Primary Years Programme

Sharing the Planet
Unit of inquiry planner

(Primary years – Third grade)

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OVERVIEW

Grade/Year level:	**3rd Grade**	Collaborative teaching team:	**Julia LaVergne, Carmen Carfello, Natalie Gervais, Elisa Segura, Kayla Reardon, Shara Tsai**
Date:	**October-November 2020**	Timeline: (continued investigation, revisiting once, or numerous times, discrete beginning and ending, investigating in parallel with others)	

Transdisciplinary theme

(Type Transdisciplinary theme here.)

Sharing the Planet: An inquiy into rights and responsibilities in the struggle to share finite resources with other people and with other living things: communities and the relationships within and between them: access to equal opportunities; peace and conflict resolution. Investigations demonstrate an ability to complete a basic investigation with simple analytical techniques, and with some partial conclusions of some relevance to study

Central idea

A balanced enviroment strengthens a species survival.

Lines of inquiry

- Resources and how humans use these resources.
- How the use of resources by humans affects the natural world
- How organisms cope when their resources are inaccessible: Can they adapt? How or why not?

Key concepts

Causation, Responsibility, Connection

Related concepts

Balance and Conservation

Learner profile attributes

Caring: Children learned that organisims depend on the responsible actions of adults in the world.
Risk-Takers: Children will become voices to speak out for thosde who need positive human intervention.
Balanced: Students realized their responsibility in creating a balanced enviroment.
Integrity: Students learned to do the right thing even when no one is watching. They learned the repercussions of their actions and how it effects the planet.
Empathy: The students felt the pain of their endangered species due to loss of habitat.

Approaches to learning

Research and Self-Management Skills

- A gradual release method is applied to structure students' self management through research. Initially teachers provide students with reliable and safe sources for researching (I.E. reputable websites and books). After receiving guidance on using the research materials and a research form to guide their learning, students are given a timeline in which to finish their research and to translate their research into the deliverable. The students are also provided with a rubric to give them another opportunity to self manage.

Cooperation with Peers through communication in a small/group basis.

- As students select their research topic, they are grouped with other students that have similar interests. They are given opportunities to meet collectively and share questions, ideas, and findings.

Action

Each child will research an endngered species and produce a product that will
a) develop a plan to raise awareness for its plight
b) offer suggestions to aid in its survival.
Some examples of student findings and actions thereof – reducing and cleaning litter/trash and asking for donations to reputable wildlife organizations
The students will explain the factors that have caused the imbalance between the natural and human worlds.
Agency: The students will do this by making a visual project of their choice such as :
a) a short documentary film
b) a public service announcement
c) a show box diorama complete with a model of an animal.
Students will present their project with their peers.
Students were motivated to use their library book choice to select books about their endangered species.

Students wanted to take-action and were eager to brainstorm ideas on how to take-action. They made personal choices to conserve. They created commercials to encourage people to help. They also researched laws that could help support a species survival.

They wondered: Can we create laws to support species survival? Can we prevent building to maintain habitats and support the prosperity of the habitats left?

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

It may be easier to guide students toward researching endangered species native to the Texas area, as it would be easier for them to get involved in solving the problem vs. species in Africa for example.

Prior learning

Students complete a KWL chart on endangered species to assess prior knowledge.

Connections: Transdisciplinary and past

Science: This unit is focused science based at its core with topics including life cycles, habitats and ecosystems.
Math: Students add up the number of their species left in different areas of the world.
Social Studies: Students use activist skills based on historical inspiration of those who helped powerless people in our history to inspire them to speak up for animals.
ELA: Students use reading and writing skills to create their presentation and flyer to inspire others to help their animal.

Learning goals and success criteria

Social Studies:
3.2C, 3.2A, 3.19B,
Science:
3.9, 3.9A, 3.9B, 3.9C, 3.10, 3.10A, 3.10B, 3.1B, 3.7C, 3.2B, 3.2C
ELA:
3.6A, 3.6B, 3.6C, 3.6D, 3.6E, 3.6F, 3.6G, 3.5A, 3,9C, 3.12B, 3.9Di, 3.9Dii, 3.10A, 3.10B, 3.10C, 3.10D, 3.10E, 3.10F, 3.10G
Math:
3.5, 3.5A, 3.5D, 3.5B, 3.5C
The science and social studies TEKS directly correlate to all of the lines of inquiry:

- Resources and how humans use these resources.
- How the use of resources by humans affects the natural world
- How organisms cope when their resources are inaccessible: Can they adapt? How or why not?

The students utilize the skills in the ELA TEKS to communicate their findings. The mathematics TEKS are utilitized to calculate and understand the reduction in numbers of their research topic.
Summative Assessment:
Each child will research an endngered species and produce a product that will:
a) develop a plan to raise awareness for its plight
b) offer suggestions to aid in its survival.
The students will explain the factors that have caused the imbalance between the natural and human worlds. Agency: The students will do this by making a visual project such as :
a) a short documentary film
b) a public service announcement
c) a show box diorama complete with a model of an animal. Students will present their project with their peers.

? Teacher questions

Lines of inquiry broken down into teacher questions:

- Resources and how humans use these resources.
  - What are renewable, nonrenewable, and inexhaustable resources?
  - What resources are scarce in the enviroment?
- How the use of resources by humans affects the natural world
  - How do we change the land and water enviroments to provide resources for human benefit?
  - What changes have caused populations of living things to become imperiled?
- How organisms cope when their resources are inaccessible: Can they adapt? How or why not?
  - What rules have been instituted and what activities have been created to protect animals and their ecosystems?
  - How do plants and animals adapt or respond to enviromental conditions?
  - How can you describe an animal's changes that occur during their life cycle?
  - Is it a complete or incomplete metamorphorsis?

? Student questions

Lines of inquiry broken down into studentquestions:

- Resources and how humans use these resources.
  - How many of my species are left?
  - What action can I take to help?
- How the use of resources by humans affects the natural world
  - Why are the animals endangered?
  - Why has this happened?
  - How can I stop it?
- How organisms cope when their resources are inaccessible: Can they adapt? How or why not?
  - Are there other animals similar to this species that are endangered?
  - Are there endangered species in America?
  - How do animals find food if we destroy their habitat?
  - What do animals do if they can't find food or shelter?
  - What rules and laws have people instituted that have benefited the enviroment?
  - What can I do to help these animals?

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:	Sharing the Planet: An inquiy into rights and responsibilities in the struggle to share finite resources with other people and with other living things: communities and the relationships within and between them: access to equal opportunities; peace and conflict resolution. Investigations demonstrate an ability to complete a basic investigation with simple analytical techniques, and with some partial conclusions of some relevance to study		
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Designing engaging learning experiences

What experiences will facilitate learning?

- This unit of inquiry is structured to provide experiences to facilitate learning at all levels. Through direct instruction, peer and small group conversations, independent research, students are offered multiple points of contact with the content. The lessons planned as a precursor to the research projects support knowledge and conceptual understandings. Students are then provided authentic opportunities to develop and demonstrate approaches to learning and attributes of the learner profile through their research. The project as outline, builds in flexibility to respond to students' interests, inquiries, evolving theories and actions.

Supporting student agency

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

- Students are active participants in their learning – Choosing their research topic and navigating their research within a given structure but given the autonomy to freely learn. The organized structure develops students' capacity to plan, reflect and assess, in order to self-regulate and self-adjust learning.

Teacher and student questions

Teacher questions

Lines of inquiry broken down into teacher questions:

- Resources and how humans use these resources.
  - What are renewable, nonrenewable, and inexhaustable resources?
  - What resources are scarce in the enviroment?
- How the use of resources by humans affects the natural world
  - How do we change the land and water enviroments to provide resources for human benefit?
  - What changes have caused populations of living things to become imperiled?

- How organisms cope when their resources are inaccessible: Can they adapt? How or why not?
    - What rules have been instituted and what activities have been created to protect animals and their ecosystems?
    - How do plants and animals adapt or respond to enviromental conditions?
    - How can you describe an animal's changes that occur during their life cycle?
    - Is it a complete or incomplete metamorphorsis?

Student questions

Lines of inquiry broken down into studentquestions:

- Resources and how humans use these resources.
    - How many of my species are left?
    - What action can I take to help?
- How the use of resources by humans affects the natural world
    - Why are the animals endangered?
    - Why has this happened?
    - How can I stop it?
- How organisms cope when their resources are inaccessible: Can they adapt? How or why not?
    - Are there other animals similar to this species that are endangered?
    - Are there endangered species in America?
    - How do animals find food if we destroy their habitat?
    - What do animals do if they can't find food or shelter?
    - What rules and laws have people instituted that have benefited the enviroment?
    - What can I do to help these animals?

Ongoing assessment

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

- Students will have a research form to enable tracking of their learning. They will have regular check-ins to share their progress and learning.

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

- As the students progress in their research, they will have summative and formative assessments of their learning. Including checkins and a final deliverable of their research.

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

- Planning, grouping and regrouping are based on the students' progression and individual needs.

Making flexible use of resources

How will resources add value and purpose to learning?

- To accommodate a hybrid learning model due to COVID-19, providing flexible resources was a unique challenge. Technology was a key in providing students with flexibility and creativity.

Student self-assessment and peer feedback

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

- As mentioned, regular check-ins, the research form, and small group conversations.

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

- Students have all these opportunities prior to their deliverable presenation. Along with a structured rubric, students are able to make adjustments as necessary.

Ongoing reflections for all teachers

For all teachers

- How are we responding to students' emerging questions, theories, inquiries and interests throughout the inquiry?
    - This unit of inquiry is structured to provide experiences to facilitate learning at all levels. Through direct instruction, peer and small group conversations, independent research, students are offered multiple points of contact with the content. The lessons planned as a precursor to the research projects support knowledge and conceptual understandings. Students are then provided authentic opportunities to develop and demonstrate approaches to learning and attributes of the learner profile through their research. The project as outline, builds in flexibility to respond to students' interests, inquiries, evolving theories and actions.

- How are we supporting opportunities for student-initiated action throughout the inquiry?
    - Students are active participants in their learning – Choosing their research topic and navigating their research within a given structure but given the autonomy to freely learn. The organized structure develops students' capacity to plan, reflect and assess, in order to self-regulate and self-adjust learning.

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?
    - This unit of inquiry is structured to provide experiences to facilitate learning at all levels. Through direct instruction, peer and small group conversations, independent research, students are offered multiple points of contact with the content. The lessons planned as a precursor to the research projects support knowledge and conceptual understandings. Students are then provided authentic opportunities to develop and demonstrate approaches to learning and attributes of the learner profile through their research. The project as outline, builds in flexibility to respond to students' interests, inquiries, evolving theories and actions.

- What opportunities are there for students to develop knowledge, conceptual understandings and skills to support the transfer of learning across, between and beyond subjects?
    - The science and social studies TEKS directly correlate to all of the lines of inquiry:
        - Resources and how humans use these resources.

        - How the use of resources by humans affects the natural world
        - How organisms cope when their resources are inaccessible: Can they adapt? How or why not?
    - The students utilize the skills in the ELA TEKS to communicate their findings. The mathematics TEKS are utilitized to calculate and understand the reduction in numbers of their research topic.

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

Transdisciplinary theme/Central idea:	Sharing the Planet: An inquiy into rights and responsibilities in the struggle to share finite resources with other people and with other living things: communities and the relationships within and between them: access to equal opportunities; peace and conflict resolution. Investigations demonstrate an ability to complete a basic investigation with simple analytical techniques, and with some partial conclusions of some relevance to study		
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Teacher reflections

- The thoughtful structure of the gradual release and allowing students to self-manage in an organized way provided the opportunity for students to navigate the central idea in a safe and purposeful way. The structure of the project truly supported students' development and demonstration of the attributes of the learner profile and approaches to learning. Students deliverables are available via their class padlet page of all of their projects are evidence of students' developing knowledge, conceptual understandings and skills to support the transfer of learning across, between and beyond subjects
    - The science and social studies TEKS directly correlate to all of the lines of inquiry:
        - Resources and how humans use these resources.
        - How the use of resources by humans affects the natural world
        - How organisms cope when their resources are inaccessible: Can they adapt? How or why not?
    - The students utilize the skills in the ELA TEKS to communicate their findings. The mathematics TEKS are utilitized to calculate and understand the reduction in numbers of their research topic.

Student reflections

- A variety of student inquiries arose that shaped each individual project. Adjustments were made on a case by case basis. This enabled the students to navigate their projects in ways that spoke to them and helped to develop a deeper connection to the content. his unit of inquiry is structured to provide experiences to facilitate learning at all levels. Through direct instruction, peer and small group conversations, independent research, students are offered multiple points of contact with the content. The lessons planned as a precursor to the research projects support knowledge and conceptual understandings. Students are then provided authentic opportunities to develop and demonstrate approaches to learning and attributes of the learner profile through their research. The project as outline, builds in flexibility to respond to students' interests, inquiries, evolving theories and actions.

Assessment reflections

- Providing the structure for the project and multiple points of feedback was extremely effective in managing expectations, informing of the learning process, and student self-management. As the students progress in their research, they will have summative and formative assessments of their learning. Including check-ins, their research form, and a final deliverable of their research. Students deliverables are available via their class padlet page of all of their projects.

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