

Inquiry Project Design Plan

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| Teacher/Designer Names: Vincent Keane & Tyiesha Bryant | |
| Name of Project: Millions of years in the making | Grade Level: 9/10 |
| Est Launch Date: 10/10/22 | Est Duration (in weeks): 6 |
| Disciplines Involved: Social Studies, Earth Science, Math(pending) | |
| Problem Statement: Did Volcanoes, Earthquakes, and Glaciers help create Civilization? | |

STAGE 1: DESIRED RESULTS

Big Idea: Cause and Effect

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| <p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● Geological and Geographic features determine how humans interact, progress, and survive. ● Natural Occurrences like glacier movement help to form geographical settings. ● Historically natural disasters may have been a benefit in enhancing the quality of human survival in early civilizations. ● Humans must interact with, and adapt to, their environment and each region has a unique way of adapting to, and exploiting, their environment. | <p>Essential Question(s): <small>(MEANT TO BE SHARED WITH STUDENTS)</small></p> <ul style="list-style-type: none"> ○ How do Geographical features shape human interaction and historical events? ○ How have different natural occurrences help to develop civilizations? <p>● How did Volcanoes, Earthquakes, and Glaciers help create Civilization?</p> |
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Established Goals (Standards, Performance Indicators, Learning Goals):
*choose relevant standards to unit/project plan timing and learning goals; do not need to use all disciplines below.
 ** unpack into SWK and SWBAT under identified standards as this will lead to aligned assessment design

Science Standards:
NGSS Standards:
 * New
 1-ESS2B Plate tectonic and Large Scale systems.
 2- ESS2C- The Role of water in Earth’s Surface processes.
 3- ESS3A- Natural Resources.
 4- ESS3C- Human Impact on Earth System.
 *Old

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1- *ESS-10 examine and interpret ongoing changes of the Earth system (e.g., earthquakes, mountain building)*
2- *ESS3.Q Natural Resources*
Resource availability has guided the development of human society.

Social Studies Standards:

9.1 b Complex societies and civilizations adapted to and modified their environment to meet the needs of their population.

Students will explore how the Mesopotamian, Shang, and Indus River valley civilizations adapted to and modified their environments to meet their need for food, clothing, and shelter.

10.3 a Agricultural innovations and technologies enabled people to alter their environment, allowing them to increase and support farming on a large scale.

Students will examine the agricultural revolution in Great Britain.

Mathematics Standards:

NA

ELA Standards:

RH4: Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, economic, or geographic aspects of history/social studies.

Technology Standards:

NYS Computer Science:

9-12.DL.4 Independently select advanced digital tools and resources to create, revise, and publish complex digital artifacts or collection of artifacts.

ISTE:

NA

Social Justice Standards:

ID.9-12.5 Students will recognize traits of the dominant culture, their home culture and other cultures and understand how they negotiate their own identity in multiple spaces.

DI.9-12.7 Students will develop language and knowledge to accurately and respectfully describe how people (including themselves) are both similar to and different from each other and others in their identity groups.

Other (Art, SEL, etc):

NA

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| Links to Standards/Reference Frameworks: NGSS , NGSS by DCI , Nat'l C3 SS Framework , NYS K-8 SS Standards , Common Core , ISTE , Learning for Justice Social Justice Standards , CASEL SEL Framework , NYS CS and Digital Fluency | |
| Students will know (SWK): | Students will be able to do (SWBAT): |
| RH4: What it means to determine something That each word/phrase has a meaning Content-Specific vocabulary SS9.1.b: Complex societies and civilizations adapted to and modified their environment to meet the needs of their population. How the Mesopotamian, Shang, and Indus River valley civilizations adapted to and modified their environments to meet their need for food, clothing, and shelter. | RH4: Identify in a text Reflect on the meaning of words/phrases Use sources to determine the meaning Identify the difference between words and phrases Determine the meaning of words/phrases SS9.1.b: Explore various river valley civilizations Examine how River valley civilizations adapted to and modified their environments to meet their need for food, clothing, and shelter. |

STAGE 2: EVIDENCE & ASSESSMENTS:

Performance Task Narrative:

Goal: Students will be able to understand how geological formations formed and how these formations helped create civilization.

Role: Students will lead in discovering how geological formations have occurred through inquiry, experimentation, and creating models of these formations.

Audience: Peers

Situation: Students will be exposed to a plethora of geological formations and engage in learning about how they are formed. Students will then investigate how these formations have/could have led to civilization. Students can test these hypothesis through modeling and mapping their hypothesis.

Product(s): *Clarify what the students will create and why they will create it.*

- 3D printed topography
- Presentation of how the topography they created would help “sprout” a civilization.

Standards (criteria for success): *Provide students with a clear picture of success. Identify*

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specific standards for success.

- Students will employ Scientific Method to test hypothesis
- Students will compile a list of criteria for what is needed to “create” a civilization
- Students will create a topographical model that will “showcase” their hypothesis

Other Evidence/Assessments:

STAGE 3: THE LEARNING PLAN:

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Learning Activities

(potential layout below. Can be daily, divided by periods, or even using the Engineering Design Process to divide into stages such as Ask, Imagine, Plan, Create, Improve)

Week 1

Learning Goals:

What it means to determine something
That each word/phrase has a meaning
Content-Specific vocabulary

Learning Events:

Students will identify the words and phrases in the text that are vital to understanding how humans adapted to their environment and how they exploit the resources and geographical features of their environment.
Students will use various sources to determine the meaning of these words and phrases.

Formative Assessments: While students are working on the section of their presentation regarding their selected geographical area/culture they will be asked to use the words and phrases identified above in their presentation. Students will be asked to share this portion of their presentation narrative which showcases the vocabulary and phrases referenced above.

Notes/Resources: