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Title of Lesson:
Population shift 1950-2010 (graph creation) - (part 1)
Grade level:
8 th Grade
Summary: Population decrease is a major concern in West Virginia. With the change in WV
industry, the aging population, and the lack of major cities / job opportunities WV's population may
continue to decrease. To begin to look into our shift of population students need to understand the
census and how it is useful. They need to see how our state is changing.
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WV CCR Social Studies Standards:

## SS.8.15

Investigate climate, landforms, natural resources, and population density in WV's geographical regions using special purpose maps and evaluate the impact of people's lives and settlement patterns using GIS, topographical maps, climate, and census maps

Students will know and understand (content) (Essential Questions):
How has WV's population changed since 1950?
What county has had a major shift in population throughout the decades?
What is one age group that we have we seen have a large decline?
How is population broken down when census data is collected?
What the census?

Students will be able to do (skills):
Analyze 2010 population data through a special purpose map
Develop a visual representation by chart or graph showing the change in population by decade Create a visual that shows the largest shift in the appropriate part of the state

## Materials \& Resources:

- computer
- suggested websites
- graph generator

Learning Plan:

Intro: Start by asking, How do we know the population of WV? The ages? Discuss their responses. When they start to include the concept of a census have them pull up the following website: https://countallkids.org/what-is-the-census/ - have the kids explore the short website - draw conclusions on what the census is, how it's used and why a lot of times kids are missed in the census data

Activity - The most recent census (2010) shows the most up to date information on the population of WV - Have students look at the census viewer (interactive map that provides the census data
from 2010) discuss what they see. See if they can come up with 5 questions that could be answered using the census viewer)

- After that tell the students we are going to shift and look at past data, we are going to draw conclusions using different types of graphs
- Here is a review of different types of graphs if the students need a quick recap https://www.lcps.org/cms/lib4/va01000195/centricity/domain/10878/notesandhw.pdf
- Have the students look at the following article that recaps WV census data - explain how the information is being broken down by the census year http://www.wvdhhr.org/bph/hsc/pubs/briefs/008/default.htm
- The students will be reviewing and gathering information from the report to create a line graph of the population shift from 1950 to 2010 (getting 2010 info from the census viewer we used first) and additional graphs that convey shifts
o For example, you may want them to do a graph showing the population changes of a particular county over time or a particular age group
- You may want them to create a circle graph showing what percentage of WV's population is made up by the 3 densest counties
- Students can share the graphs they create and share those shifts and conclusions that were drawn from the data they gathered

Checking for Understanding:

- Creation of graphs
- Discussion on census
- Use of census viewer

Accommodations:

- Limiting the number of additional graphs
- Outline of census info
- Completing graphs by hand
- Extension - comparing population shift to answer state and finding further census data


## West Virginia Studies Resource Development

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Title of Lesson:
Population shift 1950-2010 - but why? (Part 2)
Grade level:
8 th Grade
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Summary: Now that students have gotten a grasp on the census, the population shift. We need to look at the why. Why is the population in WV decreasing? What is causing people to leave? Thinking about the future - is there hope and if so, what is that hope?

WV CCR Social Studies Standards:
SS.8.15
Investigate climate, landforms, natural resources, and population density in WV's geographical regions using special purpose maps and evaluate the impact of people's lives and settlement patterns using GIS, topographical maps, climate and census maps

Students will know and understand (content) (Essential Questions):
What has caused the downward shift in WV's population?
Is there hope for the future of the state to stop this downward spiral?
Students will be able to do (skills):
Research the causes of the decrease in population
Analyze the findings of the decline
Make predictions on how WV could recover from this shift

Materials \& Resources:

- computer
- suggested websites
- graphic organizer
- essay review (obtain from 8th grade English teacher to be consistent with what they are learning

Learning Plan:
Intro: Review the findings from the census lesson and then share/show the graphs that were created. Discuss the concerns with the decline in population. Tell the students it is now time to gather more information. We need to understand the "why" in order to try to predict what WV and its leaders can do for the future of the state.

Activity - Students will be reading recent news articles to draw conclusions as to why our state population has been declining. Their goal will be to come up with 3 major reasons for the decline and utilize the graphic organizer below to help them gather their thoughts (they will continue to branch off or they can draw their own on paper).
NOTE: Before completing this assignment, I pair up with the English teachers to obtain their normal essay writing format/ideas for support as to try to help the students grow in the essay writing that they are accustomed to.

Here is a list of articles as a foundation but you could definitely expand:

- https://www.wvgazettemail.com/news/wv-one-of-two-states-with-population-decline-over-past/article a34ce34b-3bd6-5a68-9838-d399c4cb7247.html
- https://www.wsaz.com/content/news/West-Virginia-population-drops-by-more-than-11000-503258441.html
- https://www.herald-dispatch.com/opinion/editorial-w-va-population-decline-points-to-larger-problems/article_6d37c51c-22b0-5d14-be83-1912b3cbc4b2.html
- http://worldpopulationreview.com/states/west-virginia-population/
- https://www.wtrf.com/news/u-s-census-west-virginia-population-on-6-year-decline/
- https://www.register-herald.com/news/outmigration-west-virginia-s-population-decline/article_98ff5f5a-29a1-5779-8c69-2f69c680ba76.html
- http://www.newsandsentinel.com/opinion/editorials/2018/12/population-west-virginia-must-reverse-declining-numbers/

These are just a few that have been written in recent years

After the students have gathered information - have them transfer their 3 major reasons and facts or explanations to the chart below. Their next job is to consider how do we combat each of these issues - what is the fix? Is there a fix? Does WV need to make some kind of shift? If so - how?

During this time (and research time as well) there is a lot of 1-on-1 time spent discussing, sometimes helping outlines begin, answering questions and providing guidance.

Before the writing begins - this is where I review the English teacher's protocol. I normally touch on the following

- How they like them to assemble their 5-paragraph essay
- How to write an intro paragraph especially the thesis
- How to connect your first sentence of each supporting paragraph with your facts and ways to combat repetition
- How to write a conclusion

Writing Rough draft - as students are writing this again calls for a lot of 1-on-1. Most of the class period is spent rotating through all the students making sure that they understand the writing process as well as having the information to support their writing

After rough draft I normally do peer editing and then they submit the final copy to me
In addition, we normally share our essays as it fosters good discussion and allows for a better understanding for all students

Checking for Understanding:

- Initial review discussion
- 1-on-1 meetings during research and writing
- Final paper

Accommodations:

- modified writing / research expectations
- additional outlining or guidance through research
- Limited resources when researching
- Fill in the blank type of writing


| Population Decline <br> (Reason) | Explanation of the Decline | How to combat |
| :--- | :--- | :--- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |

