Dramatic Landforms

Third Grade

Adapted by M. Goldman

CORE SUBJECT AREA

Science

ART FORM + ELEMENTS

Drama

MSCCR STANDARDS

E.3.7B.2 Develop and use models to describe the characteristics of Earth's continental landforms and classify landforms as volcanoes, mountains, valleys, canyons, planes, and islands.

MSCCR CREATIVE ARTS STANDARDS

TH:Pr.6.1.3 Convey meaning through the presentation of artistic work.

a. Practice drama /theatre work and share reflections individually and in small groups.

DURATION

30-45 minutes

*If using The Actor's Toolbox for the first time then allow for more time to introduce prior to this lesson. Use the Actor's Toolbox video in materials section.

OBJECTIVES

TSW describe landforms and identify landforms

TSW speak clearly and use an appropriate volume.

TSW read the text accurately.

TSW read the text with expression.

TSW cooperate with other members of the group during rehearsal time.

MATERIALS NEEDED

Copy of the script for each student (attached in artifacts).

The Actor's Toolbox https://educationcloset.com/2013/05/31/actors-toolbox-script/

VOCABULARY-

Landforms: Earthquakes, Volcanoes, and Tsunamis

Faults, landslides, magma, mudslide, plates, Richter scale,

The Actor's Toolbox

Body

Voice

Imagination

Concentration

Cooperation

LESSON SEQUENCE

1. Divide students into groups. (Your class size will come into play here. There are 9 speaking roles and "all") Reader's Theater script is below in sources. Print so that each student will have a copy.
2. Assign parts to each student in the group.
3. Students practice reading their parts independently.
4. Students rehearse as a group.
5. Each group performs the Reader's Theater.

EXTENDED LEARNING ACTIVITIES

The students could brainstorm possible costumes if it were to be presented as a play.

The students could also brainstorm props and stage settings if it were performed as a play.

This could be a center activity.

Students could perform for other classrooms or administration.

TIP:

Place each student script in a clear plastic page protector which will protect paper so you can use it multiple times and makes it easy to organize scripts in a notebook for storage. OR place student scripts in a folder for easy access.

SOURCES

www.readinga-z.com

https://educationcloset.com/2013/05/31/actors-toolbox-script/

https://www.readinga-z.com/site_and_dist/nonbooks/readers_theater_script/rt_g3eu_g4u_earthquakes_volcanoes.pdf

Reader's Theater for Dramatic Landforms:

(Used from www.readinga-z.com)

Cast of Characters:

Scientist 1

Scientist 2

Scientist 3

Scientist 4

Narrator 1

Narrator 2

Lab Tech 1

Lab Tech 2

Lab Tech 3

ALL

Narrator 1: We usually think of the ground and the ocean as stable and peaceful things. The ground lies quietly beneath our feet, and the ocean laps gently against the shore. But forces deep within the planet can violently explode in only a moment.

All: Rumble!

Narrator 2: Forces within the planet cause violent shakings called earthquakes; explosions of ash, gases, and hot rocks called volcanoes; and huge ocean waves called tsunamis. Let's listen as scientists and lab techs describe these amazing events and the violent forces that cause them.

Scientist 1: Our planet changes constantly. The top layer of Earth is made of giant pieces of rock, like the pieces of a puzzle. The pieces of rock are called plates, and they make up continents and ocean floors.

Scientist 2: Where the edges of the plates come together, there are often cracks and gaps. These cracks and gaps are called faults.

Scientist 3: Underneath the plates, the earth is extremely hot. It is so hot that rock melts into a liquid called magma. The plates float on top of this liquid magma, which is always moving.

Scientist 4: As the magma moves, it drags the plates around with it. Three distinct things can happen at the edges of moving plates. Plates that move against each other can slide over or under another plate. Plates that move past each other can grind edges. Plates that are moving apart can make a gap where magma seeps out.

Lab Tech 1: Plates usually move very slowly. Sometimes the plates get caught on each other, but they keep trying to move. Pressure and energy build up. Suddenly…

All: Pop! Crack! Boom!

Lab Tech 2: The plates give way. As the plates jerk forward, the ground trembles and shakes, and far above, on Earth's surface, people

feel an earthquake. Some earthquakes are small, and some are much larger and more frightening.

All: How can you tell the difference?

Lab Tech 3: Small earthquakes cause the ground to shake just a little, causing hanging objects to swing and tree branches to sway much as in a gentle breeze. Big earthquakes cause the ground to shake so hard buildings crumble, bridges collapse, and large cracks open up in the ground.

Scientist 1: Earthquakes can be measured. We use an instrument called a seismograph to measure an earthquake. The quake is given a number from the Richter scale.

Scientist 2: People can't feel an earthquake that measures 1.0, and usually can't feel a quake that measures 2.0, but people can feel a quake that is 3.0.

All: Is there damage?

Scientist 3: No, but some weak buildings might be damaged in a 4.0 quake, which people definitely feel near the origin of the earthquake.

Scientist 4: At 5.0 and 6.0 a quake can be felt over a wider area and cause lots of damage to weak buildings and some damage to strong buildings. This kind of earthquake can be scary.

All: Really scary!

Lab Tech 1: A 7.0 earthquake is major. Most buildings at the center are destroyed. Cracks form under the earth. Underground pipes break. Landslides can occur.

Lab Tech 2: An 8.0 earthquake is even worse. Buildings and bridges are destroyed. Large cracks appear on the ground. Large landslides occur, too.

Lab Tech 3: At 9.0 the ground appears to move in waves. Entire rivers can move. Objects can be thrown into the air. Buildings and other structures are totally destroyed.

All: Amazing. What else can you tell us about?

Narrator 1: Let's turn our attention to another violence force—volcanic eruptions. A volcano occurs when magma from deep inside the earth comes out through a crack in the surface. Volcanoes usually happen near edges of the plates, where there are many cracks and thin spots.

Scientist 1: Magma leaks out of the cracks and thin spots. It pours onto the land, hardens, and often forms a mountain or island.

Scientist 2: Other times magma cools before it gets to the surface. It hardens into a piece of rock that plugs up the crack where it has been seeping out.

Scientist 3: The magma continues to push upward against the hardened rock plug. Hot gases increase and the pressure builds. Huge chunks of rock burst from the volcano.

All: Kaboom!

Lab Tech 1: Mountainsides can be ripped away when a volcano erupts. Hot gas, ash, and melted rock shoot into the sky, and tons of rocks roll down the mountainside. These walls of falling rocks, called landslides, can bury whole cities and blocks nearby rivers from flowing, causing floods.

All: What else happens?

Scientist 4: Clouds of ash and dust rise into the air during volcanic eruptions. The ash falls to the ground like a huge snowfall. The heavy ash could cause roofs of houses to collapse. An ash cloud can actually spread all around the world.

All: Incredible!

Lab Tech 2: Large ash clouds can even block out sunlight, and the temperature of the entire Earth can cool down after an eruption. The explosion can be so great that it knocks down entire forests. Destructive fires can start.

Lab Tech 3: Some gigantic volcanoes have snow and ice on top. Hot gases from the eruption melt all the snow and ice, causing water to rush down the mountainside. This large dirt-filled flood is called a mudslide, which is really just a liquid landslide.

Scientist 1: We can't always predict an earthquake, but we can predict volcanic eruptions. People can find safety. Lives can be saved.

All: Is there more?

Narrator 2: The final violent force the scientists will describe today is a tsunami. Tsunamis are huge waves that can be caused by earthquakes or volcanoes and are the biggest waves in the world.

All: Tell us how big!

Narrator 2: Tsunamis can be as high as a football field is long.

Let's find out from the scientists and lab technicians what causes these monster waves.

Scientist 3: The edges of the plates, where earthquakes and volcanoes occur, are often near oceans. The shaking of an earthquake or the explosion of a volcano can cause landslides to fall into the sea and make huge waves.

Scientist 1: Earthquakes can occur underwater. They can cause the sea floor to move violently.

Scientist 2: Volcanoes can occur under the sea, too. They cause explosions underwater.

Scientist 4: All of these forces- landslides, a shaking sea floor, and underwater eruptions- cause tsunamis.

Lab Tech 1: Tsunamis speed outward, moving away from their source in all directions. A tsunami can cross an entire ocean at two hundred miles an hour.

All: That's really fast!

Lab Tech 2: Tsunamis may not appear high above the surface of the water, but they are very deep. As tsunamis approach land, they move

into shallow water, and the ocean floor pushes the wave upward. The wave slows. The ocean floor lifts the wave.

All: …. Higher and higher.

Lab Tech 2: When a tsunami reaches land, it can destroy almost anything in its path.

Lab Tech 3: The tallest tsunami on record hit Alaska's coast and was as big as the world's tallest building. Most tsunamis are not that big when they hit land. Often, tsunamis are between one and ten stories tall.

All: That's still tall!

Scientist 1: Sometimes we have time to warn people when a tsunami is on its way.

Scientist 3: We might have a few minutes or a few hours, so lives can be saved although houses might be lost.

Scientist 2: We like our quiet planet, but we know that it can turn violent.

Scientist 4: We will keep learning more about earthquakes, volcanoes, and tsunamis. It is our job, and we want to keep people safe.

All: We are glad you are scientists.