

Utah Compose Math/Cross-Curricular Prompts

Content Area	Prompt	Grade Level	Genre
Math	<p>Read the web page. Use the information you read to write a letter to a friend. Explain what this page says about saving money. Be sure to include all five tricks!</p> <p>Webpage: 5 Simple Saving Tricks</p>	3	Informative/Explanatory
Math	<p>What would make an ideal backyard or outdoor play space? What would you do there? Write a description of what the perfect backyard or outdoor play space would look like and what it would include. Explain how you would spend your time there.</p>	3	Informative/Explanatory
Math	<p>Do you get an allowance or money from your parents for chores? Read the webpages about savings. Then write a letter to your parents, asking them to either give you an allowance, give you a bigger allowance, or give you more money for the chores you do. Explain to your parents that you need to begin saving money. Use the information you read to explain your plan to save money and what you will do with your savings.</p> <p>Webpage: Saving Gives You Power Webpage: How to Use Savings</p>	4	Opinion/Argumentative
Math	<p>Read the webpage. Try the compounding calculator. Then write a letter to a younger brother, sister, or friend, explaining how banks work. Be sure to explain how banks have money to loan and how they make money.</p> <p>Webpage: How Banks Work</p>	5	Informative/Explanatory
Math	<p>You and your friends would like to plant a garden that will produce fresh food for your school cafeteria. Your teacher likes the idea, but wants you to write a description of the garden, including its location, its size, what will be planted, and how it will be cared for. In your essay, be sure to include specific details as to why you have made the choices you describe.</p>	5	Informative/Explanatory
Math	<p>You've won a cash award in a local sweepstakes. You can keep half, but the rules require that you donate the other half to a good cause. Think about to whom you would donate the money. Write an explanation of why you chose this person or group.</p>	5	Informative/Explanatory
Math	<p>Some people say that when you divide with a decimal number as the divisor you “move the decimal point” to make a whole number. Explain what you are really doing when you “move the decimal point,” and why you can do it. What else must you do to the problem when you convert the divisor into a whole number? Why?</p>	5	Informative/Explanatory
Math	<p>Explain reasons why using parentheses can be helpful in a numerical expression. When would you not want to use them? Why?</p>	5	Informative/Explanatory
Math	<p>Why is there a standard algorithm for multiplying multi-digit whole numbers? What are some advantages of using a standard algorithm? What are some disadvantages to the standard algorithm?</p>	5	Informative/Explanatory
Math	<p>Explain a strategy you have used for multiplying multi-digit whole numbers.</p>	5	Informative/Explanatory

Math	Explain why you must find a common denominator before adding or subtracting fractions. Why do you not need to find a common denominator before multiplying fractions?	5	Informative/Explanatory
Math	When is the product of two fractions less than the first factor? Why is the product less than the first factor? For example, $1/2 \times 1/4 = 1/8$. $1/8$ is less than $1/2$. Why is the product $1/8$ less than the first factor $1/2$?	5	Informative/Explanatory
Math	You have been asked to plan a surprise party for a friend. The party can be either inside or out. Is an inside party or an outside party better? Write a response explaining why you think one would be better than the other. You should use specific details and examples to explain your position.	6	Opinion/Argumentative Informative/Explanatory
Math	The school committee is accepting design suggestions for a new gymnasium at your school. Think of the kinds of activities you would like to do in the new gymnasium and describe some of them. Write a detailed description of a gymnasium that could allow those activities to take place.	6	Informative/Explanatory
Math	Suppose the community you live in qualifies for a one million dollar grant to spend on a community program or building. Compose an essay explaining what should be done with the money and why. Use relevant facts and concrete details to support your explanation.	7	Informative/Explanatory
Math	1. Proportionality is a big part of seventh grade mathematics. Use your knowledge about proportional relationships to answer one of the following: a. Describe the effects of scaling a geometric figure. How does the length change or the area change depending on the scale factor? b. Describe at least three characteristics of a proportional relationship between two quantities. c. How can you make predictions about a population using proportional reasoning? What allows us to generalize information without gathering data from the entire population?	7	Informative/Explanatory
Math	Athletes and entertainers are often paid huge sums of money for the work they do. How does society justify the difference between their salaries and those of people who make much less money doing other jobs? Write an argumentative essay in which you make a claim about this issue while acknowledging the opposing claim. Your essay must be based on ideas, concepts, and information from credible sources.	7	Argumentative
Math	Your school district has decided to discontinue selling snacks, such as potato chips, cookies, and soft drinks in the cafeteria. Not only is this a major source of funding for the cafeteria, but the snacks are very popular with students. However, many people are concerned about the amount of junk food students eat. Write an argumentative essay on whether it is wise for the district to take snacks out of the lunchroom for health purposes. Be sure to acknowledge the opposing claim and base your essay on ideas, concepts, and information from credible sources.	7	Argumentative
Math	Identify at least three characteristics of a linear function. Use enough detail that someone reading your response would be able to identify whether or not a function is linear if they were given a table, a graph, or an equation.	8	Informative/Explanatory
Math	Explain a proof of the Pythagorean theorem.	8	Informative/Explanatory
Math	Compare and contrast linear and exponential functions. Include features of both functions and use multiple representations as a way to discuss similarities and differences between the two.	9	Informative/Explanatory
Math	Explain the transformations you would use to show that figure A is congruent to figure B using rigid transformations. Pdf included	9	Informative/Explanatory

Math	Define and provide at least three characteristics for each rigid transformation (translation, rotation, and reflection).	9	Informative/Explanatory
Math	Compare and contrast quadratic functions with linear and exponential functions. Include features of quadratic functions and use multiple representations as a way to discuss similarities and differences between the three functions.	10	Informative/Explanatory
Math	Write three conditional probability statements based on the data provided. Will include stimulus material	10	Informative/Explanatory
Math	Are all squares similar? Rectangles? Use the definition of similarity in terms of similarity transformations to explain which geometric polygons are similar and why.	10	Informative/Explanatory
Math	Choose three function types and compare features of the functions. Be sure to include enough information so that those who read your response would be able to identify one of your functions given a representation of one of your functions.	11	Informative/Explanatory
Math	Describe a phenomena that can be represented by a periodic function and create an equation that would represent the situation. Use words to explain each parameter of the function.	11	Informative/Explanatory
Math	After reading the two articles, write an essay to appear in a Future Business Leaders publication arguing which of the presented articles depicts the more likely scenario in the poultry industry. Your essay must be based on ideas, concepts, and information from the articles. You may also wish to follow one or more of the links on the webpages for more information and evidence. Be sure to thoroughly and fairly develop both your claim and the counterclaim(s), and point out both the strengths and weaknesses of each. Webpage: Is Tyson Foods' Chicken Empire A 'Meat Racket'? Webpage: New Book Misses its Mark, Does Nothing to Educate Consumers on Realities of Modern Poultry Production	11/12	Argumentative