

**How Can GIS Help Us? --- GIS Applications in Various Fields**

**Answer Sheet**

Instructions: Using your favorite text editor or word processing software, type your name, teacher, date and answers next to the appropriate spaces after the colons. You are free to type in as many lines as you need (Just use the enter key on your keyboard.).

When finished, be sure to save your work as **yourLastName\_FirstName\_Mod2Answers.rtf** (example: Mary Smith would save her answers as **Smith\_Mary\_Mod2Answers.rtf**). Remember to save your answers frequently so you don't lose all of your work if something happens to the computer, the power goes out, etc! You will be reminded to do this.

**NAME:**  
**TEACHER:**  
**DATE:**

**[SAVE YOUR WORK NOW!]**

-----  
Begin Typing Your Answers to the Learning Module Exercises. Do not simply type in the answers without doing the exercises in the Learning Module. Make sure you type in the answers in the appropriate spaces after the colons.

**A-1:** Is the Google Map Street View imagery real-time?

---

**A-2:** Where does Street View imagery come from? When were these pictures taken? Does Google accept photo submissions from individuals?

---

**A-3:** Can you see people in the street view imagery? Does Street View violate the privacy of people if they were taken in the imagery?

---

**A-4:** Please key in your home or school address. Is street view available in this area? Is the imagery the same as you see now?

---

**[SAVE YOUR WORK NOW!]**

**A-5:** How often does the traffic map update? Is this automatic?

---

**A-6:** How do the different colors indicate congestion levels in the Traffic Congestion layer? (Hint: the speed)

---

**A-7:** Does the map provide all the freeway traffic information in San Diego?

---

**A-8:** Click the tool button “Driving time”; first, choose any place you are interested in as a starting point. Once the dots have turned magenta, select your destination (see Figure 2-4). Click on the link for “click for more details on trip” to record the following information: the distance; estimated time; traffic congestion (Hint: the color of the highway); and max, min, and average speed limit for each highway.

---

**[SAVE YOUR WORK NOW!]**

**B-1:** Why do you see shadows in “pict\_28102007221604.jpg” image?

---

**B-2:** When comparing the “pan\_img\_0198\_georef.jpg” and “pano\_img\_0907\_georef.jpg” images, why do you see a “fog” over certain parts of the images?

---

**B-3:** Which part in the image shows the areas destroyed by the wildfire? (Hint: the red lines)

---

**B-4:** There are two white areas in this image. What is the difference of these two white areas? (Hint: consider the reflect light of water and the feather of satellite images)

---

**B-5:** See the first images of this page. According to the direction of the white smoke shown on the images, try to predict the direction of the wildfire spreading? (Hint: think of the direction of wind.)

---

**[SAVE YOUR WORK NOW!]**

**B-6:** How many shelters you can find on the image?

---

**B-7:** We can see that the shelter in Peirce (Olive) Middle School is so closed to the burned are; what do you think could be the reason that the government set up such a shelter quite near to the burned area?

---

**B-8:** According to this map, if you are the chief of San Diego fire department, how would you distribute the resources and manpower to put out the wildfire? Which part should be the most important areas on Oct. 26?

---

**B-9:** What do the different colors of the arrows mean in the wind direction map?

---

**[SAVE YOUR WORK NOW!]**

**B-10:** Please simply describe the wind direction change from Oct. 21 to 29.

---

**B-11:** Compare the original satellite images (without any high way or roads) and the GIS enhanced images (with high ways), which kind of images are more useful? Why?

---

**[SAVE YOUR WORK NOW!]**

**C-1:** Based on the Crimes that you mapped, what types of incidents are most frequent around the area you selected?

---

**C-2:** Based on the new information that is displayed, what types of Traffic-related incidents are most common on your redisplayed map?

---

**C-3:** Based on the new information that is displayed, what types of Arrests and Citation incidents are most common on your redisplayed map?

---

**[SAVE YOUR WORK NOW!]**

**D-1:** What is the street name of your selected home?

---

**D-2:** What is the estimated value of your selected home?

---

**D-3:** What is the estimated value of the neighboring property to the east of your selected home?

---

**D-4:** What is the estimated value of the neighboring property to the west of your selected home?

---

**D-5:** Is there any difference in the estimated values between the three properties (original selected home, one to the east, and one to the west)?

---

**D-6:** Is the property that you selected larger or smaller than the other two neighboring houses and does this difference seem to affect the housing costs?

---

**D-7:** If you wanted to buy a home in San Diego, how could you use this Website to help you to select the house?

---

**D-8:** If you wanted to sell a home in San Diego, how could you use this Website to help you to select the house?

---

**[SAVE YOUR WORK NOW!]**

**E-1:** Where did the pollutants come from?

---

**E-2:** Where did the pollutants end up?

---

**E-3:** What can you do to help keep San Diego Bay clean?

---

**E-4:** The word “Analyte” describes the substance that is being analyzed. In this application, the analytes are the substances measured in water. In your database query result of water quality data, what is the first ANALYTE listed?

---

**E-5:** For this analyte, what is its corresponding RESULT value and UNIT?

---

**E-6:** What do the RESULT value and UNIT represent?

---

**E-7:** How can you use this system to monitor the water quality in your neighborhood?

---

**[SAVE YOUR WORK NOW!]**

**F-1:** Please write down your selected Website:

---

**F-2:** Please write down a short summary (100 words) of your selected Website's purpose and its major GIS/Mapping functions:

---

---

**[SAVE YOUR WORK NOW!]**

**G-1:** In your paragraph, please highlight five different applications of GIS. Can you think of ONE additional new application area that was not mentioned in this learning exercise? Please mention it if you can think of one.

**G-2:** In your paragraph, please discuss which application you liked the best and tell us WHY? Do you think that this GIS application can help people? How can it help people?

**G-3:** In your paragraph, please tell us if it was difficult or easy to access the Web GIS maps using your Web browser. Why was it easy or difficult?

---

---

---

When finished, be sure to save your work as **yourLastName\_FirstName\_Mod2Answers.rtf** (example: Mary Smith would save her answers as **Smith\_Mary\_Mod2Answers.rtf**). Follow your teacher's instructions for "handing in" your work.

CONGRATULATIONS! YOU ARE FINISHED WITH MODULE 2! YOU ARE WELL ON YOUR WAY TO EARNING THE NATIONAL SCIENCE FOUNDATION-ADVANCED TECHNOLOGICAL EDUCATION GIS CAREER AWARENESS PROGRAM CERTIFICATE FROM THIS PROJECT.

## Module # 2

Student Survey Questions ( You are required to finish this Student Survey and please send it back to the San Diego State University NSF-ATE team).

Type your short answers here or visit

<http://geoinfo.sdsu.edu/hightech/contactUs.htm> and submit your responses online using the Web mail form. Thanks!

**S-1:** What did you like best about this learning module two? Why?

---

---

---

---

**S-2:** What did you like least about this learning module two? Why?

---

---

---

---

**S-3:** Was there anything that was really hard to understand or difficult to complete in this module two? What was it? Why?

---

---

---

---

**S-4:** Is there anything in this learning module two that we can add, exclude, or change to make it better? What is it? Why?

---

---

---

---