Guiding QuestionsSubmitted to POD

* What geologic processes caused the formation of the XXX Mountains?
* Should speed limits be changed? What patterns and relationships is there between car accidents and speed limits? How do city planners determine how to set or change speed limits based on evidence?
* How much impact do disasters have on wildlife?
* Why are trout and largemouth bass found in different habitats here in XX? Why are white-tailed deer and elk found in different habitats here in XX? What manmade influences have had an impact on elk populations here in XX and what efforts have been explored to mitigate those influences?
* What is negatively impacting specific animal habitats in XX? (possible ideas: fires, flood, invasive species, urban growth, pesticide use, over hunting, over grazing, global warming)
* Which locations on campus lack the aesthetics and utility necessary for a productive learning/work environment?
* Where are Earthquakes occurring today?
* Do cities with lower vaccination levels have a higher incidence of disease outbreaks? Does geographic isolation or lower population density impact the spread of disease more?
* What types of food producing plants are best suited for a garden at xx School?
* How can a linear model be used to predict non-linear population growth?
* You work at an Environmental Advocacy Agency. You have just got word of a future oil pipeline that is to be routed through Washington to southern California. Your group is not against oil pipelines, but they want to make sure that the safest options are chosen. Your boss has tasked you with creating pipeline routes that minimize the risk of natural disasters. You and your team will put together a variety of routes, and present the best one to be provided to local city councils. Your analysis is extremely important in making the right choice for the environment!
* How can the exploration of global architecture and structures utilizing geometric principles contribute to our understanding of ourselves? Of each other? Does the location and relative distance and positioning have a connection to other systems, earth based, cosmic or otherwise?
* Water is very important for xx as well as the entire southwest. There has been a drought in this area for almost 20 years. How will this affect us in the area, and is it necessary to conserve water at this point?
* What areas in Central America would be valuable for archaeologists to explore potential Mayan cultural sites? How can archaeologists utilize GIS to locate possible sites of historical and cultural interest for exploration?
* Do populations with certain adaptations populate specific areas?
* How can computation be employed to facilitate exploration and discovery when working with data? Since 2009, we have collected assessment data including school and grade level. While consistently at least 2/3rds of the girls who attend xxx are from Title 1 schools, are we reaching the students in our neighborhood? Are we reaching those with access to public transportation who would not need to arrange for a bus to attend the event? What other barriers can we circumvent to make it easier for teachers to bring girls to xx?
* How might the weather conditions impact the traveler choices for Phoenix, AZ vs. Los Angeles, CA? When would be the ideal times of the year to visit a particular city?
* Is there a relationship between crustal activity (earthquakes, volcanoes, mountain building) and plate tectonics? If so, describe any relationships and patterns.
* What are some of the risks that contribute to the contamination of groundwater in cities? Does hazardous waste end up in our groundwater? How is runoff into our groundwater managed? Where are the nearby water sources where our groundwater goes? How is our source water managed so our water is safe to use? What are the benefits to managing these risks?
* What factors contribute to the availability of access to fresh water in different regions of the world?
* What are some examples of human features within your neighborhood? What could you say about your community to describe it in terms of physical features? How might you share directions to get to a location when someone is familiar with the community? In what ways is this different from how you might give directions to someone who is from another country?
* Learning more about locations of NBA teams across the US as well as investigating the distance from colleges to NBA drafted team. My main goal is to get the students to think outside the state border.
* According to your personal values, what are the best places in America (or the world) to live?
* Where is the world's population distributed? How can we tell? Why is this important?
* How can we predict what populations of women are at higher risk of maternal mortality? How can geospatial data be used to provide evidence of which populations are at risk? What patterns and relationships in geospatial data indicate a higher risk population?
* What geospatial data exists to show current agricultural conditions? How can such data be analyzed to predict future events? Should all scientists reach the same answers given the same data? Why or why not?
* Is there a relationship between crustal activity (earthquakes, volcanoes, mountain building) and plate tectonics? If so, describe any relationships and patterns.
* Where is there earthquake activity occurring? Are there larger and more frequent quakes in certain areas? Are there any other events occurring in the same locations? With what intensity are these felt? Are there any building codes associated with these areas?
* What is the distance between these two specific locations, in kilometers? Why do you think the line marking the shortest route between the two locations is a curve rather than a straight line? What is a GIS and what problems are they designed to solve? What are some specific functions of ArcGIS online to solve geographic problems?
* How can land usage data be used to predict temperatures for a given area? What patterns and relationships in geospatial data indicate higher or lower temperature areas? What patterns and relationships in geospatial data can predict rate of reflection and/or absorption of sunlight in a given area?
* 88% of the world's population lives in the eastern hemisphere. Where is the eastern hemisphere? Where do all those people live in the eastern hemisphere? Is there a relationship between population and environment?
* How does population growth occur in xxx?
* How can we predict if our area is at high risk for a tornado, hurricane, or blizzard? What geospatial data can we look at to determine where these events are more likely to occur? How can we use geospatial data and tools to communicate risks to others? Once we know what storms occur in xxx, how can we be prepared for these events?
* Do humans significantly alter/harm multiple spheres (atmosphere, biosphere, lithosphere, hydrosphere) of the Earth?
* How much money is the school losing due to heat loss?
* GENERAL Questions on Indian Subcontinent: How can geospatial data be used to explain how physical features impact where people live throughout the Indian subcontinent? What patterns and relationships in geospatial data indicate a link between cultural (language, religion, etc) practice and political or physical boundaries? How can geospatial data and tools be used to communicate political changes over time within the Indian subcontinent?
* Where do places get their names, and what do names tell us about a place?
* Which locations/features within the Panama Canal Construction Zone best represent the challenges the United States overcame to successfully build the Panama Canal as well as demonstrate the engineering and architectural expertise of the United States?
* What level of education is school violence most prevalent at, and are there some programs that seem to be more effective than others at reducing school violence?
* What kinds of habitats' temperatures remain relatively unchanged/has greatest fluctuations throughout the seasons on a weekly basis/throughout the day? How might the changes in microhabitat influence the seasonal behavioral changes of animals?
* What did my summer involve and how can I share it in an interesting way using maps? How could I turn that data into coordinates on the plane?
* What kinds of patterns do you see in the population of xx from 1890-2010? Predict the population of xx in 2050. Are there other counties in xx like xx county?
* Are there any ecological factors or human interactions with ecosystems that affect lyme disease occurrence?
* How does the way that humans use the land around them affect the water quality of streams within their community? Can the water quality of a stream be predicted by looking at how the land is used within a watershed?
* What portions of the highway system in xx County have higher incidence of accidents/violations?
* How does a tree start? Do all trees grow at the same rate? What are the most common trees in the state of xx? What are the most common trees in Southwest xx? What is the increase/decrease of the most common trees for the last 50 – 100 years?
* Why is xx divided up into xx provinces/counties and what makes each of the provinces/counties unique in terms of topography, rocks, and resources?
* What are the real life applications of finding the volume and surface area of three-dimensional solids? What kinds of objects, natural or man-made have fairly distinct 3-dimensional shapes? Discuss this with your partner. How can you find the surface area or volume of a 3-dimensional figure like you came up with? What is the usefulness of finding the volume or surface area of 3-dimensional structures? In other words, how can the information obtained be used in real-life practical ways?
* How have human activities, such as coal mining and farming, in the xxx impacted water quality in streams and rivers?
* How does America’s use of renewable resources and production of electricity compare with other nations? (can we use certain data points to make us look good or bad?) Does America’s amount of electricity production have a correlation to the economic and geopolitical concerns of the country? (i.e. do we make more electricity so that we can produce more as a nation?)
* Why is science and technology important in our society? How does location affect the types of scientific careers in the United States? In what ways does industry affect the types of scientific careers in the United States? How does scientific careers in xx compare to other states such as California, Oregon, New York, or Texas? In what ways could this study be used to study scientific careers in the United States?
* Is our Earth covered with more land or more water? How can we find this information? How can we record this information? How can we use the information we recorded to argue or prove if Earth has more land or more water?
* Where do hurricanes happen?
* What natural phenomenon is most likely to occur in xx: Hurricanes or Tornadoes?
* Where are the largest changes in home values? Where are the biggest changes in household size? Where are the biggest changes in household income? What are the kinds of facilities or structures near or in gentrified areas? What is not there? Where are the areas of highest gentrification? How have those areas changed over the last 20 years?
* If an earthquake of New Madrid magnitude happens again, would my barn be okay or damaged? What could I do to ensure it could not be damaged? How should I build my new barn to ensure its stability?
* How will you and your family be affected if the New Madrid fault reactivates with similar energy to the 1811-12 events? What precautions might you have in place for your family to deal with the changes you predict?
* How can we as NASA educational directors create and deliver filmed PSA messages that can educate the public about the total solar eclipse?
* How can you determine the relationship between soil erosion with water resources and land uses? How does the increase in population impact and contribute to the soil erosion and the water resources?
* What is the relationship between population and pollution? Why is there more pollution in an urban vs rural area…what factors are involved?
* Xx is home to xx plants and animals listed under the Endangered Species Act. Choose one species. Compile a life history for the species, including habitat requirements. Investigate whether its habitat has adequate protections (ownership by state or federal conservation agencies). Then propose a site for the xx Game and Fish to purchase to increase their habitat, taking into account nearby wildlife stressors.
* How does geospatial information enhance our understanding of motion? Of Speed? Of velocity? Can we predict the motion, speed and or velocity of naturally occurring conditions on Earth through geospatial information? Can geospatial data be used as evidence for motion?
* Identify if your state is susceptible to a natural disaster. In this exercise we will see if the location you chose from the list is in danger of experiencing a tornado. When and how severe was the tornado in your location? If your location did not experience a tornado, where was the closest one? When was the last reported tornadic disaster for your location (or the nearest to your location)?
* What factors are a major cause of migration between states?
* How does the environment influence adaptation?
* How can we as citizens protect historical sites?
* Why is water important to a community? How can we conserve water?
* How does biodiversity contribute to an ecosystem's equilibrium? Based on the data you collect, do you believe gray wolves should be reintroduced into xx?
* What factors influenced the development of The Mayan civilization? What factors influenced the decline of the Mayan civilization?
* What impact do humans have on their environment? What impact do forest fires have on humans?
* How does drought affect forest health?
* Was this a good location to build our school? Support your answer with geographic evidence
* What ways can humans limit their impact (biologically and/or geographically) on the Colorado River and its surrounding systems?
* What can we do to decrease humans' negative impacts on the environment, relating to climate and energy consumption on Earth? How can homes be modified to maximize energy efficiency, based on geographic location on Earth? How can we model energy efficient homes of the future, utilizing solar energy production?
* What are we obligated to do to help our school be better? What does our school need to have a positive effect on its students? There are many worldwide issues but what can we control? What are problems here at xxx that we could do something to fix?
* How do we preserve or protect xx historical artifacts? What is the definition of historical? What is an artifact? (Building, site, tangible product, etc.) What does preservation mean? (Discuss to what extent)
* What is the distribution of pollinators in our community?
* How does the severity of xx wildflowers change over time?
* How can we prove that evolution has taken place in the past, and how can we predict future evolutionary changes?
* Which types of severe weather poses the greatest risk to a region?
* How is agriculture different in different parts of the world? Why is agriculture different in different parts of the world? How has agriculture changed over time?
* What causes earthquakes located far away from plate boundaries?
* What are the risk factors for hurricanes in southern xx?
* Illinois and Japan are located near major fault lines, how do earthquakes affect these locations?
* Should a hurricane hit our community, what types of problems would we face? How could we be part of lessening the impact on those in our community?
* How do you determine the distance between two locations using a map? How do you change the units of a distance? Should any locations be automatically programmed into the taxi?
* What are the different types of power plants located in the United States? Are there patterns in the placement of the plants? Which types of power plants use renewable or non-renewable resources and which areas in the United States have the largest concentration of power plants using renewable resources? After a group picks a state to do a micro evaluation, what types of patterns of energy production do you see in the chosen state? What are the reasons for the pattern? What types of energy production are missing in the chosen state? Why do you think they are missing? What impact does the geographic location of the state have on the types of energy production plants? What might the state do to improve its production of renewable resources?
* How does a person’s home, background, and time period affect him or her? Why is setting an important literary element? Where does your historical figure fit in time and space? What other major events occurred during the time your historical figure lived?
* Is xx at risk for a water crisis similar to the one which began in Flint, Michigan in 2014? How can I draw conclusions from my data,m and or use my data to support claims about my hypothesis?
* How does access to natural resources make or break a civilization?
* Who is most at risk for air and water pollution in our state?
* How many power plants are in the US/xx/your district? Which district has the most power plants? Where is this district located?
* Compare the dynamics of the West with other territories and states in the US to determine why suffrage rights were granted in several Western states. Evaluate the role geography, culture, and history played and continues to play when it comes to advancing rights for groups in the US.
* Do conquered people with Empires have similar patterns of revolt and assimilation?
* How and where did the domestic turmoil that occurred in 1967 affect and reflect the changing meaning of freedom and equality in the US?
* Research where there are training programs/college programs for chosen career and analyze layers/pins to determine best place to live and create a deliverable to present findings.
* What places in the US offer me the most enjoyment, the safest place; areas where I can thrive and survive?
* What role have immigrants played by influencing American families between 2017-2018
* Why do you think there seems to be a deer population explosion? Why is there a pronounced difference between now and fifty years ago? What type of information and data do we need to answer our question?
* How do banks decide to loan money to new business owners when many businesses go into bankruptcy and are unable to remain open? What factors play a part in the success or failure of a business? How should a potential new business owner decide what type of business to open and what location would provide the most profit? If you were a potential business owner, what type of business should you open and where should it be located to guarantee profit? What factors must you consider to guide your choice of business type and location?
* How does the harvested deer population differ from certain counties in relation to the human population? Should funding be allocated to these counties based on the number of deer harvested? Should funding for deer management be given (a) equally to all counties or (b) based on number of animals harvested?
* Where do you think would be the most appropriate hypothetical location for a popular new cultural landmark based on an analysis of the location and annual visitor data of twenty four of the world’s most visited monuments?
* How has fast food altered our eating habits and our health since 1950??
* What factors would contribute to a decrease or increase in childhood obesity? Another factor, what would you predict xx rate to be within in the next 10 years?
* Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
* What community issues need to be considered when building a nuclear power plant? Are there any environmental impacts or risks? What about the proposed site makes it the lowest possible risk to residents and the environment? What other data should be considered (economic impact, social impact, natural disaster unknowns, aesthetics, etc.)? What are the safety requirements of the government when a nuclear energy company proposes building a new site?
* What is the most effective way to eliminate the transmission of Ebola from person to person?
* Is Wind Energy a Viable Solution for xx to the Non-Renewable Energy Crisis Affecting the United States?
* Does slope affect erosion? What is soil texture and how does it affect permeability?
* How does climate and weather phenomena affect people living in different regions/countries in the United States?
* Why is migration an important phenomenon for geographers in the study of human systems?
* Is there a relationship between Industrial Development and Environmental Pollutant Emission? Discuss this relationship and the possible solutions.
* Is there sufficient capability to use geothermal energy in the state of xx and provide valuable renewable energy?
* Where do most hurricanes take place in the world? How does a hurricane affect the population over time in a particular city or country?
* What areas of the U.S. have the most fossil fuel resources? Is there any correlation to where the tectonic plate boundaries are?
* What is a dead zone? Why is there a hypoxic zone located in the Gulf of Mexico and why is it so large and so frequent?
* How is the globe set up like a coordinate plane? Where is the origin on a globe? How do you plot locations on a globe? What are the largest and smallest longitude and latitude values that you can plot on a globe? What country is located at (-19, 65)?, (175, -41)?, (84, 28)?, (-65, -34)?
* Where, why, and how did the United States and the Soviet Union find themselves in direct conflict in the years following World War II?
* Make a claim as to why xx chose to research arsenic detection in her area that is supported with two pieces of evidence.
* Lesson 1: How does ice affect our planetary balance? (thermochemistry) Lesson 2: How do changes in pressure and temperature affect global winds and ocean currents? (Gas Laws)
* Is there a relative relationship between cases of diabetes with high and low African American populations and the location of fast food restaurants in our city?
* Can patterns of human settlement be predicted based on the physical features of the globe?
* Can one change to Earth's surface create feedbacks that cause changes to other Earth's systems?
* How does water quality change along the xx river from xx to xx? What are potential contamination sources and threats to the river along the way? What are some strategies for mitigating risks and hazards from this river to the Ocean?
* Are MRSA outbreaks more prevalent in larger metro areas or smaller rural areas?
* Do you think economics plays a big role in the spread of diseases? Do genes play a larger role in overall health compared to environmental factors? How would a migration of Anopheles mosquitoes to the United States affect the health and wellbeing of its citizens? Is the United States more equipped to handle a malaria outbreak compared to Nigeria? Why or why not? How do we predict the plasmodium population (which causes malaria) will evolve within the next ten years, in terms of numbers if nothing is done? What evolutionary adaptations have plasmodium made over the past twenty years?
* How can we predict the area potentially most affected by the loss of glaciers? What ecosystems will be directly affected and how will geospatial data help explain habitat loss? What patterns of geospatial data will indicate areas of greatest risk?
* What is the most effective way to avoid/prevent the transmission of HIV?
* Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities in relation of application to Growth and Decay.
* From a bird’s-eye view, what is the surface area of our school ? How far is our school from 4 other High Schools? How many houses (approximate density) are in a 24 block radius from our school? Exit Ticket: List the schools in order of distance from our school.
* How do you think land managers and the public can make predictions about risk of fire to our local, state and national parks? What factors make an area have higher risk for wildfire?
* What do you predict is the safest region to take an outdoor vacation? Why do overlapping geospatial risk factors occur in some regions but not others? How can these overlapping geospatial risk factors influence the opportunity cost to vacation in one area over another?
* Focus #1: What is a biome? What do biomes look like? Where in the world can you find different biomes? Focus #2: What biomes have the strongest human presence? What biomes have the smallest human presence? What factors might influence a strong or diminished presence in these biomes?
* Determine the location of the types of climate zones that exist in the four specific regions. Hypothesize the determining factors for the locations chosen for the specified ancient settlements. Compare/contrast the benefits and disadvantages of living in each of the 4 focus regions. What is the distance between two major cities in two different regions?
* Is there a relationship between human development, energy use, gross national income, life expectancy, and/or adult literacy rate across various countries?
* Which major city faces the greatest set of consequences associated with climate change?
* How will a decrease in rainfall impact farmers? Why is there a projected decrease in rainfall? (Will be expanded and fitted with content for appropriate grade level)
* Using geographic, climatic, historical and economic reasons, explain the population density map of xxx.
* I am/am not living in a food desert (claim to be answered by individual student)
* Why do you think that the xx School District is an aging in place district? How will this impact the growth or decline of the xx School District? How will this impact the economic development of the area? How might this growth or decline through time affect where you may choose to live?
* If a country wanted to reduce the number of citizens emigrating from it they would need to improve factors such as per capita GDP, crime, infant mortality, and internal conflict such as wars. This study will show that the countries with the highest per capita GDP, and the lowest infant mortality and crime, and are at peace within themselves have the lowest emigrant rates.
* ACT scores vary widely across xx County. Factors such as per capita income within the school district, crime rates, high school graduation rates, percent of students accepted to college, and average Lexile Scores have a direct correlation to a school district’s average ACT scores.
* How can some physical distances of equal length feel more or less distant?
* Is there a relationship between the total fertility rate of a nation and its economic development, as measured by gross domestic product?
* Using the map, and a layer from ARCGIS online that you find and add to the map, create a presentation that supports the Hypothesis and explains the distribution presented at different scales. Why are some regions so far off the state or national average?
* Predict what the Geospatial maps indicate may be found in the dig? How did the items recovered from the dig differ or agree with their predictions?
* Socioeconomic disparities and systemic oppressions have held certain demographics hostage to unfavorable life outcomes.
* What areas of xxx have higher concentrations of point source pollution vs. nonpoint source pollution? What are the possible effects of these pollution sources on their surrounding environments? What health concerns are most prevalent in these areas?
* What states had the largest change in the number of suicides? What age groups had the largest change in the number of suicides? What factors influenced the changes?
* Is there any correlation between the locations of mosquito borne illness outbreaks and the range of specific species of mosquitoes? Is there any correlation between specific natural disasters and an increased incidence, (the numbers and locations of cases) of mosquito borne illness? Is there any correlation between the proximity to a specific body or bodies of water and the incidence of mosquito borne illness? Describe an area of the world where you think may have the highest likelihood of experiencing problems with these disease and organisms Compare the incidence of two mosquito borne illnesses and the number of cases and the range of the mosquitoes that cause these diseases Is there a correlation between the range of a mosquito the proximity to bodies of fresh water and the number of case of mosquito borne illness?
* Why is it important to preserve all the components of the ecosystems?
* How does geographical location determine some of the problems that people might face during and after a major weather event (i.e. hurricane)?
* Which regions of the U.S. are most at risk of experiencing heart disease? What patterns and relationships in geospatial data including high risk of obesity? How can geospatial data and tools be used as evidence?
* What job sites with STEM careers are in the communities and near the schools? What colleges and universities nearby provide degrees that focus or lead to a career in STEM? What is the foundation that needs to be established to have a career in S.T.E.M.? What careers are there most of and what is the least? How have STEM careers grown and decreased throughout the year?
* How does the geography of France influence its culture? How do the dialects spoken in France today correspond to the historical regions of France?
* Explain how different biomes affect populations of different species. Identify the major characteristics of land biomes Identify different ways that species have made adaptations to survive in their environment
* How do we build a healthy, sustainable, attractive environment that improves the look and integration of natural systems within xx School’s campus?
* How can geospatial and biological data help explain where invasive species are located and why they occur? How can geospatial and biological data and tools be used as evidence to design environmental space? What patterns and relationships in geospatial data indicate potential health of ecological systems within xx?
* The prevailing world viewpoint is that the sea levels are rising due to the effects of climate change. Warming the seas coupled with the loss of polar ice caps and glaciers are the possible root cause. What areas of the world are most susceptible to the effects of higher sea levels? What will be the effects on the populations, economy, politics, geography and other socio-economic areas?
* What is the difference between abiotic and biotic factors, and which ones will you more likely find map data for? Why? What are the 5 most important factors for defining a biome? Why did you choose those factors? What data (layers) will be most useful for building your biomes? Why would you choose those layers? Will your information be easiest to share as a tour, a slide show, a timeline, or another format? What will be the best way to ensure your audience remembers what you’ve said? What are 3 ways defining and drawing boundaries around biomes on Earth’s surface could be useful?
* Where is the biggest amount of emigration? Where do you think they may go? Why do you think people are choosing to move there (naming push factors)? Where is the biggest number of immigrants? Why do you think people are choosing to move there (naming pull factors)?
* What type of power plant would be the best choice to build in xx and where should it be built?
* The city council of xx has been donated land from 3 entities: a farmer who recently passed away, the owner of an old mine, and the military. Each donor has stipulated that part of their donated land must be used for recreation, and part must be used for development. With this in mind, reflect on the following questions: What are the best locations in xx to plan for open space (or protect open space)? What are the best locations in xx to plan for development? What variables impact urban planning? What arguments can you make to the zoning department?
* At the end of the quarter on Geology/Earth Science a summative assessment titled, “Where would you build your house?” will be used. This home-location theme is articulated throughout the whole quarter, beginning with the following plate-tectonic lecture questions: Should I build my house on a cliff above the ocean? Why or why not? Should I build home [or camp] next to a river? Thinking about the land, what are some important considerations when buying or building a home? What are some things to consider before buying a home in xx County?
* Is there a trend in the rate of melanoma between states or regions within the US, if so what may be environmental factors or variables affecting the trend(s) outside of normal human risks?
* What factors contribute to a high wildfire risk at a given physical location, and to what extent do they impact risk?
* What impact did Sherman’s campaign of total war have on the civilian population of Mississippi?
* How did Birmingham get the name “The Magic City”? What do you know about Birmingham? Do you know why it became a city? Do you think transportation played a role? Why did they decide to call it Birmingham the magic city? What role did railroads play in the building of Birmingham? What was the importance of the railroad?
* Given the locations of past ancient civilizations, why do populations still congregate in the same areas? What geospatial data exists to show current population densities, GDP, and common physical features? How can such data be analyzed to understand current settlements? Should everyone reach the same answers based on the given data?
* Based on the location of the U.S. and Mexico, how does their location impact their economy and culture? What geospatial data exists to show current economic strength, and populations? How can such data be analyzed to determine the role of resources and climate?What are the strengths and weaknesses of the data collected in determining the relationship between the location and the economy?
* Given the trading data for 2017, and current trading trends, how can we predict which regions or commodities are likely to increase/decrease in long term trade with xx port? How does transforming the Excel data into geospatial data used to find trading trends? How can such data be analyzed to predict future employment trends at the port? Will there be a direct correlation between the increase/decrease in total annual trade dollars for the port and number of trade partners? Why or why not?
* How can we make the best decision of where and how to work the Digital Media market? What geospatial data exists to show where jobs are both physically and online? What geospatial data exists to show where continuing education exists both physically and online?
* Two tribes have chosen to locate their respective tribes within certain distances of a major water source to be used by members of both tribes. Each tribe has chosen to be different distances away from the water source and from each other. Since it is important for each tribe to use the source for survival, how far away from the source and from each other should they be located to ensure peace among their tribes?
* How can we best market xxx to investors of the tourism industry and potential corporations of industry?
* Given historical and current geospatial data, how can we predict what types of natural disasters will impact xx, specifically xx County and the surrounding counties and what steps can local governments take to ensure the safety of the citizens?
* How did the battles fought in Mississippi during the Civil War influence the five themes of Geography?
* What are some phenomenal facts of the Great Migration? What different landmarks, cultures, influences led to the development of the United States?
* How can the area of buildings and objects be determined? Extension: How can the area of irregular shaped buildings and objects be determined?
* How do the parts of an ecosystem work together? What patterns and relationships can we identify in ecosystems and amongst organisms within those ecosystems using the GIS data? How can we use GIS data to explain how change affects organisms in an ecosystem? How can GIS data be used to show locations of different ecosystems?
* Given the current rates of cancer in areas with high concentrations of coal mining, what claim can we make about the relationship between the burning of fossil fuels and the health of humans? Why is it important for us to begin to focus on alternative resources as a species?
* Has physical geography impeded the spread of world religions from their points of origin? Where did world religions originate? What religions do people practice across the world today? How have religions spread from their points of origin? Do boundaries appear that coincide with physical features? Is this always the case? Sometimes? Never?
* How did early people choose their area to settle in developing a civilization? How did the different civilizations adapt their environments for their needs? Why did some cities not last and others endured to modern times? Which area is the best for settlements?
* Which type of power plant generates the most efficient amount of energy, and which country is leading in energy efficiency?
* Where can I borrow a library book after school? Where can I go with my friends to play basketball or soccer? What can I learn about xx transportation so I can get home safely and on time? Where is my school in relation to libraries, recreation centers, and xx busses?
* How does where you live and where you are from influence your life?
* Students will use GIS to understand the role that geography and tectonic activity in the Aegean region led to the settlement patterns of Ancient Greece.
* What patterns in the data indicate a relationship between environmental factors and a natural hazard phenomenon?
* Who are we? Where do we come from? Why are we here?
* What factors are responsible for the various rock concentrations across North America from the maps of Topography and Rock Types?
* Was xx correct in their decision to close schools based on the population of xx?
* Focusing on just one or two coyote packs and just one or two layers of biodiversity as evidence for your argument, propose an explanation as to why coyotes have chosen this area to live in. What do you think would happen to your pack(s) if a natural hazard, such as a hurricane, came through and greatly changed this landscape?
* How has the temperature of water changed over time? Has the temperature of water changed over time? If so, is it because of pollution? Did global warming add to the change in the water temperature? Do you see patterns over the years?
* What causes the earth’s landscape to change over catastrophic and gradual timescales? How can we predict how the earth’s landscape will change in the future? Can we use these predictions to keep people safe?
* How many people started out with Dr King during his march from Selma to Montgomery? How many people left the march before it was finished? How wa​s the Selma to Montgomery march successful? How many died in the Selma to Montgomery march? Who was involved in Bloody Sunday 1965? What happened on Bloody Sunday in Selma?
* What economic, military and ideological factors motivated the U.S. to become involved in Hawaii, Cuba, and the Philippines?
* Why do certain populations of humans have a higher occurrence of certain traits?
* What factors resulted in a high concentration of African-Americans in Harlem, NY? What factors resulted in a high concentration of Hispanic residents in Harlem, NY? Do you notice any change in the density of African-American or Hispanic residents in Harlem over the last 100 years? What demographic information exists for your neighborhood? Does your family associate with a racial or cultural heritage? If so, which area of the country has the highest concentration of the ethnic group?
* Construct an argument about where the most extreme weather occurs and why this happens
* What ways have population characteristics changed in xx over time.
* How can in the process geospatial inquiry measure moment magnitude scale of high risk areas nearby? What are wealth, income, and/or poverty rates for each city? ​Which cities have high populations (e.g. over 2 million)?
* How can we implement geospatial data to locate the availability of affordable housing and market rates in major urban cities? In what ways can we use this information to better support affordable housing efforts and ways? What patterns of affordable housing and relationships exist in urban cities? What strategies and efforts have urban cities used to develop and expand affordable housing in major urban cities? What can we add or subtract to improve our project and research?
* Why are some religions spread over a larger area than others? What does the legend tell us about the layer you are looking at? How were the silk roads able to influence the sharing of religions to places other than their origins? What role do you think the silk road played in the sharing of religious beliefs and ideas over time? How does a country's population reflect the amount of people that follow the predominant religion?
* Why did early civilizations form as they did? Where did they form and why?
* What county/ward/precinct should receive resources in case of a flood? Which are most subject to flooding? Which have lower-income populations (who might need more assistance/resources in case of flooding)? What resources might already exist in each (e.g. emergency shelters, clinics, food pantries, other resources that might be useful in case of flooding)? What could happen if each is affected by flooding? Location of the water waste plant
* You are training for the great bike race: “Haute Route Dolomites Swiss Alps” this is a multiday race starting from Venice, Italy, and finishing in Geneva, Switzerland which occurs over 7 stages and takes an amazing three weeks to complete. utilize the map/presentation. utilize map notes at the markers to gather data regarding the elevation, riders’ heart rates, and their speeds. to plot the course
* Students will map crime in order to determine hot-spots in neighborhoods and analyze if these hot-spots are within 5-minute response times so police can more efficiently allocate resources to combat and prevent crime.
* How does the utilization of Nuclear Power affect the living organisms in their proximities ?
* How does a map tell a story?
* How do people depend on/adapt to/modify the environment?
* Select a county to examine in New York, Maryland, South Carolina, and two states/regions in the Midwest – one north of Missouri and one south of Missouri. For each of the layers provided, what were the total number of slaves present for each census year provided? Also provided are figures for manufacturing and agricultural output. Provide analysis to demonstrate a need for the continued growth of the ‘Peculiar Institution.’
* What could happen to specific locations in xx during different levels of hurricanes?
* When a volcano erupts, how much time do Hawaiian residents have to evacuate?
* What do we have in common? How do our team addresses compare? Who on our team lives closest to you? Who lives closest to the school? Who lives furthest apart? Where is the highest density of addresses of people on our team? How likely is it that a student on our team was on the same team last year and attended the same elementary school?
* Students will compare wind speeds and solar radiation across Rhode Island to find potential sites for both types of energy. Analyzing this data, they will determine whether wind or solar power would be the best choice for renewable energy in xx. Finally, students will locate current power plants in xx, and calculate the amount of power output and power capacity for renewable and fossil fuels for comparison.
* Using the Global Quality of Life indicators, what indicators are of the greatest importance and how much control do we have as individuals over those indicators? Are you making quality of life decisions unconsciously? How does teen pregnancy affect quality of life in xx, based on the achievement of skills acquired by completing a quality education? Does access to sex education improve decision making abilities? Or does access to birth control and abortion play a role in diminishing the impact of teen pregnancy?
* What are factors that can affect access to health care and/or access to modern technology? ​How can those communities overcome those factors to access health care or technology? Within a country in your target language, your group will analyze the relationship between quality of care/access to information & geographical location. Then, you will analyze the effects of the surplus/deficit on the community. ​[Add something about contrast to the US?]
* Where are libraries and Little Free Libraries located within the City and where will your group locate yours? What are the literacy/education levels, crime statistics, vandalism statistics, graduation rates, median income, property values, rent/ownership, etc. of their desired areas? Should students avoid installing Little Free Revolutionary Libraries in areas with high rates of crime/vandalism or give them special attention? How else can you use wood technology to improve or enhance the built environment in your community?
* How can we successfully analyze, evaluate and present findings of the causes and effects of gun violence in xx? What are the causes and effects of gun violence on teenagers in xx? Where does gun violence occur in xx? What are the areas of most and least gun violence in xx? Does incidence of gun violence change over time? Does gun violence correlate with property crime?
* Interpret relationships between world maps and life expectancy, disease mortality, annual income, and literacy data. Determine 3 cities in the United States to initiate a pro-vaccination campaign.
* What constitutes a crime? Are all crimes reported equally? Is there a crime that is more fairly reported across x? What constitutes inequality? Income, Property Values, Employment, Education? Other? What should be the scope in terms of both area and time for their geospatial inquiry? What and where should they look for the data?
* What is the Highest and Best Use of the subject property?
* Why are people hungry? Why aren’t we being more proactive about this problem? How can we help people be healthier, live longer, and make better food decisions? What can we do to shrink food deserts in our area? How many food deserts are in our state?
* How does watershed affect the environment, population, and marine life? What can be done to reduce flooding from the north that affects salinity levels in the Gulf of Mexico? How can marine life be protected as a result?
* How did the eruption of Vesuvius lead to the destruction of Pompeii? Why were the citizens not prepared? Are the citizens of Pompeii today better prepared should Vesuvius erupt again? How are they better prepared? Are people in other parts of the world who live near volcanoes prepared for such a natural hazard?
* How do earthquakes impact various global communities?
* What is the impact of immigration?
* How do products we use on land get into our water systems and what can we do to solve this problem?
* How does salinity of the watershed affect the marine population?
* How can we use geospatial data to show the location and areas of concentration of national parks in the US? How does geospatial data show patterns and relationships between areas of vegetation/forestation and geographical features such as elevation? Can geospatial data be analyzed to show a relationship between fault lines of the earth’s plates and the formation of mountains chains? How can geospatial data show evidence of the rock cycle, soil formation process, and presence of plant life? How can geospatial data and tools be used as evidence to communicate whether some mountainous areas are older/younger than others?
* What problems do the white tail deer create for the state of xx? Students will provide solutions for the problems the white tail deer create.
* What natural disasters and/or environmental changes are causing a decrease in the polar bear populations in certain areas across the world?
* Should aviation be discontinued, why or why not and do we really know where the safest places are to travel in the U.S.? How can geospatial data be used to help explain where and why aviation crashes occur in the U. S.? What patterns and relationships in geospatial data indicate a higher risk of plane crashes? How can geospatial data and tools be used as evidence to communicate a risk?
* How do you measure the environmental-friendliness of a city?
* How does weather (natural disasters) impact humans in highly populated regions all over the world? How do natural disasters impact communities, cities, regions, environment, and critical infrastructures in relation to recession and recovery?
* Using geospatial inquiry, how will you determine when to plant specific crops, what region of the state to plant them and how far apart plants should be planted for optimum growth?
* Which area of the US would be best for your career choice depending on local data about natural hazards, current population, etc.
* Are precipitation quantities/rates the sole cause of flooding, or does data indicate the likelihood of other factors? What are the average patterns between flooding frequency and precipitation quantities? Are there periods of time in which there were higher rates of precipitation, but less flooding? Do findings demonstrate consistency between precipitation rates and flooding levels? If not, what are some other factors to flooding? Are xx or xx at risk of experiencing flooding? What are their historical flooding records? How likely is flooding in the future without intervention? Would state and federal funding be required to prevent future flooding? What interventions might the funds be used for?
* How do natural hazards and natural disasters differ? How do natural hazards affect individuals and societies? How can scientists and engineers predict if an area is at high risk for a natural disaster? How can geospatial data be used to help explain where and why natural hazards occur? How can hazard data be used to predict, minimize or eliminate the effects of natural hazards?
* What human-environmental interactions may lead to global warming/climate change and cause risk for the world’s major population centers? What world city is the most at risk due to human causes of global warming/climate change?
* How many immigrants are in the USA? In NYC? What change has occurred over the last 50 years? Where does the Immigrant community exist in NYC? What are the characteristics of the surrounding communities? What are the economic conditions in the immigrant community? Have the conditions changed over time? Do the conditions exist for conflict or stressful interactions between members of the immigrant community and citizens of NYC? What effect does this condition have on the interactions of young adults in public high school?
* Where do hurricanes form? Where do hurricanes travel? Is the Yucatan peninsula in the path of recent and historic hurricanes? To ultimately construct an argument: Based on the data, why did the Mayan’s abandon their city states?
* Why should decisions be evidence-driven and not guided by feelings or what we initially think? How can AGO be a tool which allows for evidence-driven decision making? What sort of data can a GIS map provide in the attempt to make our decisions evidence-driven?
* Develop and argue a plan, based on evidence, on WHERE to create a new city worldwide. Include evidence of what features the city should consider; such as food, water, natural resources, transportation, economy, natural hazards, etc.
* What role, if any, did the Great Exchange play in the stabilization/instability that we see throughout the African Sub- Continent? What relationship and trends do you see between your movement from east to west and the Great Exchange?
* Which states are the biggest users of each type of energy?