

Unit of inquiry planner

Third Grade

Where we are in place and time

OVERVIEW

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|-------------------|------------------------|---|
| Grade/Year level: | 3rd | Collaborative teaching team: Ashely Freeman, Jesse Mancha, Julia LaVergne, Natalie Gervais, Elisa Segura. |
| Date: | September-October 2020 | Timeline: (continued investigation, revisiting once, or numerous times, discrete beginning and ending, investigating in parallel with others) |

Transdisciplinary theme

(Type Transdisciplinary theme here.)

Where we are in Place and Time

Central idea

Geography and natural disasters influence where and how people choose to live.

Lines of inquiry

- Maps, the information they provide, and how they've changed over time.
- Landforms and how they connect to human populations.

Key concepts

Form, Causation, Change

Related concepts

Geography, Landforms, Populations

Learner profile attributes

The learning engagements allow learners to be inquirers as they explore natural disasters and landforms. Students will use thinking skills as they analyze where to live & why and how to adapt to environment with natural disasters. Learners will be communicators when they share their explorations with classmates. Throughout the unit of inquiry, students will be reflective as they think about their successes. While sharing their real-life experiences with Hurricane Harvey and witnessing the devastation throughout the city of Houston, students gained a sense of empathy. Students developed their creativity by producing their own magazines. Students came back to school committed to their learning with a new appreciation for school and things that would otherwise be taken for granted.

Approaches to learning

- Research –Students will use research skills to gain knowledge on landforms & natural disasters from books, websites, and videos. They will also collect & interpreting data from these sources.
- Self- management – student will self-manage their progress and research through the use of a research guide and a rubric.
- Communication skills – Students will build their communication skills through presentations and peer assessments.
- Social skills – Social skills will be developed through communication with parents and peers in regard to their research. They will demonstrate respect for others as their peers present their research. They will ask knowledgeable questions in a respectful way.

Action

The teacher provides the framework for the Natural Disaster National Geographic magazine. Students then are given creative freedom to design and write their own magazine using their inquiry based feedback and text features.

- Students picked out library books on natural disasters.
- Created landforms at home to bring in to share.
- Created landform photos or printed from the internet.
- Empathy for students experiencing natural disasters.
- Watching weather across the world.
- Students brought in photos from their travels with landforms in the background to share and discuss with the class.
- **Agency:** Students chose a city from around the world to track the weather for a week, they then gave meteorologist presentations of the weather.
- Students conducted surveys with their parents and other adults to determine their natural disaster experiences.
- Students indicated they will evacuate (or encourage parents to evacuate).
- Students picked a place to research, reflected, changed their minds based on natural disasters, and chose another place.
- After mapping disasters, students reflected on why we still choose to live in areas susceptible to natural disasters.

Prompts: Overview

Transdisciplinary theme

Which parts of the transdisciplinary theme will the unit of inquiry focus on?

Central idea

Does the central idea invite inquiry and support students' conceptual understandings of the transdisciplinary theme?

Lines of inquiry

What teacher questions and provocations will inform the lines of inquiry?

Do the lines of inquiry:

- clarify and develop understanding of the central idea?
- define the scope of the inquiry and help to focus learning and teaching?

Key concepts

Do the key concepts focus the direction of the inquiry and provide opportunities to make connections across, between and beyond subjects?

Related concepts

Do the related concepts provide a lens for conceptual understandings within a specific subject?

Learner profile attributes

What opportunities will there be to develop, demonstrate and reinforce the learner profile?

Approaches to learning

What authentic opportunities are there for students to develop and demonstrate approaches to learning?

Action

What opportunities are there for building on prior learning to support potential student-initiated action?

REFLECTING AND PLANNING

Initial reflections

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.

Prior learning

Pre-assessment

- Students will view a variety of maps, such as amusement parks, zoos, museum, weather, Olympic Village, Disney Paris, and various cities (domestic & foreign) to observe and record their observations.
- Show a map then ask students what they observe, discovery wheel on landforms/natural disasters, natural hazards, graphic organizer (ex: 3 circles- in each one write what you know in each topic).
- Bring in and share different types of maps.
- Reflective self- and peer-assessments.

Connections: Transdisciplinary and past

- Math – Compare and order sizes of landforms, map scales
- Science – Identifying current location of where we are located – Planet Earth -> Poe Elementary
- Writing assignment – write a fictional story about an experience with a natural disaster.
- Social Studies – We look at the effect of previous natural disasters and the changes that they caused to the earth's surface.
- The students were able to connect firsthand experiences with hurricane Harvey to being displaced by a natural disaster.
- Home interviews became primary sources and brought home experiences into the classroom discussions

Learning goals and success criteria

- Math: (3.2) (3.2a) (3.2b) (3.2d) (3.6) (3.6a) (3.6b) (3.4) (3.4a) (3.4b) (3.6c) (3.6d) (3.6e)
- ELA: (3.9D.i) (3.9D.ii) (3.10a) (3.10b) (3.10c) (3.10d) (3.10e) (3.10f) (3.10g) (3.12b)
- Science: (3.2d) (3.2e) (3.3a) (3.6) (3.6a) (3.7a) (3.7b)
- Social Studies: (3.4a) (3.4a) (3.4b) (3.4c) (3.4e) (3.5a) (3.5b) (3.5c) (3.5d) (3.16b) (3.17a) (3.17b) (3.17c) (3.17d) (3.17e) (3.17e) (3.17f) (3.18a) (3.18b) (3.18c) (3.19a)

Ongoing assessments throughout the unit to check for understanding of content.

Summative Success Criteria: National Geographic Magazine: Students will take their detailed research and turn their new knowledge into informational writing in the form of a National Geographic magazine. Students will use text features in their writing to create authentic magazine characteristics. Students will include information about the hazards of a specific landform, precautions humans can take to prepare, and damage that their natural disaster can cause. Students will also create a spotlight to highlight a particular landform, and create interactive activities for the reader to complete on the back.

Students will be assessed using a teacher-made rubric. Allow for student-initiated actions as a form of evidence.

? Teacher questions

1. What are landforms?
2. What makes a place a good place to live?
3. How would your family's life change if you moved to Nome, Alaska? What about if you moved to El Paso, Texas?
4. How does the geography of an area affect a person's lifestyle?
5. What are some of the ways that people have changed the geography of an area?
6. How does geography influence where a person lives?
7. What are natural disasters and where are they most likely to occur?

? Student questions

- Curious about causes of natural disasters.
- How tall is a tsunami wave?
- Where do natural disasters come from?
- How do animals survive natural disasters?

Prompts: Reflecting and planning

Initial reflections

How can our initial reflections inform all learning and teaching in this unit of inquiry?

Prior learning

How are we assessing students' prior knowledge, conceptual understandings and skills?

How are we using data and evidence of prior learning to inform planning?

How does our planning embrace student language profiles?

Connections: Transdisciplinary and past

Connections to past and future learning, inside and outside the programme of inquiry

What connections are there to learning within and outside the unit of inquiry?

What opportunities are there for students to develop conceptual understandings to support the transfer of learning across, between and beyond subjects?

How can we ensure that learning is purposeful and connects to local and global challenges and opportunities?

Learning goals and success criteria

What is it we want students to know, understand and be able to do? How are learning goals and success criteria co-constructed between teachers and students?

Teacher questions

What teacher questions and provocations will inform the lines of inquiry?

Student questions

What student questions, prior knowledge, existing theories, experiences and interests will inform the lines of inquiry?

DESIGNING AND IMPLEMENTING

Unit of inquiry and/or subject specific inquiry (inside/outside programme of inquiry)

| | | | |
|---------------------------------------|--|-----------------------|------------------------------|
| Transdisciplinary theme/Central idea: | Where we are in Place and Time/ Geography and natural disasters influence where and how people choose to live. | | |
| Collaborative teaching team: | Ashely Freeman, Jesse Mancha, Julia LaVergne, Natalie Gervais, Elisa Segura. | Grade/Year level: 3rd | Date: September-October 2020 |



Designing engaging learning experiences

R=research C=communication S=social T=transdisciplinary 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?

1. Inquire about the variety of places they have lived throughout the world and what types of landforms are present. C, I, RF
 2. Explore landforms through pictures, facts, and books to learn the features. R, S, C, I, K
 3. Complete a landform graphic organizer to display research including: description, natural resources, climate, natural disasters, and importance. R, C, K
 4. Throughout the unit, anchor charts will be created by teacher & students identifying the characteristics (landforms, population, weather, natural hazards, etc). R, C, K, RF
 5. Use maps and globes, cardinal and intermediate directions to locate places, use a map scale to determine distance, identify and use a compass rose, grid system (latitude and longitude), map symbols, locate places such as Rocky Mountains/Mississippi River, map titles, map legends. R, T, K
 6. View different kinds of maps such as population/density, political, physical, etc... R, T, I
 7. Discuss population and give reasons why some areas are more populated than others. R, T, C, I, RF
 8. Explore and inquire through virtual field trips (Google Earth) important landforms such as Grand Canyon, Mt. Everest, Pompeii, Hawaii's volcanoes etc.... R, T, C, I
 9. Observe videos of natural disasters such as earthquakes, hurricanes, and volcanoes to look for fast changes to the Earth. Students will research using note facts and a variety of resources. R, S, SM, T, C; I
- develop an understanding of the concepts identified in "What do we want to learn?" Learners will develop concepts of form as they explore how landforms are shaped (created landforms out of Play-doh, illustrated dictionary of landforms), causation as to how the landforms and natural disasters are created (landforms bingo, national geographic, weather whiz kids), and the slow and rapid concept of change (weathering and erosion, mine chocolate chip cookie, weather tracking chart).
 - Simulations of natural disasters (form, causation, and change)

Literature
Virtual Field Trips
Power points
Classroom presentation



Supporting student agency

Students are provided a choice in what natural disaster their project is focused on and a choice about their method of presentation. They have a voice in how they research (books/internet/videos)

? Teacher and student questions

- Curious about causes of natural disasters.
- How tall is a tsunami wave?
- Why don't tsunamis/wildfires happen here?
- What time of the year do tornadoes happen?
- Why do some natural disasters only occur at certain times and others at all times?
- Why do people choose to still live near natural disasters?
- Waves of tsunami vs. regular waves...forces of the moon?
- Why doesn't the force impact people?

👁️ Ongoing assessment

- The parent/student/teacher learner profile report
- Parent interviews – Students created questions of their choice about natural disasters about personal experiences of others. They took home the interview and interviewed parents, guardians, or other peers to gain factual information about their experiences with natural disasters. Students then presented the results and the information that they gathered through the learning experience.

🌐 Making flexible use of resources

Websites:

- www.brainpop.com (soil/rock, changes, natural disasters, erosion, and layers of the earth)
- www.discoveryeducation.com (maps, symbols, geographical features, landforms and living patterns, earth's physical features, how mountains affect life, Magic School Bus Volcano)
- <http://news.bbc.co.uk/2/hi/science/nature/4588149.stm> - small video on fast changes
- Planet Earth <http://www.texasalmanac.com/topics/environment/environment>
- <http://ethemes.missouri.edu/themes/1247>
- <http://yourchildlearns.com/map-puzzles.htm>
- <http://www.mrprintables.com/map-of-the-usa-jigsaw-puzzle.html>
- www.kids.nationalgeographic.com
- www.ducksters.com Science and Social Studies Weekly
- Google Earth
- Weather Whiz Kids www.dogonews.com

A variety of books pulled from the school and public library, Scholastic books on Natural Hazards

A variety of maps

🗣️ Student self-assessment and peer feedback

- Student led conferences.
- Rubrics provided for self assessment.

- Peer assessment through feedback.

Ongoing reflections for all teachers

- Research skills need continued support, with paraphrasing and avoiding plagiarism.
- Follow research inquiry cycle.
- Learners need opportunities for research, other than the internet.
- Primary sources (ex: families who have experienced natural disasters) are excellent motivators for learners.
- Provide additional time for school-wide collaboration. We learned a great deal as we watched classmates' presentations.
- Perhaps, provide benchmark presentations of accomplishments throughout the unit of inquiry.
- The public library has a wide variety of natural disaster books that can be checked out for an extended period. Great resources to use in addition to internet research.

Additional subject specific reflections

Brochures indicate an understanding of how geography and natural disasters may influence where and how people choose to live.

Prompts: Designing and implementing



Designing engaging learning experiences

What experiences will facilitate learning?

For all learning this means:

- developing questions, provocations and experiences that support knowledge and conceptual understandings
- creating authentic opportunities for students to develop and demonstrate approaches to learning and attributes of the learner profile
- building in flexibility to respond to students' interests, inquiries, evolving theories and actions
- integrating languages to support multilingualism
- identifying opportunities for independent and collaborative learning, guided and scaffolded learning, and learning extension.



Supporting student agency

How do we recognize and support student agency in learning and teaching?

For all learning this means:

- involving students as active participants in, and as co-constructors of, their learning
- developing students' capacity to plan, reflect and assess, in order to self-regulate and self-adjust learning
- supporting student-initiated inquiry and action.



Questions

Teacher questions

What additional teacher questions and provocations are emerging from students' evolving theories?

Student questions

What student questions are emerging from students' evolving theories?



Ongoing assessment

What evidence will we gather about students' emerging knowledge, conceptual understandings and skills?

How are we monitoring and documenting learning against learning goals and success criteria?

How are we using ongoing assessment to inform planning, and the grouping and regrouping of students?



Making flexible use of resources

How will resources add value and purpose to learning?

For all learning this means:

- the thoughtful use of resources, both in and beyond the learning community to enhance and extend learning. This might include time, people, places, technologies, learning spaces and physical materials.



Student self-assessment and peer feedback

What opportunities are there for students to receive teacher and peer feedback?

How do students engage with this feedback to self-assess and self-adjust their learning?



Ongoing reflections

For all teachers

- How are we responding to students' emerging questions, theories, inquiries and interests throughout the inquiry?
- How are we supporting opportunities for student-initiated action throughout the inquiry?
- How can we ensure that learning is purposeful and authentic and/or connects to real-life challenges and opportunities?
- How are we nurturing positive relationships between home, family and school as a basis for learning, health and well-being?



Additional subject-specific reflections

Inside or outside the programme of inquiry

- What opportunities are there for students to make connections to the central idea and lines of inquiry or the programme of inquiry?
- What opportunities are there for students to develop knowledge, conceptual understandings and skills to support the transfer of learning across, between and beyond subjects?

REFLECTING

| | | | |
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Teacher reflections

Research skills throughout this project require more support in regard to paraphrasing text and writing research in their own words. Learners need more opportunities for research other than the internet, such as books from the public library to share between classes. The primary sources for this project (Parent interviews) are incredibly important as they share personal experiences with students and provide excellent motivation for students to kickstart their own research.

Student reflections

Students learned a great deal of information as they watched and listened to their classmates presentations. Students gain a greater perspective on why people choose to live where they live and why people learn to be prepared for such disasters.

Assessment reflections

Students are able to produce products (magazines) that are authentic to their creativity and their research. The summative assessment allows for students to produce an informational text and use text features as appropriate in a magazine all while self guiding themselves with their rubric.

Prompts: Reflecting

Teacher reflections

How did the strategies we used throughout the unit help to develop and evidence students' understanding of the central idea?

What learning experiences best supported students' development and demonstration of the attributes of the learner profile and approaches to learning?

What evidence do we have that students are developing knowledge, conceptual understandings and skills to support the transfer of learning across, between and beyond subjects?

To what extent have we strengthened transdisciplinary connections through collaboration among members of the teaching team?

What did we discover about the process of learning that will inform future learning and teaching?

Student reflections

What student-initiated inquiries arose and how did they inform the process of inquiry? What adjustments were made, and how did this enrich learning?

How are students supported in having voice, choice and ownership in the unit of inquiry? (For example, through: co-constructing learning goals and success criteria, being engaged in student-initiated inquiries and action, being involved in self-assessing and self-regulating, co-designing learning spaces and so on).

How have these experiences impacted on how students feel about their learning? (For example, through: developing and demonstrating attributes of learner profile and approaches to learning, developing understanding of the central idea, achieving learning goals, taking action and so on).

Assessment reflections

How effective was our monitoring, documenting and measuring of learning informing our understanding of student learning?

What evidence did we gather about students' knowledge, conceptual understandings and skills?

How will we share this learning with the learning community?

Notes