

Conflict by the Numbers Project

Common Core Alignment

G.MG.3: Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).*

S.IC.6: Evaluate reports based on data.

Recently, we have been learning about ratios and proportions. Ratios and proportions have been used to define similarity. More specifically in Geometry, we use ratio and proportions to find scale factors to determine if polygons are similar or not. You will be applying your knowledge of ratios, proportions, and similarity to your Exhibition on Conflict.

You will be creating a booklet that dives into the conflict of war. The United States has fought in many wars throughout its history and each war has affected our country in different ways. Which war has affected our country the most? What factors led to the results of each war? How does conflict impact the involvement of a war? These are the guiding question you will look to answer through your research and calculations.

So what do I need to do to complete my booklet?

- You will be using iBooks author to create a booklet.
- You will need to research and gather information on two of the wars listed on your data sheet.
- Your research should include items like:
 - What caused the conflict for the United States to get involved?
 - Brief background/history of the conflict
 - How long the United States was involved in the conflict?
 - How many soldiers served in the war
 - How many soldiers died in the war
 - How many casualties (died and wounded) from the war
 - Was the conflict resolved? (What was the outcome of the war?)
- You will include ratios, proportions, and similarity statements into your booklet.
- You should include pictures to enhance the booklets.
- You will be required to cite your sources using MLA formatting

To fight and conquer in all your battles is not supreme excellence;
supreme excellence consists in breaking the enemy's resistance without
fighting.

-Sun Tzu, the Art of War

Potential Booklet Layout

Front Cover:

- Title should read “Conflict by the Numbers: The Story of Conflict Through Math”
- Must answer the following questions: “What is conflict?” and “How does numbers and math help us to tell a story of conflict?”

Chapter 1: Overview of Wars

- Provide introduction to the section. What is the purpose at looking at each war?
- Include the main U.S fought wars with information that includes:
 - Length of Conflict (Dates)
 - Total # of soldiers served
 - Total Deaths
 - Ratio of Total Served to Total deaths (**Taken from #2a in packet**)
 - Total Casualties (Death + Wounded)
 - Ratio of Total Served to Total Casualties (**Taken from #3a in packet**)
 - Total Cost of War in Peak Year (in present year currency) with %-age of GDP
- **Graphical Representation:** Make a graph that shows the comparison of ratios for each war you found on page one. You may choose between four options:
 - **# Served: # dead** (bar graph)
 - **# Served: # casualties** (bar graph)
 - **# Dead: # years** (bar graph)
 - **# Casualties: # years** (bar graph)
- **Writing Component #1:** Looking at the information presented in the booklet (excluding the calculated ratios), which conflict of war has been the most devastating to the United States? Justify your answer with reasons.
- **Writing Component #2:** Looking only at the ratios you have found, what does the math say was the most devastating to the United States? Justify your answer by using your knowledge of ratios to explain.

Chapter 2: War #1 Information

- **Writing Component #1:** Include brief history of war (e.g. years fought, what caused it, events/impacts it had, key people/players involved, was it resolved, etc.)
- Include the following statistics of your chosen war:
 - Total served
 - Total deaths
 - Total casualties (total deaths + total wounded)
 - Cost of war (**From 6a**)
 - Rewrite the simplified ratio of total number of soldiers served to the total number of deaths. (**Taken from #2a**)
 - Explanation of what this ratio means
 - Write a new simplified ratio of total number of soldiers served to the total number of casualties (**Taken from #3a**)
 - Explanation of what this ratio means

- Write the simplified ratio of total number of soldiers died to the total number of years fought. **(Taken from #4a)**
 - Explanation of what this ratio means
- Write a new simplified ratio of total number of soldier casualties to the total number of years fought **(Taken from #5a)**
 - Explanation of what this ratio means

Chapter 3: War #2 Information

- **Writing Component #1:** Include brief history of war (e.g. years fought, what caused it, events/impacts it had, was it resolved, etc.) **(From 7a in your packet)**
- Include the following statistics of your chosen war:
 - Total served
 - Total deaths
 - Total casualties (total deaths + total wounded)
 - Cost of war **(From 6a)**
 - Rewrite the simplified ratio of total number of soldiers served to the total number of deaths. **(Taken from #2a)**
 - Explanation of what this ratio means
 - Write a new simplified ratio of total number of soldiers served to the total number of casualties **(Taken from #3a)**
 - Explanation of what this ratio means
 - Write the simplified ratio of total number of soldiers died to the total number of years fought. **(Taken from #4a)**
 - Explanation of what this ratio means
 - Write a new simplified ratio of total number of soldier casualties to the total number of years fought **(Taken from #5a)**
 - Explanation of what this ratio means

Chapter 4: War Comparison

- **Writing Component #1:** Using complete sentences:
 - Explain what a proportion is and how they are used to show similarity.
 - Explain the process you used to show similar comparison between your two wars.
- Include proportions to show similarity of your two wars:
 - Using your proportion statement from #7b, (total casualties) solve for x to show the results if the wars were similar to each other.
- **Writing Component #2:** Explain what the outcomes of your answer you found from #7b proportions mean. Which war was more devastating in terms of deaths and total casualties? **(Same as your answer from 7d)**
 - Using your proportion statement from #8a, (total casualties) solve for x to show the results if the wars were similar to each other.
- **Writing Component #3:** Explain what the outcomes of your answer you found from #8a proportions mean. Which war was more devastating in terms of number of years? **(Same as your answer from 8c)**

- **Writing Component #4:** Looking at the different results of each war, why might these differences exist? What factors lead to the results you have found? (Example: Technology of Weapons)

Chapter 5: Wisconsin's Contribution

- Include the following statistics about Wisconsin's contribution toward each possible conflict:
 - Total served
 - Total deaths
 - Rewrite the simplified ratio of total number of Wisconsin soldiers served to the total number of Wisconsin deaths. **(Taken from #11)**
 - Rewrite a simplified ratio of total number of soldiers served to the total number of deaths **(Taken from #2a)**
- **Writing Component #1:** When comparing the conflicts the United States and Wisconsin soldiers have participated in throughout history, which felt more of a devastating impact, those who served the nation as a whole or those that came specifically from the state of Wisconsin? Justify your answer by using your knowledge of ratios to explain. **(#12b from your packet)**
- Include the %-age of the current living veteran population in southeast Wisconsin compared to the entire state. (Both county %-age and combined county %-age) **(Taken from #10 in packet)**
- Include the Wisconsin veteran compensation pay for disabled veterans with an average family size of 3. **(Taken from #13a)**. Include the total cost of each degree of disability as well as the total cost to support disabled veterans in the state of Wisconsin.
- **Writing Component #2:** Looking at the compensation amounts a WI veteran makes a year, do you think they are appropriately paid? In other words, for a veteran who returned from service and becomes a member of the Veterans Association, do you think the compensation they make a year is an appropriate amount to pay them for their time of service or are they making too much or too little? **(Taken from 13b)**
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Chapter 6: Works Cited

- Site your sources in MLA format

Citation for Data Information Given in Class:

Principal War Data:

"DoD Principal Wars - U.S. Military Personnel Serving and Casualties." *Defense Casualty Analysis System*. Department of Defense, 01 Mar 2013. Web. 3 Mar 2013. <https://www.dmdc.osd.mil/dcas/pages/report_principal_wars.xhtml?id=7>.

Operation New Dawn Data:

"Operation New Dawn (OND) Casualties by Category." *Defense Casualty Analysis System*. Department of Defense, 01 Mar 2013. Web. 3 Mar 2013. <https://www.dmdc.osd.mil/dcas/pages/report_ond_type.xhtml>.

Operation Enduring Freedom Data:

"Operation Enduring Freedom (OEF) Casualties by Category." *Defense Casualty Analysis System*. Department of Defense, 03 Mar 2013. Web. 3 Mar 2013. <https://www.dmdc.osd.mil/dcas/pages/report_oef_type.xhtml>.

Operation Iraqi Freedom Data:

"Operation Iraqi Freedom (OIF) Casualties by Category." *Defense Casualty Analysis System*. Department of Defense, 03 Mar 2013. Web. 3 Mar 2013. <https://www.dmdc.osd.mil/dcas/pages/report_oif_type.xhtml>.

Wisconsin Veteran Data:

"Veterans Data and Population." *Wisconsin Department of Veterans Affairs*. Wisconsin Department of Veterans Affairs, 31 Dec 2012. Web. 3 Mar 2013. <<http://dva.state.wi.us/PA-VeteransData.asp>>.

"Veterans Compensation Pay." *Wisconsin Department of Veterans Affairs*. Wisconsin Department of Veterans Affairs, 31 Dec 2012. Web. 3 Mar 2013. <<http://dva.state.wi.us/PA-VeteransData.asp>>.

"Counts of Veterans Receiving Compensation by Location and Combined Degree of Disability." *Wisconsin Department of Veterans Affairs*. Wisconsin Department of Veterans Affairs, 31 Dec 2012. Web. 3 Mar 2013. <<http://dva.state.wi.us/PA-VeteransData.asp>>.

Cost of War Data:

Daggett, Stephen. "Costs of Major U.S. Wars." *Federation of American Scientists*. Congressional Research Service, 29 Jun 2010. Web. 3 Mar 2013. <<http://www.fas.org/sgp/crs/natsec/RS22926.pdf>>.