evaluate the economic and social transitions of rural America.	Students appropriately evaluate the economic and social transitions of rural America.	Students effectively evaluate and analyze the economic and social transitions of rural America.	5%
Use electronic research tools to access information from electronic databases.	Students cannot appropriately use electronic research tools to access information from electronic databases.	Students demonstrate a limited understanding of how to appropriately use electronic research tools to access information from electronic databases.	Students demonstrate an understanding of how to appropriately use electronic research tools to access information from electronic databases.	Students demonstrate an exceptional understanding of how to appropriately use electronic research tools to access information from electronic databases and apply this skill to other tasks.	5%
Observe a computer generated simulation of real-life situations and explain how it works.	Students observe a computer-generated simulation of real-life situations but cannot explain how it works.	Students observe a computer-generated simulation of real-life situations and give a rudimentary explanation of how it works.	Students observe a computer-generated simulation of real-life situations and give an adequate explanation of how it works.	Students observe a computer-generated simulation of real-life situations and give a detailed explanation, with rich language, of how it works.	5%

 Science & Technology/Engineering

 English Language Arts

 History and Social Science

 TRITEC Technology Competency