**Planning the inquiry**

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| **1. What is our purpose?**  **To inquire into the following:**   * **Transdisciplinary theme:**   How we organize ourselves   * **Central idea:**   Everything, from plants to politics, has structure that can be analyzed and understood  **summative assessment task(s):**  What are the possible ways of assessing students’ understanding of the central idea? What evidence, including student-initiated actions, will we look for?  -Model of plant and animal cells  -Government opinion paper/article  -Compare/contrast DIY and official classification system  -City Design project  -Performance Matters Unit 2 Post Test  Art/Mahon - 5th grade students will be learning about the ceramic process. We will discuss and organize clay in all stages from wet clay, to leather hard, to glazed projects. We will also learn about what causes our clay to move through each stage of the ceramic process.  Spanish/Garcia - Line of Inquiry: “Every celebration has a purpose. Ss will inquiry about what is the purpose of the Day of the Death Celebration in Mexico.  SPED/Rivera- All special education students will work towards their IEP goals as it pertains to summarizing, and understanding cells practicing organizations skills. The gen-ed teacher and the sped teacher will work on giving accomodations, in accordance with the IEP. | Class/grade: 5 Age group:  School: Copeland School code:  Title:  Teacher(s): Yeldell, Jackson, Wallace, Mahon (Art), Garcia (Spanish), Rivera (SPED)  Date:  Proposed duration: 8 weeks  **2. What do we want to learn?**  What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?  Function, Causation, Form  Related Concepts: classification, order, structure, systems, organization, citizenship  **What lines of inquiry will define the scope of the inquiry into the central idea?**  -Every function has a purpose  -changing environment causes structure to change  -human systems are formed in order to organize society  -organization helps us to understand the world  **What teacher questions/provocations will drive these inquiries?**  -What is a cell?  -What is structure?  -what does it mean to function, or have a function?  -what does it mean to organize?  -how is society organized?  -can current systems be changed to be more organized?  -do systems need to change? Can they remain static?  -how does US government work?  How do we change government?  How was US government intended to work?  How do cities work?  What do cities need to function?  Who decides how a city should look?  Art/Mahon - How does clay change over time?  Spanish/Garcia - What is a celebration? What are some cultural celebrations here in the United States? |
| **3. How might we know what we have learned?**  *This column should be used in conjunction with “How best might we learn?”*  What are the possible ways of assessing students’ prior knowledge and skills? What evidence will we look for?   * Performance Matters Unit 2 Pre Test * What is structure? Can you think of an example of something that has structure? Writing to examine prior knowledge * KWL chart for cells * Write what you know about government, how does our government work? Share and Exhange ideas * Create your own classification system prior to explanation of the official system * what do cities need? list in writing notebook   Art/Mahon - 5 - Students will start with pieces of clay in every stage of the ceramic process and work together to place them in a timeline to gauge their prior knowledge.  Spanish/Garcia - Thinking routine: I used to think...now I think... Ss watch the Day of the Death celebration and share some ideas about this Mexican celebration.  What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?  -teacher observation  -classroom observation  -ongoing inquiry notebook  -class discussions  Art/Mahon - 5- Identifying clay in different stages of the ceramic process.  Spanish/Garcia - 5-Ss will make a picture dictionary about the Day of the Death.  SPED/Rivera-To introduce organizing in a tactile way you can always find a puzzle of a cell and have the students put the puzzle pieces together and label them to check understanding. | **4. How best might we learn?**  What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?  **Week 1 – Animal and Plant Cells**   * M-KWL chart, what is a cell? pointillism art * T-Microscopic picture of cells/compare and contrast * W-Continue exploring microscopic images of cells, what structures do we notice? * TH-Draw and Label Animal Cell Structures * F- Draw and Label Plant Cell Structures   **Week 2 – Animal and Plant Cells**   * M- breakdown animal cell components * T- breakdown plant cell components * W- making connections from cells to other structures * TH- work on cell models * F- test on animal/plant cells and Present cell models to class   **Week 3 – Government Structure and Constitution (Elections)**   * M- Write what you know about government, how does our government work? Share and Exhange ideas * T-Branches of gov’t with amendment process graphic organizer * W-Amendments to our Constitution discuss the important ones (15,19,23,24, 26) do we need changes? * TH-Mandatory and Voluntary Responsibilities (Voting, Citizenship, Election) * F-Create your own Presidential Election Address to the People include changes needed   **Week 4 – 1975 – 2001 Government and Technology (Elections Cont.)**   * M- Major changes due to technology, Election focus * T- How would you run the country as President – Opinion writing * W- no school * TH-create an election sign * F- Finish Opinion paper and present   **Week 5 – Classification System**   * M- Introduction to Classification: How do we classified items? Create your own classification system * T- Classifying Animals- The Zoo is Loose * W- Have (Vertebrates-Backbone) & Have Nots (Invertebrates): Building a Backbone. * TH- Using a Dichotomous key: * F- Magic Book/ Student Research: Make a classification book to keep research in   **--THANKSGIVING BREAK--**  **Week 6 – City Building: History to Today: What do Cities need to survive? (compare, list necessary structural components)**   * M- what do cities need? list in writing notebook ,intro city planning project, what is urban planning * T-ancient settlements study * W-medieval settlements study * TH-18/19 century city/town study * F- modern city study   **Week 7 – City Building: Begin the process (Constructive and Destructive Processes/engineering design/compare back to cells)**   * M-what will cities look like in the future? independent brainstorm (living, work, education, travel, leisure, water, air, garbage, sewage, food, growth, new tech) * T-assigned groups, roles, share ideas, begin group planning * W-finalize group “vision”, name of city, initial land use map * TH-present ideas, receive problematic location (constructive and destructive), meet as group to address issue and modify plan as needed * F- begin preparing for build week and have initial plan approved by “shareholder”   **Week 8 – City Building: Design a City (group or individual TBD) (geometry, multiplication arrays)**   * M-what is a deadline? divide and conquer individual items to be modeled for city presentation, create rubric as class * T-finish individual proposals for models, present to group for approval and critique, begin gathering materials * W-build model for final presentation * TH- Group come back together, share models, make necessary changes, prepare presentation for class * F- Half day, Present and reflect on Future City Designs   Spanish/Garcia - Students will make a story about the Day of the Death.    **--WINTER BREAK--**  What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?    Spanish/Garcia - 5- Profile: Reflective and caring; Attitudes: Respect and Curiosity  SPED/Rivera: Teachers and Co-Teachers will collaborate on reinforcing the learner profile attributes in accordance with SPED students IEP. |
| **5. What resources need to be gathered?**  What people, places, audio-visual materials, related literature, music, art, computer software, etc, will be available?  -<https://www.washington-apa.org/assets/images/Youth_in_Planning/2016_Updates/future%20city%20template%20lawlor-with%20scb%20edits%205-18-16.pdf>  -books, webpage, videos on ancient civilizations  -constitution hard copy : <https://www.archives.gov/founding-docs/constitution-transcript>  -classification game- the zoo is loose  -dichotomous key: <https://ib.bioninja.com.au/standard-level/topic-5-evolution-and-biodi/53-classification-of-biodiv/dichotomous-keys.html>  -road to the presidency game: <https://www.icivics.org/games/win-white-house>  -examples of pointillism online: <https://www.google.com/search?rlz=1C1GCEA_enUS900US900&sxsrf=ALeKk01Yi36F4KVq5Mob9mTgbLkD4209Yw:1602677765252&source=univ&tbm=isch&q=pointillism&sa=X&ved=2ahUKEwieiIz3h7TsAhUCmuAKHa-aAQoQjJkEegQIBhAB&biw=1366&bih=576&safe=active&ssui=on>  Art/Mahon - 5 - Timeline and clay examples.  Spanish/Garcia - 5- Videos, songs, games, word search, web pages, and flashcards about vocabulary.  How will the classroom environment, local environment, and/or the community to use to facilitate the inquiry?  -media specialist for specialized books, and research inquiry for opinion writing  -Video conference with senior civil engineering student at UCF  Art/Mahon - 5 - Examples around the room for students to look at.  Spanish/Garcia - K to 5- Teacher will display some Spanish works in the Pre K hall.  SPED/Rivera SPED room will display work from FACE to FACE students and virtual students on bulletin boards. | |

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| **6. To what extent did we achieve our purpose?**  Assess the outcome of the inquiry by providing evidence of students’ understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.    Yeldell- Students were able to discuss parts of cells, apply humor to the cell translation projects, and ask questions and perform their own research when it came to adding/changing amendments and creating their own cities! Students were able to make connections to cells, government, and cities by noticing patterns in organization- mainly that each had components with specific parts to play- showing that they understood the concept of systems.  Jackson- Students were able to distinguish between the several types of cells, define organelles with the cells, and compare the plant cell and animal cell. Students continued to learn more about the cells by using research on their assigned organelles and using opinion piece writings on why their organelle is important to the cell.  Wallace –Students were able to draw and identify different cells and the organelles with the cells. Students made connections from the “jobs” that organelles played to the jobs within communities and government.  Spanish/Garcia - 3-5: Students connected to the Unit through the perspective key concept by understanding that other cultures (Colombians) have their own beliefs that make them celebrate Christmas in a special way.    How you could improve on the assessment task(s) so that you would have a more accurate picture of each student’s understanding of the central idea.  Yeldell-We were unable to teach classification due to virtual learning, which I felt contributed poorly to the post assessment. The assessments worked well, I appreciate Performance Matters as a tool for giving a unit assessment that breaks down each standard and DOK. The students work on their city projects could have included more individual writing, I placed most of the focus on group work, so it was harder to assess the final product and individual contributions.  Jackson- The classification part of the unit was unable to be assess due to the being abrupt stop in regular learning. It gave students a challenging time having students understand the whole central idea. The other assessments worked well with all the other information taught, however, it did cause students to not do well on the performance matters assessment.  Wallace – OA leaners find it hard to work with others (groups) and move forward in the learning process due to limited educational structure in the individual learning environments. Having more synchronous time with students daily is IMO (in my opinion) would help students to have a deeper understanding.  Garcia/Spanish - K-5: By showing different examples of beliefs are part of our Identity.  What was the evidence that connections were made between the central idea and the transdisciplinary theme?  Garcia/Spanish K-2: Beliefs as part of our identity. | **7. To what extent did we include the elements of the PYP?**  What were the learning experiences that enabled students to:   * develop an understanding of the concepts identified in “What do we want to learn?” * demonstrate the learning and application of particular transdisciplinary skills? * develop particular attributes of the learner profile and/or attitudes?   In each case, explain your selection.  Yeldell-  What do we want to learn- students had multiple conversations discussing systems as simple as backpacks and the functions of each of those pieces. They were able to use that language effectively to describe components of three larger systems, and the functions of each of those components.  Transdisciplinary skills- students had to research, work in groups, actively problem solve and be caring with their teammates, and take risks to solve problems that they were (intentionally) not initially prepared for.  Jackson-  Transdisciplinary Skills- Students had to work collectively as a whole and independently to complete research on the topic at hand students. Students also had to use problem solving skills to make advances in group projects.  Develop Attributes- Since this unit needed more critical thinking skills and allow students to follow into many learner profiles and attitudes. Students had to be risk takers, thinkers, inquirers, and openminded when talking about the jobs within a cell and using their research to help write their opinion piece.  Wallace   * Students created a kwl to decide what they wanted to learn about cells. These “wonders” brought the students to see connections between other systems, making them think critically about how communities work because of the jobs within these systems. * Students had to research with a partner, a particular organelle and show the connection to a “job” within their community. * Students were inquirers, thinkers, and open-minded when making connections.   Garcia/Spanish - 3-5: Students made a video and a big poster about how Colombians celebrate Christmas by following their personal beliefs and traditions. |
| **8. What student-initiated inquiries arose from the learning?**  Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.  Yeldell- How do cells know what to let in through the membrane? Why do plant cells have more parts even though they do less work? What if human cells had walls? Who decides amendments? Can anyone propose an amendment? Why do we not talk about amendments more? If some laws hurt people-why do we have them? What else do cities need besides people and jobs? Why do we need so many bus stations? How do cities pay for buses? Who decides where roads go? Why do people make cities where there are natural disasters?  Jackson-How do cells know their functions within the body? Can cells move from area of the body to another and adapt as humans do? What if human cells had cell walls? Would it make a difference? Do cells have laws to follow like we do. What happens to bad cells. Are amendments necessary since we do not always learn about them?  Wallace-What if a cell decides it wants to do a different job? If you are healthy, and take care of your skin, do your skin cells still die? Why are some communities better than others if they have the same jobs/functions? How does a city even begin?  Spanish/Garcia - 3-5: Students were very curious about the “Day of the little Candles”, celebrate it on December 8th in Colombia. 2 students created a hip/hop song by describing how Colombians celebrate Christmas.    At this point teachers should go back to box 2 “What do we want to learn” and highlight the teacher questions/provocations that were most effective in driving the inquiries.  Spanish/Garcia - 3-5: How our personal beliefs can impact our actions? What is the purpose of the celebration of the “Day of the little candles” in Colombia?    **What student-initiated actions arose from the learning?**  Record student-initiated actions taken by individuals or groups showing their ability to reflect, to choose and to act.  Yeldell- Students went above and beyond on the city building project, researching and adding systems that even I hadn’t thought of! One group added a bullet train to expedite getting people to and from work faster, because they felt that the more down time people had, the happier they would be AND the more money they would spend! Another group had a city in a desert location and chose to create greenhouse gardens with tinted windows that they could adjust the tinting on depending on the heat and plant! I was constantly impressed by their initiative.  Jacksons- Students took their time and carefully research valuable information needed for their organelle design and opinion piece. Students even openminded on the ideas of their classmates, and reflective on the feedback that was given and received. One student even offered to learn more about their assigned organelle by researching a more depth definition of its function. I was proud of the students because they took charge of their own learning and made it, they're in every way.  Wallace – A few individual students took interest in their classmates research and asked questions once a student presented their findings. They pushed their classmate to find examples to prove nd apply understanding. | **9. Teacher notes**  Spanish/Garcia - K-5: This unit was a great opportunity for me to share with students how we (Colombians) celebrate Christmas, share some traditions, culture, and language. I really enjoyed it and students too. |

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