Problem Solving Scenarios

Directions: Choose one of the scenarios listed below or develop one of your own with your teacher's approval. Complete the problem solving guide sheet.

1. Suppose you have decided to buy a new vehicle. You are undecided on what type to buy. You need something affordable both in payments and gas mileage and one that has enough room for the driver and at least three passengers. You will occasionally need to pull your family's fishing boat. You also want to choose something safe and dependable. Each type of vehicle has pros and cons; what would you decide to purchase?

2. Suppose you are starting your senior year of high school. You have decided you want to go to college after high school but you have not decided where. You also recognize that having in-state tuition offers the financial advantage because colleges charge more tuition for non-residents of the state where they are located. On the worksheet list the things that are most important to you such as location, cost, 2 or 4 year college, etc. What would you decide to do?

3. Around the same time that your cell phone accidentally gets dropped in the pool, your contract with your current cell phone provider runs out. Going without a cell phone isn’t an option since your parents require that you stay in touch when you are out with friends. You need to get a new cell phone and a new contract and you could do this by renewing your contract or by changing providers. Be sure to consider all the things most important to you such as text messaging, etc., and remember that you also need an affordable phone and plan since you will be paying for everything. What would you do?

4. Imagine you and your family are talking about getting a new dog. Your parents have told you that you can pick out what breed to get. Your parents don’t care about size, but the dog must be good with young children and calm enough to stay indoors sometimes. It is up to you to
decide what breed (and therefore what size) dog to get. You will be responsible for paying for the purchase price, vet bills, food and all other costs for the dog. What should you choose?

5. Suppose that similar to many high school students you are short on cash. You are debating about getting a part-time job but are unsure if this is a good idea. You need to be making some money, but since you are so involved in other activities and you need to keep your grades up, flexible hours are important too. What options do you have to earn money? You may want to consider owning your own business such as grass cutting, babysitting, dog walking, or giving horse back riding lessons. Also consider traditional jobs such as sales in a department for or being a waiter/waitress in a restaurant. Which would you choose?

6. You are president of a club at school and are trying to boost your membership. You have brainstormed a few ways to encourage more people to join, like more advertising of your meetings around the school, but you want something that would really encourage people to come. Whatever you do must be affordable since it will come from club dues and must be effective. What would you do to boost membership?

7. Suppose your family cat has fleas. Something has to be done. You have to pay for the flea treatments yourself and so you want the cheapest thing you can find that also works well. More expensive medicine may work better but you don’t actually know this. What would you do? Where can you find comparisons, recommendations, etc.?

8. Suppose you have been trying to save money for things like college, eating out, and gas but you really want an mp3 player for your music. You have several options such as the i-pod, the i-pod nano, the Sony Walkman, the Sandisk Sansa and the Microsoft Zune. Make a list of all the factors that you find important, such as price, storage space for music, size, how easy it is to use, what your friends have, etc. What decision would you make?
Problem Solving Guide Sheet

1. Recognize the problem. Write a short description of the situation and dilemma:

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2. Define the problem. Write about the specific dilemma. Be very specific about what needs to be decided.

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3. Determine possible solutions. Write a list of solutions you might consider. List several including the most logical solutions.

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4. Determine factors to evaluate solutions. List the factors to consider in the space provided.

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5. Test each possible solution. You may use the chart to test each solution against the factors. Remember that some factors are likely to be much more important than others.

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6. Select a workable solution. Write which solution you would choose. Explain in detail why you chose this solution. Use facts and logic. Refer to the factors in step 5 if necessary.
7. Carry out your solution. What are the steps to carrying out your solution? What problems might you encounter?