

SIOP® Lesson Plan Template 1

Date: Open

Unit/Theme: Criminal Law and Procedure

Subject: GIS Crime Analysis

Grade: 10-12

Standards:

CCSS.ELA-Literacy.RI.9-10.1 -Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

CCSS.ELA-Literacy.RST.9-10.9

Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.

CCSS.ELA-Literacy.W.9-10.2

Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

Objectives: SWBAT:

- **Analyze one feature of violent crime to obtain a basic understanding of the role of geographic information systems in law enforcement.**
- **Practice linguistic skills by using key legal terms from SUTW 3- column vocabulary breakdown.**

Key Vocabulary

Geographic information systems, poverty, crime, homicide, arrest, warrant, miranda rights, probable cause, reasonable suspicion, interrogation, custody.

Supplementary Materials

Textbook, Smart board, Handouts, Rulers, Internet, Index Cards, Balloons.

See attached

<http://www.esri.com/library/brochures/pdfs/crime-analysis.pdf>

pdf on GIS in law enforcement

<http://www.esri.com/industries/public-safety/law-enforcement>

GIS in law enforcement videos

SIOP FEATURES

Preparation Adaptation Modeling Links to background Links to past learning Strategies incorporated	Scaffolding Modeling Independent practice Guided Practice Comprehensible Input	Group Options Whole class Small groups Partners Independent
Integration of Processes Reading Writing Speaking Listening	Application Hands-on Meaningful Linked to objective Promotes Engagement	Assessment Individual Group Written Oral

Lesson Sequence:

Overview

Geographic profiling, predictive policing, and crime modeling are among the latest buzz words to describe the use of geographic information systems in law enforcement. Just as the public's love affair with forensic science has made such shows as criminal minds, and CSI popular prime time shows, the intriguing idea of predicting crime has put GIS on the map (pun intended). Shows such as "The District" brought the concept of GIS to our living rooms. This technology is all about answering the five W's:

- **What** happened?
- **Who** was involved?
- **Where** did it take place?
- **When** did it take place?
- **Why** did that happen?

This being the case, GIS is an invaluable asset to law enforcement. It assists with crime analysis by identifying suspicious incidents, analyzing and predicting trends, and providing tools and techniques to capture criminals. This lesson will introduce students to geographic information systems via ArcGIS software. Student will create a story map and perform data analysis on crime concentrations in various areas of Buffalo, New York.

Lesson:

Day 1

1. SUTW vocabulary breakdown and review. (Approximately 15 min)

*NYSUT Rubric indicator I.2.A

2. Topic inquiry and discussion. Geographic Information Systems – what are they, and how are they used? (Approximately 20/25 min)

***NYSUT Rubric indicator III.3.B.; NYSUT Rubric indicator IV.1.A**

- **Students will explore google earth features such as street view to explore and collect data on areas of criminal activity.**



- **Students will also be given an opportunity to explore the various features of Google earth such as 3D buildings, flight simulator, and panoramic photos. (Approximately 10 min)**

***NYSUT Rubric indicator II.2.B.; NYSUT Rubric indicator V.5.B**

Day 2

Students will watch a short video from ESRI.com to note the various ways of incorporating GIS into law enforcement. (5 mins)

Teacher will use direct instruction to give students an overview of ArcGis story-maps. Students will follow along on their computers to navigate the steps of making a story-map. Additionally, students will view the teacher made story-map as a reference tool. (20min)

Students will use data from my story-map to answer their worksheet questions attached below. (15-20 min)

Directions: Go to the story map at the attached link <http://arcg.is/2h5iYHg> Examine the map. After exploring the material, answer the attached questions.

1. How many homicides are under investigation in the city of Buffalo?

2. How many homicides have been cleared?
3. What part of Buffalo did the majority of these homicides occur? (East side, West side, Northside - you can cite specific zip codes to further explain your answers)
4. Using Google maps Street view to explore the surrounding neighborhood of five of the listed homicides

- What do you notice:
How many abandoned homes are on the street in which the homicide took place?
- How many street cameras do you see?
- What do the sidewalks/ streets look like... are they well-kept or do you see lots of cracks and broken pieces of cement?
- Is the street well-kept or do you see broken glass and other pieces of litter in the area?
- How do the houses look – are they well-kept or do you see chipped paint, broken siding, Mix-matched roofing, missing shingles on the roof....
- Do you see grocery markets or corner stores? (Groceries are usually more expensive in corner stores)

6. How do you feel about the results of your search? Do you think that the data reveals that the homicides occurred in neighborhoods that are considered low income, medium income or high income neighborhoods?

7. Based on the data you collected, what inferences can you make about violent crimes/homicides and high poverty neighborhoods?

8. Based on the map and the data you found, what do you think would decrease a person's chances of being a victim of a homicide – explain?

9. How does the data affect you personally? (How do feel about the results)?

Day 3

Students will develop their own story-maps.

Explicit Instruction:

- **The objective will be clearly stated.**
- **Students will follow a daily routine.**
- **The teacher will ask direct and pointed questions.**

Reflections:

Students will keep reflective journals detailing what was covered each day and how they can use the information. Journals must include the following information:

1.The main point of the lesson/what the student learned.

- 2.Does it match the class objective and how so.**
- 3.How can the student use this information (life, school, work)**
- 4. Students must use a picture or diagram illustrating class learning.**
- 5. Students must include a vocabulary word and definition from the chapter.**

Assessments:

Students will be assessed in multiple ways throughout the unit.

- 1.The opening activity will be used to review vocabulary and key points each day.**
- 2.Students will complete journals for weekly submission.**
- 3.Students will complete essays, projects and labs that will be assessed using task specific rubrics.**
- 4.Student will complete written tests at the end of each chapter.**
- 5.Students will complete at least one performance assessment per chapter.**

Differeniation:

1. By task - this teacher will not provide different work sheets amongst students as it tends to create negative feelings. Students often make comments about students receiving easier work because their slow.

This teacher will provide worksheets with varing levels of questions. Students that need more challenging work will quickly tackle the challenging questions, and will continue to be engaged while other students are working at their levels.

2. Mixed ability groups - this teacher will allow student to work in groups with a mixed level of students. Higher ability students can assist others in areas in which they may struggle.

3. Tools - this teacher will allow a variety of resources to complete assignments. For example some students respond to games, notetaking, and index cards while others will appreciate computer applications such as Prezi, kahoot or quizlet. These tools allow students to practice vocabulary, create presentations, and emphasize concepts.

4. Pace - students work at different rates of speed. In efforts to avoid hindering faster workers, a list of options will be provided for those that have completed the current assignment. The list will be posted in the classroom.

IEP's and 504's

1.When possible students will be given perferential seating near the teacher, or away from distractions.

2. Task redirection and on task prompts.

3. Additional time to complete tests/tasks where reasonable.

4. Frequent use of student's name.

Feedback:

Introdction to new topics can present a challenge, which will present a measure of frustration at times. Students are expected to grapple with information to build problem solving skills. This teacher will assist students in working through this process by helping students develop reasoning skills. This teacher will move throughout the classroom during independent work and group assignments. When students are unsure, the teacher will use auxillary questions to help students deduce appropriate answers. When needed, the teacher will adjust class time to re-teach concepts that seem to be a problem for most of the class. This teacher will provide commendation for diligent efforts and highlight the results of working through challenges.

(Reproduction of this material is restricted to use with Echevarria, Vogt, and Short, 2008. *Making Content Comprehensible for English Learners: The SIOP® Model.*)

Lesson Vocabulary

1. **Arrest** – when a person has been taken into police custody and is no longer free to leave or move about.
2. **Warrant** – a document issued by a legal or government official authorizing the police or some other body to make an arrest, search premises, or carry out some other action relating to the administration of justice:
3. **Miranda Warnings** – can also be referred to as the Miranda rights, is a right to silence warning given by police in the United States to criminal suspects in police custody (or in a custodial interrogation) before they are interrogated to preserve the admissibility of their statements against them in criminal proceedings
4. **Probable Cause** - generally refers to the requirement in criminal law that police have adequate reason to arrest someone, conduct a search, or seize property relating to an alleged crime.
5. **Reasonable Suspicion** – is the legal standard by which a police officer has the right to briefly detain a suspect for investigatory purposes and frisk the outside of their clothing for weapons, but not drugs.
6. **Interrogation**- the questioning or interviewing of a suspect.
7. **Custody** - occurs when someone is arrested, or under other circumstances where the suspect submits to the authority of a police officer