

Apply-Factual-Science

Scenario: You recently watched a TV documentary about the deepest part of the ocean. The documentary mentioned the depth of the deepest part of the ocean in meters. However, this number (in meters) did not quite give you clear “perspective” on just how deep this is. You want to get a more “tangible” appreciation for the depth of the deepest part of the ocean.

Task: Use the height of the world’s tallest building as a unit to measure the deepest part of the ocean.

Evaluate-Factual-Science

Scenario: For his science homework at school, your 12-year old nephew has been asked to write a report about the deepest part of the ocean. After searching online, he is confused as to whether the deepest part of the ocean is the Mariana Trench or the Challenger Deep. He has come to you for help!

Task: Which statement best explains the deepest part of the ocean and why: (1) the Mariana Trench deepest point of the ocean -OR- (2) the Challenger Deep is the deepest point in the ocean. Provide a well-reasoned, logical argument to support your explanation.

Create-Factual-Science

Scenario: For his science homework at school, your 12-year old niece has been asked to write a report about the deepest parts of the ocean. She is struggling to figure out what the deepest parts of the ocean are and what to say about them. You’ve decided to help out.

Task: Look for information and generate a table of the ocean’s 10 deepest parts. Also, include information about these parts that you think your niece might want to include in her report.

Apply-Factual-Art

Scenario: You and your 13-year old nephew were recently watching a TV show about the world’s most expensive painting ever sold. Your nephew doesn’t seem to appreciate how expensive this painting was. So, you’ve decided to be creative and explain the price of this painting in units he may better understand.

Task: Use the price of the most expensive painting ever sold to express how many Honda Civics you could buy at the same cost.

Evaluate-Factual-Art

Scenario: While listening to the radio during your morning commute, you listened to a podcast about the most expensive painting ever sold, which sold for 460 million U.S. dollars in 2017. Now, you are curious to figure out the primary reason why this painting was so expensive.

Task: Consider the different reasons why this painting was so expensive. Then, based

on your opinion, determine the primary reason you think this painting was so expensive. Provide a well-reasoned, logical argument to support your explanation.

Create-Factual-Art

Scenario: For an art assignment at school, your 12-year old niece has been asked to write a report about the world's most expensive paintings ever sold. She has been struggling to find good, reliable information online. You've decided to help her!

Task: Create a table of the world's 10 most expensive paintings and some of their most unique characteristics that would be engaging for middle-schoolers.

Apply-Factual-Finance

Scenario: You recently listened to a podcast on retirement trends in the United States. The podcast stated that many U.S. citizens are poorly prepared for retirement based on their own savings. Now, you are curious to learn more about different countries' citizens' preparedness for retirement.

Task: Use the average retirement savings in the United States to calculate how many years a person could live on a \$40,000/year budget.

Evaluate-Factual-Finance

Scenario: You recently listened to a podcast on retirement trends in the United States. The podcast stated that many U.S. citizens are poorly prepared for retirement. The podcast compared U.S. citizens to Norwegian citizens and claimed that Norwegian citizens are much better off because of their higher average retirement savings. As a skeptic, you are now determined to find information about this claim and make-up your own mind.

Task: Determine if the average retirement savings of the U.S. is useful and sufficient information for measuring whether that country's citizens are well-prepared for retirement. Provide a well-reasoned, logical argument to support your explanation.

Create-Factual-Finance

Scenario: You are taking an online course in personal finance. This week, the course will cover topics related to retirement. Your professor has told the class that retirement preparedness varies widely among U.S. citizens. In preparation for this week, your professor has asked you to do some online research on how different demographic groups (selected based on what you find interesting) compare to the national average in terms of how well-prepared they are for retirement.

Task: Come up with a table that demonstrates how average retirement savings vary by demographic in the U.S. compared to the national average retirement savings.

Apply-Conceptual-Science

Scenario: You have volunteered to tutor at a high school to help teach students who are struggling across various subjects. The tutor coordinator has informed you that a group of students need help with their physics homework and they are currently working on Bernoulli's principle. You decide that a practical application of the principle might be useful for helping your students to better understand Bernoulli's principle. After some initial research you see that Bernoulli's principle can be used to explain the notion of lift.

Task: Use Bernoulli's principle to explain how an airplane flies.

Evaluate-Conceptual-Science

Scenario: During a recent trip to the National Air and Space Museum with your extended family. Your younger cousin, who is in high school, says she is interested in better understanding how planes are able to fly. You are not very familiar with the principles behind the notion of lift, so when you get home you decide to do some investigating. After some initial research you notice that there are two predominant explanations of lift, Bernoulli's principle and Newton's laws of motion.

Task: Determine which best explains the notion of lift and why: Bernoulli's principle or Newton's laws of motion? Provide a well-reasoned, logical argument to support your explanation.

Create-Conceptual-Science

Scenario: During a recent trip to the National Air and Space Museum with your extended family, your younger cousin, who is in high school, says that she has learned about two different explanations for the notion of lift in her Physics class, Bernoulli's principle and Newton's laws of motion. She tells you that she doesn't understand them enough to know which is the correct or most reasonable explanation of lift. You are not very familiar with the principles behind the notion of lift, so when you get home you decide to do some investigating.

Task: Construct a diagram that helps to illustrate to your younger cousin the differences of Bernoulli's principle and Newton's laws of motion when applied to the notion of lift.

Apply-Conceptual-Art

Scenario: After a recent trip to the Museum of Modern Art you become fascinated with various styles of modern artists of the 20th century. One particular style is called automatism, which you had not heard of before this trip. When you get home you decide to become more familiar with the characteristics and themes of automatism so that you can identify other works beyond those that you saw at the museum.

Task: From the attached sheet of paintings, select the works that used automatism (provide an explanation of the characteristics and features you notice that are indicative of automatism).

Evaluate-Conceptual-Art

Scenario: After a recent trip to the Museum of Modern Art you become fascinated with an exhibit featuring artists that employed automatism in their work, which you had not heard of before this trip. When you get home you wonder which art era automatism came from and you decide to do some investigating. You see some information that identifies automatism with the dada era and some that identifies the surrealist era.

Task: Determine which art movement most closely identifies with automatism and why: Dadaism or surrealism? Provide a well-reasoned, logical argument to support your explanation.

Create-Conceptual-Art

Scenario: After a recent trip to the Museum of Modern Art you become fascinated with an exhibit featuring artists that employed automatism in their work, which you had not heard of before this trip. When you get home you wonder what other areas of artistic expression were included in the automatism movement. After some initial investigating you realize that many more forms of art beyond drawing and painting employed automatism in their creation.

Task: Construct a graphic that encompasses all artistic forms of automatism and expresses how each are similar and different. Include example artists and works of each form in the graphic.

Apply-Conceptual-Finance

Scenario: Last week your landlord informed you that your monthly rent for your apartment will be increasing. After some research you notice that the cost of owning a house may potentially be less expensive each month than continuing to rent. You speak to your friend who has a mortgage on a house to get more information on what it is like to have a mortgage each month. Your friend shares her last month's mortgage payment for you to look over. You notice that although the mortgage is withdrawn as a single payment, the payment itself is divided into distinct parts.

Task: Use your knowledge of mortgages to label the parts of the following monthly mortgage payment breakdown: \$690, \$410, \$200

Evaluate-Conceptual-Finance

Scenario: Last week your landlord informed you that your monthly rent for your apartment will be increasing. After some research you notice that the cost of owning a house may potentially be less expensive each month than continuing to rent. As a first-time home buyer you decide to get some basic information on obtaining, and the components of, home mortgages.

Task: Determine which component of a mortgage (down payment amount, interest rate, and date of maturity) is most critical for a first-time home buyer to negotiate when obtaining a mortgage. Provide a well-reasoned, logical argument to support your explanation.

Create-Conceptual-Finance

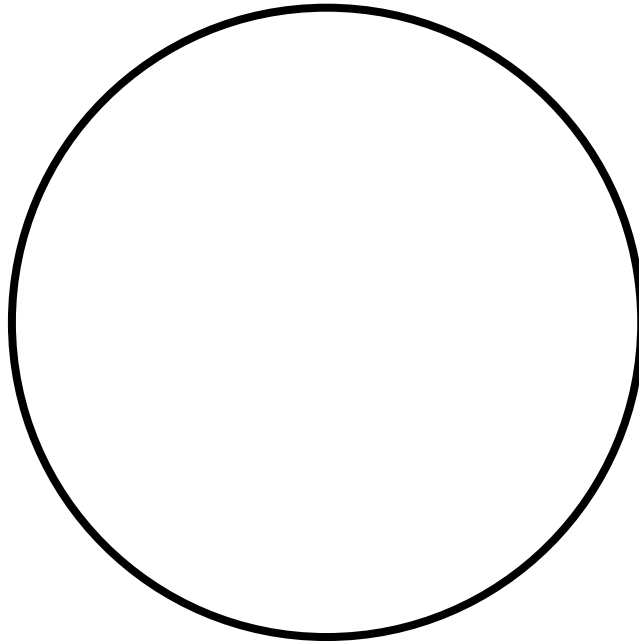
Scenario: Last week your landlord informed you that your monthly rent for your apartment will be increasing. After some research you notice that the cost of owning a house may potentially be less expensive each month than continuing to rent. You do some initial research on all of the associated expenses that go into buying a home.

Task: Construct a sample mortgage (with all of the typical mortgage components) that would be optimal for your personal monthly budget and amount of savings.

Apply-Procedural-Science

Scenario: You are building a firepit in your backyard. You have constructed a large circle so that chairs can fit around the firepit. You have not yet dug the firepit because you want to be sure that it is positioned precisely in the center of the circle.

Task: Find the mathematical center of the firepit circle shown below.



Evaluate-Procedural-Science

Scenario: You are building a firepit in your backyard. You have constructed a large circle so that chairs can fit around the firepit. You have not yet dug the firepit because you want to be sure that it is positioned precisely in the center of the circle.

Task: Find at least two different methods for finding the mathematical center of a circle and choose which would be best for finding the center of the firepit circle. Provide a well-reasoned, logical argument to support your explanation.

Create-Procedural-Science

Scenario: You are building a firepit in your backyard. You have constructed a large circle so that chairs can fit around the firepit. You have not yet dug the firepit because you want to be sure that it is positioned precisely in the center of the circle.

Task: Explore different methods for finding the mathematical center of a circle, then create a novel method for finding the mathematical center of the firepit circle. The method can be a completely different method from those you find, a combination of methods you find, and/or a method you find with slight variations.

Apply-Procedural-Art

Scenario: You are spending time with your nephew, who is 9 years old, and you want to think of fun activities you can do with him. You decide to look into different ways of making paper airplanes.

Task: Find a method for making a paper airplane and make that paper airplane.

Evaluate-Procedural-Art

Scenario: You are spending time with your nephew, who is 9 years old, and you want to think of fun activities you can do with him. You decide to look into different ways of making paper airplanes.

Task: Find at least two variations of paper airplane making and choose which would be the most fun and interesting for your nephew. Provide a well-reasoned, logical argument to support your explanation.

Create-Procedural-Art

Scenario: You are spending time with your nephew, who is 9 years old, and you want to think of fun activities you can do with him. You decide to look into different ways of making paper airplanes.

Task: Explore different methods for making paper airplanes, then create a novel method of making a paper airplane. The method can be a completely different method from those you find, a combination of methods you find, and/or a method you find with slight variations.

Apply-Procedural-Finance

Scenario: You are planning to take a vacation to Italy this summer and you realize you need to save \$2,000 for your trip. You decide that you need to find a budget that works for you in order to save the needed money. You find a method called the 50/30/20 budget and you think it might be effective for you. Find information on the 50/30/20 budget and at least one additional budget method.

Task: Use the 50/30/20 budget on the sample monthly expenses provided in order to learn more about its implementation.

(During the video, place a check in the most appropriate box next to each expense item and explain your reasoning)

Expense	50	30	20
Mortgage/rent			
Clothing, shoes, etc.			
401(k)			
Auto insurance			
Emergency fund			
Savings account			
Homeowners or renter's insurance			
Dining out			
Health insurance			
Gym or club memberships			
Property tax			
Alcohol			
Movie, concert, and event tickets			
Individual retirement account			
Other investments			

Evaluate-Procedural-Finance

Scenario: You are planning to take a vacation to Italy this summer and you realize you need to save \$2,000 for your trip. You decide that you need to find a budget that works for you in order to save the needed money. You find two different methods: one is called the 50/30/20 budget and one is called the "no" budget.

Task: Explain which of these budgets would be most effective for you in saving money for your trip. Provide a well-reasoned, logical argument to support your explanation.

Create-Procedural-Finance

Scenario: You are planning to take a vacation to Italy this summer and you realize you need to save \$2,000 for your trip. Your friend recently mentioned that she successfully saved money using the 50/30/20 budget. You decide that you need to find a budget that works for you in order to save the needed money.

Task: Explore different budgeting methods (including the 50/30/20), then create a novel budgeting method that is most useful to you in saving money for your trip. The method can be a completely different method from those you find, a combination of methods you find, and/or a method you find with slight variations.