Behavioral Science
Inequality in Access

<u>Introduction</u>: Students will be comparing the relationship between different groups and their access to natural places and healthy environments. Through completing a spatial analysis using ArcGIS and Storymaps students will be looking at the differences (if any) between access, participation, and attendance to natural areas or activities on a local, state, or national level. This could be done through the lens of "Marginalized communities," "Environmental Justice," or a metric of the student's choosing. Students will decide the data metrics to further examine after completing classroom instruction in the different societal "categorizations" that are commonly used. They will then choose a further group to examine and look further at how that particular group of people interacts with the environment and/or is affected by the environment. Data will be collected, mapped, and shared using ArcGIS and Storymaps.

<u>End Product</u>: Multi-Part StoryMap (5 Sections)

Section 1: Introduction to Particular Social Construct
   +   Literature Review

Section 2: Defining Research Scope

Section 3: Presentation of Data Collected

Section 4: Analysis of Data

Section 5: Conclusions

Section1: Introducing the Social Construct

Directions: In this section you will be working to establish the scope of your project and reviewing relevant sources about the group, and their access to natural/wild spaces on a local, state-wide, or national scale.

Social Construct: _____

Source 1 (APA Format): Ex.

Article:
Bednarz, S. W., Heffron, S. G., & Solem, M. (2014). Geography standards in the United States: past influences and future prospects. International Research in Geographical & Environmental Education, 23(1), 79–89.

Database
College Board, The (2018). Research: Exam data for administrations since 1997, https://research.collegeboard.org/programs/ap/data/archived (Accessed April 22, 2018)

Source 1: Summary -

Source 2 (APA Format):

Source 2: Summary -

Source 3 (APA Format):

Source 3: Summary - Note - Source 3 should be an opposite view from sources 1&2

Section 2: Defining Research Scope

<u>Directions</u>: Follow the following steps to brainstorm what your project will be about and how you will go about conducting it.

A.Come up with a draft inquiry question:

B. Which Scale will you be examining this issue?

C. What data will you be examining? For each data point explain why it will help you in answering your inquiry question.

    1.

    2.

    3.

D. Review your inquiry question - is it complex? (can not be answered yes or no), is the scale included as part of the question? Does it connect to an issue of environmental justice? Revise your question and write the new question below.

E. Include a couple of sentences why this question is important to answer.

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F. Include a couple of sentences of what process you will go through to complete your study.

In your story map
- Write your research question near the top
- Add a paragraph about your method - the data you plan to collect and how you plan to organize it and visualize it
- Add a paragraph explaining why this particular study is necessary, and what you anticipate finding out (hypothesis)

Section 3: Presentation of Data Collected

<u>Directions</u>: Here you will actually be collecting your data as per your research scope and coming up with at least one spatial visualization and one alternate form of data visualization.

Data Visualization.
- Make a visualization of your data as a map using ArcGIS.com
- Make a visualization of other parts of your data as a graph, chart, table, etc…

Section 4: Analysis of Data

<u>Directions</u>: Once the data is collected you will be breaking down your results and explaining trends and patterns in the data which you reviewed.

- In your story map you will do the following things (In a page worth of detail)
    - Explain your results (without getting into any conclusions)
        - Here you are simply explaining what your data was
    - Explain what your difficulties were in collecting data, what was easy?
        - Where were the gaps in the data?
    - What are the major trends, patterns, and connections in the data?
        - Has there been a change over time?

Incorporate the page worth of analysis into your StoryMap

Section 5: Conclusion

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<u>Directions</u>: In your story map answer the following question by supporting them with your data, and information from appropriate sources.

- What does the data show in your opinion?
- What can possibly be done to correct any deficiencies?
- What are some possible explanations for the data? (make sure you connect these back to your literature.)
- What areas for further study are there? What are the limitations of your own study?
- What are the impacts that your data show on societal connections and the socialization of individuals? - Basically, why is this a problem for society?

Metric	Advanced	Reaching	Beginning
Section 1	Relevant sourcework incorporated frequently with appropriate citation	Sources used, but more context necessary. Citations in proper format but lacking in-text citation	Sources mentioned but not specifically used as reference material. Citations missing or incomplete
Section 2	Appropriate selection of scope and scale, with proper explanation of process	Question present but further development needed. Further explanation of process and goals of project are needed	Present, but lacking detail in questioning or procedure
Section 3	Professional and well developed visuals and presentation of data. Spatial data and graphic organizer well laid out.	Data visuals present but needing further context and explanation. Lacking elements or explanations.	Data visualization or presentation incomplete or appears rushed with many errors
Section 4	Data thoroughly explained with explicit connection to results of study.	Explanation present but needing further connection between data sets or expansion of ideas.	Section limited or incomplete. Need much more explanation of trends or patterns
Section 5	Conclusions well connected to data with links to source materials and appropriate in-text citation	All points present but further analysis needed with closer ties to data and source materials	Conclusions made but needing further connections to source materials and data. Missing significant elements