

## Planning the inquiry

### 1. What is our purpose?

#### To inquire into the following:

- **Transdisciplinary theme: How the World Works**
- 
- **Central idea : Systems and methods facilitate cycles**

#### 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?

#### Formative assessments(s): Reading and Math week of the 8th, 18th

- **Reading: Informational Text Features (4.11 A,-,4.11 D, 4.19D)**
- **Math :Fractions and Data Representations (4.G,4.3A-4.3G, 4.9 A-4.9B)**

#### Summative: Reading and Math week of January 16th

#### Interdisciplinary Assessment week of January 9th-12th

- **Reading/Science-Research Project with rubric (Students choose a natural resource, research on how it contributes to the way the world works, Students choose diorama, poster, powerpoint or visual product and present) 4.7 C, 4.9 B**

Class/grade: 4th

Age group: **9-10**

School: **Briscoe Elementary**

School code: **112**

Title: How the World Works

Teacher(s):Blum, Ehlke, Fiscal, Alvarado, Ortiz

Date:November 27th - January19th

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?

**Key Concept: Change and Responsibility**

**Transdisciplinary Skills: Research, Communication**

**Learner Profiles: Inquiry, Communicators, Knowledgeable**

**Attitudes: Commitment, Creativity, Confidence**

What lines of inquiry will define the scope of the inquiry into the central idea?

**An Inquiry into the interaction between the natural world and human societies.**

What teacher questions/provocations will drive these inquiries?

CHANGE

Science:

**Explain and provide examples on how renewable and nonrenewable resources the same and different?**

**Explain how changes in natural resources impact the natural**



- **Reading: Informational Text Features (4.11 A,-,4.11 D, 4.19D)**
- **Math :Fractions and Data Representations (4.G,4.3A-4.3G, 4.9 A-4.9B)**

world?

**Reading:**

**Explain how reading can make a person more knowledgeable and provide enhanced skills to function in society.**

**Explain how changes to text structures help the reader understand the text.**

**Math:**

**Describe why changes in the data collects reflects a change in data presentation.**

**Social Studies:**

**Describe the impact of the civil war and how it changed society today.**

**RESPONSIBILITY**

**Science**

**Analyze the effect of an animal being removed from the food chain.**

**Social Studies:**

**Recognize the responsibility government has on society?**

### 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?

#### L1 Change

- Think-pair-share: ability to communicate and explain topic
- Think-Ink-Share: ability to write and communicate the topic
- Graffiti Write: Give a visual representation of topic

#### L2 Responsibility

- I see, I think, I wonder: prior knowledge, ability to communicate and explain topic
- KWL: prior knowledge, ability to write and communicate the topic
- Shake and Share: ability to communicate and explain topic

What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?

**Formative and Summative assessments and Project-Based assessments.**

**Understanding, explain, and apply objectives in future learning.**

### 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?**

#### Science:

- Natural resources and alternatives energy PPT & notes (DOK 1) [Change: reflective
- Natural resources vs. Man Made poster review (DOK 1) Responsibility: inquirers
- Natural resources stations (DOK 2) Responsibility: thinkers
- Natural resource foldable (DOK 2) Responsibility: reflective-
- Natural resources-Weekly Five Stations (DOK 2) Responsibility: thinkers
- Ecosystems PPT and notes (DOK 1) (Connections: Inquirers
- Food webs & energy flow in ecosystems activities/labs (DOK 2) perspective: reflective

#### Reading:

- Informational and Expository Passage & STAAR Formatted Questions (DOK 2) [Change & Responsibility - Inquirer]
- Reading Passage Gallery Walk (DOK 2) [Change & Responsibility - Thinker]
- I See, Think, Wonder with pictures - determining main idea & story summary (DOK 2) [Change & Responsibility - Thinker]
- Graphic Organizer utilizing informational text (DOK 2) [Responsibility - Knowledgeable
- Bag It (Scholastic.com) DOK 3 (Thinker, Inquirer)
- Sticky Note Questions (Scholastic.com) DOK 3 (Inquirer, Thinker)

#### Math:

- Folding fraction ruler-Fold sentence strip or construction paper and mark with fractions (DOK 2) (Knowledgeable, Thinkers)
- Fraction Chain (groups--ordering fractions) DOK 2 (Communicators, Knowledgeable, Thinkers)
- Who am I Puzzles (fraction models/ comparing fractions) DOK 2 (Thinkers)
- Stacking Fractions (MM TE pg 122 Activity #1) DOK 1; Groups create different fractions with same activity and compare fractions to other groups DOK 2;

#### Social Studies:

- Cartoon strip - Unit 08 PA 02 (DOK 3) [Inquirer, reflective, thinker) involvement of TX in the Civil War and Reconstruction

- Timeline - Unit 07 PA 02 About the early leader of the Republic of Texas DOK 3 (knowledgeable, thinker, communicator)

**Writing:** Essay - DOK 3 (open-minded, risk takers, thinkers) use student baseline essay to focus on the following areas...

- Intro "Hook"
- Intro transition words/phrases
- Thesis Statements
- Conclusions

Revise and Edit - utilize revise and edit passages/questions from motivation writing/escribir como estrellas. DOK 2 (thinkers, reflective, communicators)

**What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?**

- **Research - natural resources: brainstorming, model using Library Media Services**
  - **Inquiry - gathering information and facts**
  - **Knowledgeable-understand and apply information collected through research**
- **Communication - partner presentations & feedback, self reflection, what message does the project communicate to audience**
  - **Communicator-communicating research findings through mini presentations and group presentations.**
  - **Reflective- use peer and teacher feedback to adjust presentation**
  - **Inquirer**

**5. What resources need to be gathered?**

What people, places, audio-visual materials, related literature, music, art, computer software, etc, will be available?

Textbooks: Go Math, Social Studies “My World”, Science, Journeys, Mentoring Minds (Writing, Reading, Math), Journeys Write Source, Write Source

Library Media Services: Learn 360, Pebble Go, Nearpod, Bibliotech, San Antonio Public library

**How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?**

Classroom: IB Bulletin Board and inquiry based activities (Summative research project (See Box 1 above Reading/Science)

Community: Accountable talk with family/community members about their motivations for various aspects of their lives

## 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.

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.

Ortiz: more time for the research portion of the assessment component. With the weeks short after the holidays, class time and materials were limited for them to finish resulting in part of the project assigned over a weekend.

Alvarado: i would like to have more research related assessment tasks, the students enjoy them

What was the evidence that connections were made between the central idea and the transdisciplinary theme?

Ortiz: Through discussions and products, students were able to demonstrate the connections.

Alvarado: students were able to connect the transdisciplinary theme and central idea to different learning experiences

## 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.

Ortiz: It was more difficult to include all subjects because it was hard to make the connection with math, finding enough books/articles for reading and social studies. Part may be due to a disconnect on my part on how all of it fits together. Students understand the attributes of the learner profile and attitudes, they were able to utilize and demonstrate their research skills.

Alvarado: I have started to take the time to explicitly explain to the students how the theme and central idea have connections to the different learning experiences and then, we go back and visit the theme and central idea to check if our learning experience fits with them.

**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.

**Ortiz:** students wanted to find out how the natural resources here in Texas compares to other parts of the country/world.

**Alvarado:** Students were curious about how to access natural resources and how to learn more to preserve our nonrenewable resources. They also like to find different learner attributes that fit in with what we were learning.

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.

**Ortiz:** there was insufficient time following the research project on natural resources before the end of the unit.

**Alvarado:** Students discussed alternative forms of energy and proposed different ways to use the alternative forms of energy we currently use.

**9. Teacher notes**

**Alvarado:** could have used that extra week for this planner, but for time’s sake, we had to cut it short.

**Transdisciplinary Theme: How the World Works**

**November 27, 2017 to January 19, 2018**

**Writing Stand Alone TEK**

**Weeks 1-6 4.18A**