

Placing a Hospital in San Francisco

The Task: Analyze the city of San Francisco and find the optimal location for a new hospital.

How To:

More detailed instructions for each step follow.

1. Complete the Preview Activities
2. Use ArcGIS Online maps to analyze the social and physical characteristics of San Francisco.
3. Choose a location for the hospital and write up a proposal.

Grading: Project – 50 points

Accuracy and Completeness (20 points)

All components of assignment are complete with the expected information.
All information provided is correct.

Effort and Thought (20 points)

Work demonstrates consideration and thorough understanding of the information.
Assignment shows effort and creativity (when appropriate).

Overall Quality (10 points)

COPS!!
Assignment is neat and looks nice.

Preview Activities

Use the sites on <http://wke.lt/w/s/gRzYM> to learn about earthquakes, San Francisco and earthquakes in San Francisco! The link is also on my website at afsahighschool.com.

EARTHQUAKES

Describe where earthquakes occur, generally speaking and specifically.

What causes earthquakes? (Be sure to mention different types of faults)

Why do some earthquakes cause more damage than others?

What is the San Andreas Fault? Why is it a fault that we are concerned about?

SAN FRANCISCO, CALIFORNIA

What are some key characteristics of San Francisco? What makes the city unique?

Why are we concerned about earthquakes in San Francisco?

How common are earthquakes in San Francisco? How serious are the earthquakes in San Francisco?

There been two very serious earthquakes in the San Francisco area (1906 and 1989). Describe each earthquake and its effects.

1906:

1989:

Go to <https://afsa.maps.arcgis.com/home/signin.html> and log in.

1. Click on "Groups" at the top of the page.
2. Click on your class's group name.
3. Click on "Placing a Hospital in San Francisco".
4. Click on "Open in Map Viewer"
5. ***BEFORE YOU DO ANYTHING ELSE – use the save icon to "Save as" to save the map in your own content so that you don't accidentally make changes to the file.***

Analysis Table for San Francisco

Using the "Placing a Hospital in San Francisco" ArcGIS map analyze the city of San Francisco to find the best location for a hospital. Be DETAILED and SPECIFIC, especially in the "ArcGIS Information" column.

Factor	Why is this factor important when choosing a hospital location?	Describe this feature throughout San Francisco as shown in ArcGIS maps.
Fault Locations and Previous Earthquakes		
Earthquake Shaking Potential		
Liquefaction		
Landslides		
Tsunami Risk Zones		

Elevation		
Healthcare Facilities		
Population Density		
Income Levels		
Housing		

Placing the Hospital

1. Choose a location for your hospital.
2. Create a new map, and place a Map Note where you want to place your hospital.
3. Save your map – name it: YOURNAME Hospital Map (i.e. NELSON Hospital Map)
4. Share map with your class group.
5. Answer the following questions for your justification.
 - a. Describe the location where you placed the hospital using the characteristics in the analysis table.

 - b. Change the “Basemap” to “Imagery With Labels” or one of the Street Maps. What is currently in the location where you are going to build the hospital? Will this be a problem? Why or why not?

 - c. Use the “Parcel Hazard Exposure” layer on the map and describe any hazards that are associated with this location.

 - d. What are the benefits of this location?

 - e. What are the drawbacks of this location?