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**Important**

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**Planning the inquiry**

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| **1. What is our purpose?****To inquire into the following:*** **Transdisciplinary theme: How the World Works**
* **Central idea :**

**Scientific and technological advances impact the way people live.****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?Performance Matters TestBenchmark Assessments RCBOE Unit Test Choice boardsPowerPoint Presentations Student discussions QuizzesSpanish/Garcia - will have a reading in Spanish about “Day and night” | Class/grade: 4th Age group: 9-10School: Copeland Elementary School School code: Title: Unit 3Teacher(s): Nelson, Brown, Hall, Garcia Date: January 12, 2021- February 19, 2021Proposed duration: 5 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?* Form
* Causation
* Change

**Related Concepts*** Evaluate
* Communicate
* Predict
* Cycle
* Climate

**What lines of inquiry will define the scope of the inquiry into the central idea?*** Scientific tools are used to collect information and help make decisions.
* Through the use of scientific tools, we can adapt to different types of weather.
* Investigations can show how water flows through a cycle.

**What teacher questions/provocations will drive these inquiries?**Weather Tools – Turn and Talk – Blind inquiry into weather toolsTeacher made weather video – Teachers will create a video acting as the meteorologists. Outdoor cloud drawing – matching drawings to the cloud chart. Read aloud – Cloudy with a Chance of Meatballs Water Cycle – Demonstration/Video (teacher made or through one of our science resources) Water Cycle – Magic School BusSpanish/Garcia - Map concept about Day and Night vocabulary English/Spanish |
| **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?* **LINK Chart**
* List everything you know.
* Inquire about what you want to know.
* Now we are going to take notes.
* What do you know now?
* **KWL Chart (**Focus on K and W)
* What I know?
* What I want to know?
* What I learned?
* **KWHLAQ Chart (**Focus on K, W, and H)
* What I think I know?
* What I want to know?
* How do I find out?
* What I learned?
* What actions do I think?
* What new questions do I have?
* **Unit Pre-Assessment**
* **Spanish/Garcia -Ss will make a reflection about weather in Spanish.**

What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?* Scientific tools are used to collect information and help make decisions. -Assessed with Student made weather video. We will look for students ability to use weather tools and collect information to produce thier video.
* Through the use of scientific tools, we can adapt to different types of weather. -Assessed with Chart the Weather: We will look for students ability to differentiate different kinds of weather and understanding of how to adapt to each type of weather.
* Investigations can show how water flows through a cycle.- Assessed with Water Cycle Project: Students will develop models to illustrate multiple pathways water may take during the water cycle (evaporation, condensation, and precipitation) We will look for accurate models of the water cycle to determine student understanding.
* Spanish/Garcia - Ss will use the weather vocabulary in context by learning a song.
 | **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?Week1: Social Studies:Standards: SS4H3 Explain westward expansion in America. a. Describe the causes and events of the War of 1812; include the burning of the Capitol and the White House and the writing of “The Star Spangled Banner.”Provocations:* Role Play: Teacher will assume the role of President James Madison. With the students, they will brainstorm solutions on how to solve America’s pending problems with Britain and France in the early 1800s. Students will learn about Madison’s actual choice to declare war, thus beginning the War of 1812. (Essential Question: How could the use of today’s technology improved James Madison’s brainstorming?)
* Virtual Fieldtrips: The US Capitol and The White House

 <https://www.youtube.com/watch?v=bG0ZIW8I77s>  <https://www.youtube.com/watch?v=qvgq1awXNzs> (Essential Question: What scientific and technological advancements allowed us to visit the White House and the US Capitol?)Activities: * KWL Chart: Students will share what they Know, Want to know and what they Learn about the War of 1812.
* What Do You Think? Put a T if you think the sentence is true, and an F if you think the sentence is false.
* War of 1812 Movie Poster: Students will create a movie poster for the War of 1812, Students will imagine that they have been hired by a filming company to advertise for a movie about the main events of the War of 1812.

Week 2: Social Studies/Science: Standards: SS4H3 Explain westward expansion in America. b. Describe the impact of westward expansion on American Indians; include the Trail of Tears, Battle of Little Bighorn and the forced relocation of American Indians to reservations.S4E4. Obtain, evaluate, and communicate information to predict weather events and infer weather patterns using weather charts/maps and collected weather data. a. Construct an explanation of how weather instruments (thermometer, rain gauge, barometer, wind vane, and anemometer) are used in gathering weather data and making forecasts. b. Interpret data from weather maps, including fronts (warm, cold, and stationary), temperature, pressure, and precipitation to make an informed prediction about tomorrow’s weather. Provocations:* Trail of Tears video: <https://www.youtube.com/watch?v=1Q5Z4UUitdU>
* The Battle of Little Bighorn video: <https://www.youtube.com/watch?v=nZzfQQJTz50>
* Turn and Talk- Weather Tools– Blind inquiry into weather tools
* Teacher made weather video – Teachers will create a video acting as the meteorologists
* Question: If you were a meteorologists, how would you report extreme weather.

Activities:* Student made weather video: Students will use teacher made video as an example to create their own weather videos. Students can work individually or with a partner.
* Simulation Activity: Shortly after they arrive in class, the teacher will read an announcement to the class telling them to line up immediately because some other students want to take over their classroom. They will not be allowed to take anything with them. The teacher and the students will then take a walk all the way around the school searching for an empty classroom to settle in. Alas, they will soon notice that there are no empty classrooms available. Briefly the teacher will have them all sit in the hallway where he/she will bemoan the fact that there seems to be no place to go. Together they will discuss what they might do. As the minutes pass, this activity will have had its intended effect of creating in their minds a sense of injustice and everyone will then go back to their classroom where they will discuss what just happened. The teacher will ask: What feelings did you have during this forced walk? How did it feel to be told to leave without taking anything with you? What were your thoughts as we walked throughout the school with no place to go?

Week 3: Science/Social Studies Standards: SS4H3 Explain westward expansion in America. c. Describe territorial expansion with emphasis on the Louisiana Purchase, the Lewis and Clark expedition, and the acquisitions of Texas (the Alamo and independence), Oregon (Oregon Trail), and California (Gold Rush and the development of mining towns).S4E4. Obtain, evaluate, and communicate information to predict weather events and infer weather patterns using weather charts/maps and collected weather data. c. Ask questions and use observations of cloud types (cirrus, stratus, and cumulus) and data of weather conditions to predict weather events. d. Construct an explanation based on research to communicate the difference between weather and climate.Provocations:* Read Aloud – Cloudy with a Chance of Meatballs

Activities:* Map Activity: Give out map activity sheets so students can color in the areas to see the size of the Louisiana Purchase.
* Outdoor cloud drawing: – Matching drawings to the cloud chart.
* Chart the Weather: [Graphing the Weather (uen.org)](https://www.uen.org/lessonplan/view/18981)

Week 4: Science: Standards: S4E3. Obtain, evaluate, and communicate information to demonstrate the water cycle. a. Plan and carry out investigations to observe the flow of energy in water as it changes states from solid (ice) to liquid (water) to gas (water vapor) and changes from gas to liquid to solid.Provocations: * Water Cycle Demonstration/Video: (teacher made or through one of our science resources)

Activities:* Water Cycle Activity: https://www.generationgenius.com/videolessons/water-cycle-video-for-kids/?gclid=Cj0KCQiA0fr\_BRDaARIsAABw4EsNvN6IBtYG586KCAX5CPc-ampxg4ENjJZDaz04h7iQGxPMw\_iNU7kaAv8DEALw\_wcB

Week 5: Science: Standards: S4E3. Obtain, evaluate, and communicate information to demonstrate the water cycle. a. Plan and carry out investigations to observe the flow of energy in water as it changes states from solid (ice) to liquid (water) to gas (water vapor) and changes from gas to liquid to solid. b. Develop models to illustrate multiple pathways water may take during the water cycle (evaporation, condensation, and precipitation). (Clarification statement: Students should understand that the water cycle does not follow a single pathway.) Provocations: * Magic School Bus Video: Wath Magic School bus video explaining the Water Cycle

Activities: * Water Cycle Project: Develop models to illustrate multiple pathways water may take during the water cycle (evaporation, condensation, and precipitation)

Spanish/Garcia Ss will make a picture dictionary about weatherWhat opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?

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| * Learner Profile of the month
* Using the mobile library to get books that represent the Learner Profile
* Classroom Learner Profile “Star Seat”
* Spanish/Garcia Inquirer
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| **5. What resources need to be gathered?**What people, places, audio-visual materials, related literature, music, art, computer software, etc, will be available?MyOnBrain Pop iReady ReadworksFlocabulary GADOE EnvisionSocial Studies WeeklyMedia Center BooksVirtual Fieldtrips: The US Capitol and The White House  <https://www.youtube.com/watch?v=bG0ZIW8I77s>  <https://www.youtube.com/watch?v=qvgq1awXNzs>Trail of Tears video: <https://www.youtube.com/watch?v=1Q5Z4UUitdU>The Battle of Little Bighorn video: <https://www.youtube.com/watch?v=nZzfQQJTz50>How will the classroom environment, local environment, and/or the community to used to facilitate the inquiry?  |

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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. Hall- The amount of inquiry in this unit went up a lot during this unit, most likely because many of the students coming back F2f. Also with that being the case, we were not able to fully appreciate this unit. The students did come to have a good understanding of the unit and were able to make many connections. The Simulation that we did really had an impact on students understanding.Brown – The outcome of inquiry played a very important introduction to many of the learning attributes that we provided in the standards. Many of the students were super excited for returning back into the class room setting some were anxious and even nervous from an ib perspective many of the students were comfortable with their current content knowledge. Most of the ib assessments and engagements students remembered and were excited to regurgitate. Nelson- Virtual students were able to show understanding of the Central Idea. The students struggled at first to understand that Scientific and technological advances impact the way people live. After they completed activity that allowed them to break apart the central idea they better understood. 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.Hall- I would definitely get the pre assessments to them earlier than we were able to. Because of quarantine we were not able to stay on a timeline that worked well with the way we planned this unit. I think we did the best we could and students got what they needed.Brown- One of the biggest concerns with the assessment was due to lack of instruction most students needed simplification of what to do as far as understanding on the Pre – assessment so definitely will zoom in and focus more on making the directions more simplified. Nelson: To improve on the assessment task of understanding the Central Idea, I incorporate more time to refer to the Central Idea. The questions that were on the assessments were connected directly to the standards. My virtual students are doing much better with understanding the Central Idea.What was the evidence that connections were made between the central idea and the transdisciplinary theme? Hall- Students were able to make many connections with how much transportation has changed since the westward expansion. They could clearly see the advances that have been made and how that has affected the way we live now. Brown - Students were able to compare and contrast the different connections with how the transportation changed . They were able to take notes and use T charts to break down the details on the subject. Nelson- Virtual students were able to make the connection to the Central Idea and the theme by researching and understanding the technical changes that took place during the Westward Expansion.  | **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. Hall- The role play and the 1812 movie poster really helped students to develop and understanding of the concepts we discussed in the previous section. I also noticed how the student were able to demonstrate thier learning by making the connection during the simulation between the trail of tears. This really showed how knowledgeable and open minded they are.Brown - We often use our creative skills to make learning very simplistic yet very intriguing , and I must say by making sure we stay in the ib guidelines but still making the topic very educational we use our very own talents. My students love to use the role- play it gives them the chance to step outside the box and to move around. Normally some students are a little sleepy so it helps the blood flow. In the Past we have completed the Boston Tea Party role play and now in the present we had the opportunity to build a connection during the simulation between the trail of tears. Nelson- * Concepts:

Form: What is it like?Causation: Why is it the way it is? Change: How is it changing? * Transdisciplinary Skills:

Social: Students participated small group activities (breakout rooms). This allowed them to collaborate in small settings. ·Self-Management: Students were required to use time management and organization to complete independent assignments on their Asynchronous learning days. * Learner Profiles:

Knowledgeable: Students were able to show that they were knowledgeable when they created their Ecosystems. Students shared their knowledge with their classmates. Students were also required to listen to other classmates to gain their knowledge on the topics being presented.  Inquirer: Students were open-minded while listening to the book Cloudy with a Change of Meatballs. Risk-takers: Students were risk-takers as they researched independently.  |
| **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.Hall- Students wanted to know why the Native Americans were not treated in a nice way and we were able to reflect back on previous units when we discussed how they came from Britian and did not give Native Americans the respect they deserved previously. **Brown – Students was able ask questions and search for understanding on why the different cultures was treated differently. We expressed and completed a talk and turn on the differences with injustice of culture.** Nelson- Some student- initiated inquires and questions were: Why did they (Native Americans) have to leave their homes? Why were they (Native Americans) forced to leave? Did the gold fall out of the sky? Why was it called the Trail of Tears? Why didn’t they put on a jacket and take medicine while they moved? 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. **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.**Hall- Students wanted to create thier own representation of the water cycle. They did different types of interpretations through, words, dance, and song. It was very creative and they were able to make accurate depictions of the cycle.** **Brown- Students had a great time learning about the Water Cycle . We discussed Evaporation, Precipitation, Condensation . We watched the YouTube video on The Water Cycle, and how it works. We then went outside and completed a cloud watch. We sketched the different types of clouds and even compared and contrast the clouds of different colors and what the specific colors meant within the cloud. They were so excited to bring nature inside of the classroom and put their very own art skills to the test !**Nelson- My students were able to initiate many actions. One action that took place was students wanting to Meteorologists and predict the weather for the next day. The students completed this in breakout rooms, then came back to whole group to share their predictions.  | **9. Teacher notes****Mailhot Notes*** **Water/Natural Resources – Inquiry into water conservation and water wars**
* **Weather/weather cycle and weather patterns**
* **Social issues related to water – Who owns the water rights?**
* **(Natural disasters)**
* **Unequal distribution / Is it fair? - Access to clean water**
* **Water wars/Water conservation – Social Studies**
* **How the city cleans water**
* **Zoom speaker from city water plant**
* **Local conservation – Action**
* **Taking the standard and ask “How does this fit into real life?” - bigger context – teach it through real life examples\**
* **Project Wet – Resource for water unit (National)**
* **Student questions – How to change salt water into drinkable water**
* **Western Expansion – scientific and tech. Advancements (how they were used) Weather and water cycle – how to make that connection – Start with ss first – transition into the science portion related to the water cycle.**

**Spanish/Garcia:** K-5: Unfortunately, we didn’t have enough time to cover the unit of inquiry because many classes had to pivot to learn at home, included myself. So, we didn’t have the time to develop the unit ...and just few classes had the chance to connect Spanish with the Unit of Inquiry.Nevertheless, the Spanish Youtube Channel that was created in collaboration with another Spanish PYP teacher and I helped a lot to connect Ss with the vocabulary, concepts and classes that we missed face to face. |

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