SLCSD-NGS Geo-Inquiry Unit Final Template Draft

Grade level:

1. Geo-Inquiry Question:

*How can we bring attention to unsafe walking routes to West High from our Westside neighborhoods to create district action?*

1. Description of Learning Goals*: In this unit students will…*

(Notes: Experiential education, content and skills)

*Students will consider obstacles along their morning commute to school and think geographically by asking questions like “Where it is? Why is it there? and “why care?”*

*Students develop and revise a Geo-Inquiry question.*

*Students will identify obstacles to school and evaluate the safety of various walking routes.*

*Students will locate the bus routes and evaluate the equity of east & west side school bus access.*

*Students will determine which students are likely to walk across major urban development.*

*Students will map a two-mile radius around the school and complete an inventory of that area.*

*Students will investigate the effects of transportation on student success and access to education.*

*Students will propose solutions to inequitable access created by unsafe walking routes.*

1. Standards:

*Utah State Standard for Geography 5 Economic Development: Students will describe the costs, benefits, and sustainability of development in terms of poverty rates, standards of living, the impact on indigenous people, environmental changes, gender equality, and access to education.*

1. Content Area Focus: (Geography, History, ELA, Science, Math, etc.):

*Geography*

1. Describe the steps of each phase include any frontloading, differentiation, or strategies that supported students during the phase (i.e. QFT), and resource links to organizations that came to talk with students or other resource info, and tips for teachers :

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| **Phase** | Outline Steps During Phase (include frontloading and differentiation, use of specific strategies, etc.) | Resource links to organizations, visual or audio media, or other resources you used during instruction or provided to students for their inquiry (please indicate if it was for instruction or for students’ inquiry) | Tips for teachers: What do teachers need to know that you now know after your first run with this GI unit? |
| **Intro** | We began the semester with an intro to GeoInquiry.  We used the QFT technique from Dessie Olson’s PD.  Before officially beginning the Ask phase, we accessed student prior knowledge using the “Mapping Obstacles to school” activity on canvas.  We took a walking field trip of the area around our school to determine hazardous walking conditions.  We viewed videos of other GeoInquiry projects and identified questions other students asked.  We read Nat Geo case studies to identify the GeoInquiry question and the action.  Students used padlet to create a mind map of causes and effects of obstacles to school.  We used a Nearpod presentation and the GeoInquiry Question formation guide to create our possible GeoInquiry questions.  We used a collaborate board inside the Nearpod presentation to brainstorm potential audiences for our Act Phase.  Next, we wrote possible GeoInquiry questions on a collaborate board inside the Nearpod presentation. Students “hearted” their favorite question. | Intro to GeoInquiry PPT <https://1drv.ms/p/s!Aoma8iDrtOlzrAvD-f_Ek-JPmdCj>  See canvas assignment “What is GeoInquiry?”  QFT PPT <https://1drv.ms/p/s!Aoma8iDrtOlzrA3kU8jzrT2U31h8>  See canvas module 1 “Getting started”, assignment “Mapping obstacles to school.” Students identified neighborhoods in SLCSD that feed into WHS. Next, we used google maps to determine the major obstacles to WHS from those neighborhoods.  We used survey 123 to map the road hazards. We thought we might use the data to build layers on a map.  The video is here <https://youtu.be/BIDAN3kaGhQ> . You can find the assignment in canvas under the Ask module “youtube video”.  Look for the “Questions in case studies” assignment in canvas under the Ask module.  There is a Padlet here <https://1drv.ms/w/s!Aoma8iDrtOlzrBno9UDY6Dzs_4FS>  The Nearpod is here <https://share.nearpod.com/Hqrk7bZkSW>  The GeoInquiry Question Formation Guide is based on the Geo-Inquiry Tuberic. I just adapted it to be more specific to our project. <https://1drv.ms/w/s!Aoma8iDrtOlzrBAV-asIRuAqpI05>  Here are the collaborate boards inside the Nearpod presentation <https://1drv.ms/w/s!Aoma8iDrtOlzrAqTkXaH7A_Pv0i3> | Before beginning any discussion on the project, do lots relationship building. My students were reluctant to participate in the project due to shyness and anxiety of speaking around others. I worked around shyness by asking students to use mediums like canvas and Nearpod to write, rather than speak.  We did not really use any of the survey 123 data, because we did not use ArcGis to build our maps. I wish I knew how to build maps in ArcGis prior to planning this project. I did not feel confident in my ability to learn and teach ArcGis during the school year.  The Ask phase was nonlinear. We didn’t begin class with enough background knowledge to formulate a GeoInquiry question, so we dipped in to the collect phase before going back and refining our GeoInquiry question.  We were unable to refine our GeoInquiry question until we identified the audience for our call to action.  The “Geo-Inquiry Questions” (Student worksheet 1) was confusing as a sorting tool. There was no answer key. Some questions were obviously not GeoInquiry questions, but it was challenging to determine which questions were GeoInquiry questions. |
| **COLLECT** | Guest speaker- Antonio from the Brown Berets  Guest speaker- Tom Millar, City / Transportation Planner with SLC  We interviewed students who are affected by lack of transportation. | We used a form for creating question for guest speakers. The form is here: <https://1drv.ms/w/s!Aoma8iDrtOlzqjK0xE_e6XDrf4UQ>  We wrote a set of interview question <https://1drv.ms/w/s!Aoma8iDrtOlzqnu1NOednMuqaplS> | Antonio is a local activist and community builder. His organization has been working on the pedestrian safety issues around the bridge. Students asked Antonio questions about gentrification and unequal access to services between “Eastside” and “Westside” neighborhoods in our community.  Tom Millar is a City / Transportation Planner with SLC. He has been working on a pedestrian bridge above the overpass at 300 N. He brought a colleague, Grant Farnsworth, from UTA along for the visit. Mr. Farnsworth suggested we complete the “safe routes” process for WHS, even though high schools in Utah are not legally mandated to do so.  My class felt student interviews were important because they would make a compelling Geo-Inquiry story. Students felt that allowing impacted students to tell their stories firsthand might inspire our School Community Council to take action. |
| **VISUALIZE** | We completed the “Safe Routes Web Quest”.  SNAP Users Guide First Read  We walked around the neighborhoods around our school to collect inventory data.  What is GIS?  Walking field trip to take inventory. | See “Safe Routes Web Quest” on canvas under modules in Phase 3: Visualize. <https://slcschools.instructure.com/courses/40308/assignments/99461?module_item_id=171697>  See “SNAP User’s Guide First Read” on canvas under modules in Phase 3: Visualize <https://slcschools.instructure.com/courses/40308/assignments/99887?module_item_id=172084>  See “What is GIS?” on canvas under modules in Phase 3: Visualize <https://slcschools.instructure.com/courses/40308/assignments/100697?module_item_id=172846>+  Photos of the Safe Routes inventory we took are here: <https://1drv.ms/u/s!Aoma8iDrtOlzrCyw0M1Uud7glVBF> and <https://1drv.ms/u/s!Aoma8iDrtOlzrC1dd7uadW_bl4Nv> | Students needed a lot of frontloading before they were able to conceptualize the necessity for a “Safe Route”.  Not all students completed the data entry on the “safe routes” program, but all of the students did understand the basics of the software because they read the user’s guide. Students who were actively doing data entry completed subsequent reads.  The safe routes program requires an inventory of stop signs, crosswalks, traffic lights, and road hazards. I printed street maps and we physically walked the streets to take inventory.  Students needed to understand the basics of GIS in order to use google maps and the Safe Routes software. This is a front loading activity.  Students quickly realized that walking the 2 mile perimeter of our school would be challenging. They began to use google street view to virtually survey the streets.  Students also used google maps to find the 2 mile walking perimeter around our school. |
| **CREATE** | Students worked with Spyhop to create a video. | Our video can be found here <https://www.youtube.com/watch?v=zLCM8DF8L3M&t=14s>  The script can be found here <https://1drv.ms/w/s!Aoma8iDrtOlzrC6JeCwJwr7ybarG>  A handy form for tracking waivers can be found here <https://1drv.ms/w/s!Aoma8iDrtOlzrDCMSF-b71y3vzGa>  A sample of a list of daily jobs can be found here <https://1drv.ms/w/s!Aoma8iDrtOlzrC9kFyH8WejaZQ5I> | Spyhop was a valuable resource. It is very helpful if the teacher has some background knowledge in filmmaking.  Students did storyboard their film. They did not use the Nat Geo template. Instead, they created their own.  At this point, students began to specialize in particular tasks. We began each day with a “job list” showing what students should work on. |
| **ACT** | Activate game on icivics.org  We presented our Geo-Inquiry story and call to action to our School Community Council.  We may present to the school board. | A link to Activate is here: <https://www.icivics.org/games/activate>  A supplementary quiz is available in teacher resources at icivics.org or on my canvas page under the “Phase 5: Act” module at <https://slcschools.instructure.com/courses/40308/modules>  I attended a SCC meeting 2 months prior to our class presentation to obtain permission from our SCC. A copy of the proposal I provided SCC members is here <https://1drv.ms/w/s!Aoma8iDrtOlzrDJFpGNUgxsEseQQ>  We compiled our findings and shared them at the SCC meeting. A link to that is here: <https://1drv.ms/w/s!Aoma8iDrtOlzrDNEX99WQEHgRxdO> | Activate helped my students understand which actions are appropriate and practical.  The SCC tasked us with surveying parents and presenting to the school board.  The film made a powerful impact on the SCC. They seemed motivated to help. |

1. What kind of school or district support is useful?

The support of my school librarian was invaluable. I really could not have done it without her. She supplied us with resources, time, and knowledge. She even chaperoned our field trips.

Admin support was also very important. I visited my admin well before project implementation to garner his support.