Lesson Plans

Jeannine Edwards
Monday,January 16, 2023 MLK DAY! No School

Tuesday, January 16, 2023

Competency: Earth and Space Science
Standard: E.8.9.1 Investigate and explain how the flow of Earth's internal energy drives the cycling of matter through convection currents between Earth's surface and the deep interior causing plate movements E.8.9.2 Explore and debate theories of plate tectonics to form conclusions about past and current movements of rocks at Earth's surface throughout history. E.8.9.3 Map land and water patterns from various time periods and use rocks and fossils to report evidence of how Earth's plates have moved great distances, collided, and spread apart E.8.9.4 Research and assess the credibility of scientific ideas to debate and discuss how Earth's constructive and destructive processes have changed Earth's surface at varying time and spatial scales

Student Objective:TSW model the mechanisms of plate tectonics.

Essential Question: How is matter cycled due to convection currents in the mantle?

Focus Questions: How does the model of a boundary show the relationship between the parts of the system?

Bellringer: (5 min)MAAp practice questions

Anticipatory Set:(5 min) TTW pass out lab supplies and lab sheets. She will read directions carefully. She will then set a timer for them to complete the activity.

Teacher Input:(36 min) TTW monitor students as they use marshmallow fluff and graham crackers to create models of the three different boundaries. The fluff represents the magma in the mantle. The graham cracker represents the lithosphere. TTW assist students as needed as they work in groups of 3 - 4 to complete the activity, and respond to questions. When the timer goes off,

Modeling: TTW model appropriate use of lab supplies.

Guided Practice:TTW correct any misunderstandings and misconceptions through discussion.

Remediation: Bell Work will be remediation.

Standards for Remediation: L.8.4.A.2

Differentiation: TTW allow T25 students to work more independently. TTW assist B25 students by working as a class to complete each model. TSW still create models, but she will stay at the same pace, asking questions after each model is created. Bubble students will work independently, but TTW assist more as needed.

Independent Practice: TSW work independently on today's test.

Closure/Assessment: (2 min) TSW respond to the essential question.

Duration: One Class Period

Jeannine Edwards
Wednesday ,January 18, 2023

Competency: Earth and Space Science
Standard: E.8.9.2 Explore and debate theories of plate tectonics to form conclusions about past and current movements of rocks at Earth's surface throughout history.

Student Objective: TSW explore the history of plate tectonic theory by reading a text and debating the roles of evidence, technology, and various fields of science and engineering in developing the theory of plate tectonics.

Essential Question: How have Earth's plates moved great distances, collided, and spread apart over a period of time?

Focus Questions: How was the current surface of Earth used to draw conclusions about the appearance of the past surface of Earth?

Bellringer: (5 min) MAAP practice questions on google classroom.

Anticipatory Set: (10 min)TTW ask will lead a musical topic rotation. TSW will be randomly placed with 2 -3 other students, and they will rotate through a gallery of questions. TSW have 2 minutes to respond to each question..

Questions to respond to: A.What is scientific theory? B. How do scientific theories become accepted? c. Is the development of a scientific theory the work of scientists in only one branch of science? D. What is the mechanism that moves tectonic plates? E. What are plate tectonics? F. Illustrate the different boundaries

Teacher Input: (30 min)TTW pass out student journals with tasks on them. TTW inform students that they will work as individuals to complete the first portion of the task, and then come together to debate their findings with a partner. TTW Instruct students to do the following:1. Read the article "The History of Plate Tectonic Theory.2. Answer the questions in your Student Journal.3. Discuss and debate your findings with your partner.4. Record your observations and findings from the debate in your Student Journal.

Modeling:TTW discuss scientific theory and what is required for theory to be accepted.

Guided Practice:. TTW correct any misunderstandings and misconceptions through discussion.

Remediation/Enrichment: Bell work will be remediation

Standards for Remediation: E.8.9.1 Investigate and explain how the flow of Earth's internal energy drives the cycling of matter through convection currents between Earth's surface and the deep interior causing plate movements

Differentiation: For the top 25 students, the teacher will allow more time for debate and discussion. For the bottom 25 students, TTW allow more time for discussion of evidence and reasoning.

Independent Practice: TSW work independently and with a partner.

Closure/Assessment: (5 min) TSW respond to an exit ticket based on today's lesson

Duration: Once Class Period

Jeannine Edwards
Thursday, January 19, 2023

Competency: Earth and Space Science
Standard: E.8.9.2 Explore and debate theories of plate tectonics to form conclusions about past and current movements of rocks at Earth's surface throughout history.

Student Objective: TSW learn land features associated with plate tectonics, and seafloor spreading in particular.

Essential Question: How have Earth's plates moved great distances, collided, and spread apart over a period of time?

Focus Questions: How do plate tectonics relate to the formation of different features on Earth's crust?

Bellringer: (5 min) MAAP practice questions on google classroom.

Anticipatory Set: (5 min) TTW show images of places on earth, and have students TPS how they may have formed.

Teacher Input: (37 min)TTW inform students that they will complete a center rotation and introduce: Center 1: Read it! Students will read an article about plate tectonics and respond to questions. Center2: Watch it! Students will watch an edpuzzle in which they learn how various landmassses are formed Center 3: Explore it! Students will use a model of the mid atlantic ridge to explore why the sea floor is spreading. Center 4: Organize it! Students will complete a color by number activity in which they must identify the correct description for key terms.

Modeling: TTW model appropriate behavior for the centers.

Guided Practice:TTW correct any misunderstandings and misconceptions through discussion.

Remediation/Enrichment: Bell work will be remediation for standards not mastered. Bell work question will be based on this. Enrichment:

Standards for Remediation: E.8.9.1 Investigate and explain how the flow of Earth's internal energy drives the cycling of matter through convection currents between Earth's surface and the deep interior causing plate movements

Differentiation: For the top 25 students, the teacher will not assist students as they complete the activity. For the bottom 25 students, TTW give the students clues and remind students of what evidence of plate movement we have discussed thus far to help them put the puzzle together.

Independent Practice: TSW work as a whole group in discussion, and independently on quizizz throughout the nearpod.

Closure/Assessment: (3 min) TSW complete a quizzizz game. TTW be able to assess which topics the students understood, and which they did not.

Duration: One Class Period

Jeannine Edwards
Friday, January 20, 2023

Competency: Earth and Space Science
Standard: E.8.9.2 Explore and debate theories of plate tectonics to form conclusions about past and current movements of rocks at Earth's surface throughout history. E.8.9.3 Map land and water patterns from various time periods and use rocks and fossils to report evidence of how Earth's plates have moved great distances, collided, and spread apart

Student Objective:TSW explore theories of plate tectonics.

Essential Question: How has Earth's surface changed over time?

Focus Questions: 1. What is seafloor spreading?2. What evidence is there that plates have moved great distances, collided, and spread apart?

Bellringer: (5 min)MAAP Practice Questions

Anticipatory Set:(5 min) TTW lead a game of quizlet live.

Teacher Input:(30 min)TTW introduce the rotation stations. At each location, students will identify what is causing the landmass to form or break apart. Once finished, the teacher will lead a kahoot to check all answers.

Modeling: TTW discuss pertinent vocabulary with the students.

Guided Practice:TTW correct any misunderstandings and misconceptions through discussion.

Remediation/Enrichment: Bell work will be remediation for standards not mastered. Bell work question will be based on this.

Standards for Remediation: E.8.9.1 Investigate and explain how the flow of Earth's internal energy drives the cycling of matter through convection currents between Earth's surface and the deep interior causing plate movements

Differentiation: For the Top 25 students, TTW discuss deeper concepts of how landmasses have been shaped over time. For the bottom 25 students, TTW focus on vocabulary words and recall of definitions.

Independent Practice: TSW take part in whole group discussion, but respond to open ended questions/activities independently.

Closure/Assessment: (3 min)TSW fill out an exit ticket.

Duration: One Class Period