**Backwards Design Project**

**Name of lesson/unit: Plate tectonics**

**Grade Level: 6th**

**Subject Area: Science**

**Stage 1:**

**Content standards:**

* **MS-ESS2-3**
* **MS-ESS2-2**
* **RST.6-8.1**
* **RST.6-8-7**
* **RST.6-8.9**
* **WHST.6-8.2**
* **SL.8.5**
* **6.EE.B.6**
* **7.EE.B.4**

**Understanding(s):**

Students will understand that…….

1. Students will understand the Theory of Plate Tectonics.
2. Understand that the Earth’s crust is constantly being changed.
3. Understand the processes of plate movements.

**Essential Question: How does the Earth’s surface move and change over time?**

**Stage 2: Acceptable Evidence**

**Performance Task(s)**

How do the students prove they understand the concept?

1. Students will use or create a model to prove how the continents have changed location over time.
2. Write an informational/research essay explaining the Theory of Plate Tectonics.
3. Create a timeline explaining how the Earth has changed over time.
4. Create a presentation (power point) that explains how much the plates have moved over time using exact equations and numerical data.

Other Evidence and Formative Assessment works:

1. Students will calculate how much the plates will move over the next million years using the equations they have learned in class.
2. Students will write a formal essay explaining the Theory of Plate Tectonics. Students will use specific vocabulary within their essay.
3. Students will create a list of possible test questions (true/false, multiple choice, essay) and include the correct answers. The teacher will then create an assessment from the students’ questions for the students to complete at a later date.

**Rubric:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Exceeds  3pts | Meets  2pts | Needs Improvement 4-1pt |
| 1. Students will understand the Theory of Plate Tectonics. |  |  |  |
| 1. Understand that the Earth’s crust is constantly being changed. |  |  |  |
| 1. Understand the processes of plate movements. |  |  |  |

**Stage 3: Learning Plan**

**Learning Activities:**

1. Graham Cracker plate boundaries activity
2. Using clay to demonstrate plate movements
3. Creating note cards of unit vocabulary
4. Cut out map pieces to demonstrate how the plates have moved.
5. Create a unit outline

**Lesson Contributors: Names and schools**

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