**BRAIN-TARGETED TEACHING**

**LEARNING UNIT**

**Name: Allyson Eno Dates (Allocated Time): 5-6 weeks**

**Unit Topic:/Title: Where We Are in Place and Time Grade Level: First**

**Content Standard(s):**

Teaching within the Primary Years Program we don’t have “content standards” but concepts and skills we are trying to teach through the lines of the lines of inquiry.

**Our central idea for this unit is:**

The Earth is made up of landforms that change over time

**Lines of inquiry:**

The evolution of planet Earth

The types of landforms and their location on Earth

Causes for change in landforms

**Concepts-** causation and change

**Skills-** Research Skills- gathering information, organizing information and presenting information

**Learning Unit Overview:**

***Brain Target #1***

**Emotional Connection:**

**1.** Keep routine and structure in place as we move around Kath Murdoch’s inquiry cycle.

2. As we unpack the central idea and figure out what a landform truly is, encourage the children to choose the landforms that we will inquire into to give them a sense of ownership.

3. As we move throughout the unit, celebrate the successes the students have in regards to their research skills, independence and knowledge acquisition. Move their names to the appropriate rocket ship or star- that go with our success board.

4. Recognize and plot on a Google map the landforms from all of the students’ home countries.

***Brain Target #2***

**Physical Environment:**

**1**. I see, I think, I wonder (novelty)- as we move throughout the unit and as an introduction to each new landform, a thought provoking picture of a landform is put on our I see, I think, I wonder bulletin board. The students participate in this thinking exercise and generate questions and wonderings about the landform.

2. Music, Relaxation

At transition times, throughout the school day, students will watch the Piano Guys videos, which include a variety of landforms with different levels of erosion. Students will “meditate” and use breathing techniques to ready themselves for learning activities.

***Brain Target #3***

**Concept Map / Advanced Organizer
(feel free to use an online tool):**

**See last page for an advanced organizer**

**Learning Goals:**

**By the end of the unit:**

Students will gather information from Internet and non-fiction texts.

Students will organize information gathered from non-fiction sources.

Students will present information they’ve gathered.

Students will describe the causes of change in landforms over time.

Students will identify different types of landforms.

**Introductory “Big Picture” Activity/Assessment of Prior Knowledge**

Students participate in a “free write” exploration with the prompt “What do you know about landforms”. This allows the teachers to see what students already know about the topic and guide our subsequent planning and implementation of the unit.

***Brain Target #4***

**Activities for Teaching Mastery of Declarative/Procedural Knowledge**

**Learning Objective: Students will identify different types of landforms.**

Activities:

1. Sing Landforms song to start every Unit of Inquiry session.

2. Think-Pair-Share about the landforms from their home countries.

3. Add these landforms onto our Landform Google map and discuss their locations on the 7 continents.

4. Sing 7 continents song as reminder of location and names.

5. Watch BrainPop and BrainPopjr videos about landforms, Pangaea and changes in the earth.

**Learning Objective: Students will gather information from non-fiction sources.**

Activities:

**Guided inquiry** into Deserts, one of the student chosen landforms.

1. Read non-fiction texts, while recalling non-fiction text features and their uses.

2. Create an anchor chart for our facts about deserts.

**Guided Inquiry** in Coasts, the second landform the students chose.

1. Read non-fiction texts, using their features to find specific information

2. Create an anchor chart for information on coasts.

3. Watch time-lapse photography of coastal erosion.

**Independent Inquiry:**

1. Students select their own landform to research

2. Students gather information from a variety of sources.

**Learning Objective: Students will organize information gathered from non-fiction sources.**

Activity:

**Guided Inquiries:**

After gathering information, students will graphic organizers to organize the information.

**Independent Inquiry:**

After gathering their information on a landform of their choosing, students will complete the graphic organizer to help organize their thoughts and facts before presenting and writing their book.

**Mind Map**- after gathering information students will add their new understandings to their mind maps.

***Brain Target #5***

**Activities for Extension and Application of Knowledge**

**Students will present information they’ve gathered.**

1. Students will use the Animation-ish program to create animations of their landforms changing over time.

2. Students will add pages to their summative assessment non-fiction book to describe their landforms and how and why it changes over time.

**Students will describe the causes of change in landforms over time.**

**Costal Erosion Experiment:**

Students use a tray that has hard packed sand on one half and water in the other half. They simulate waves and observe what happens to the “coast” over time.

**Canyon Erosion Experiment:**

Using a pan with hard packed sand, students use a stream of water to simulate a river carving out a canyon.

**Sand Dunes/Desert Expansion Experiment:**

Using a hair dryer and a straw, students simulate strong and soft winds and observe how loose sand acts in a desert type environment.

***Brain Target #6***

**Evaluating Learning**

**Writing Non-Fiction Books**

Throughout the unit, students add to their summative assessment. They use their organizers to help present the information they have learned. Students focused on the characteristics of each landform, how the landform changes over time and what causes these changes.

**BTT-3**