

UNIT: EARTH'S CHANGING SURFACE EXPLORING LANDFORMS THROUGH TEXTURE AND COLLAGE

(Lesson 3 of 5) Grade Band: 5, 6

Content Focus: Visual Arts & Science



LEARNING DESCRIPTION

Students will demonstrate their understanding of the constructive and destructive forces that create landforms by using additive and subtractive techniques in collage art. Students will incorporate the element of texture to demonstrate how these forces impact the surface of landforms.

LEARNING TARGETS

Essential Questions	"I Can" Statements
	I can explain how constructive and destructive forces change and shape Earth's surface.
	I can create a collage to demonstrate the effects of constructive or destructive processes.



GEORGIA STANDARDS

Curriculum Standards	Arts Standards
Grade 5: S5E1. Obtain, evaluate, and communicate information to identify surface features on the Earth caused by constructive and/or destructive processes. a. Construct an argument supported by scientific evidence to identify surface features (examples could include deltas, sand dunes, mountains, volcanoes) as being caused by constructive and/or destructive processes (examples could include deposition, weathering, erosion, and impact of organisms). b. Develop simple interactive models to collect data that illustrate how changes in surface features are/were caused by constructive and/or destructive processes.	Grade 5: VA5.CR.2 Create works of art based on selected themes. VA5.CR.3 Understand and apply media, techniques, processes, and concepts of two-dimensional art.

SOUTH CAROLINA STANDARDS

Curriculum Standards	Arts Standards
6-ESS2-2. Construct an explanation based on evidence for how geoscience processes have	Anchor Standard 1: I can use the elements and principles of art to create artwork. Anchor Standard 2: I can use different materials, techniques, and processes to make art.

KEY VOCABULARY

Content Vocabulary	Arts Vocabulary
Constructive force - A natural process that builds up the Earth's surface, creating new landforms and adding to existing ones	 <u>Texture</u> - The surface quality, or "feel" of an object, such as roughness, smoothness, or softness. Actual texture can be felt while simulated textures are implied by the way the artist renders
 <u>Destructive force</u> - A natural process that breaks down or wears away the 	areas of the picture.
Earth's surface, destroying or altering landforms	 Shape - A flat, enclosed line that is always two-dimensional and can be either geometric or organic
 Weathering - The breakdown of rocks into smaller fragments without changing their chemical composition; it can be caused by wind, rain, hail, snow, water 	 Form - An object that is three-dimensional and encloses volume (cubes, spheres, and cylinders are examples of various forms)



- <u>Erosion</u> The natural process by which soil, rock, or other surface materials are worn away and transported from one location to another by agents such as water, wind, ice, or gravity
- <u>Deposition</u> The geological process by which sediments, soil, and rocks that are transported by wind, water, ice, or gravity are dropped or settled in a new location
- <u>Collage</u> A composition developed by gluing colored paper, photographs, magazine pictures, fabric, and other two-dimensional materials onto a flat surface
- Color An element of art with three properties: 1) Hue: the name of the color, e.g. red, yellow, etc.; 2) Intensity: the purity and strength of the color (brightness or dullness); 3) Value: the lightness or darkness of the color (shades and tints)
- <u>Depth</u> How near or far something appears
- Space The distance or area between, around, above or within things. Positive space refers to the subject or areas of interest in an artwork, while negative space is the area around the subject of an artwork. It can be a description for both two and three-dimensional portrayals.
- Additive techniques Adding materials together to build up texture
- <u>Subtractive techniques</u> Removing material using techniques such as tearing or carving

MATERIALS

- Landform collages slides
- 9 x 12 mixed media paper
- Variety of papers: Colored paper, construction paper, scrapbook paper, textured paper, sand paper, etc.
- Corrugated cardboard
- Aluminum foil
- Glue
- Visual Arts vocabulary poster
- See, Think, Wonder Artful Thinking Routine
- Elements of Art handout
- Example of additive sculpture
- Example of <u>subtractive</u> sculpture

INSTRUCTIONAL DESIGN

Opening/Activating Strategy



Teacher Note: In order to be successful in this unit students should be able to define constructive and destructive forces. Students should understand that landforms can change quickly or slowly over time. Students should be able to identify surface features caused by constructive and destructive forces.

- Review science vocabulary.
- Show students an example of a landform collage (slide two on <u>landform collages slides</u>).
- Using this artwork, engage students in the <u>See, Think, Wonder Artful Thinking Routine</u>.
 - Tell students: Look at the artwork for a moment.
 - Ask students:
 - What do you see?
 - What do you **think** about what you see?
 - What do you wonder about?
 - Why would the artist display these landforms?
 - What material do you think the artist used?
 - Does this artwork show a constructive or destructive force?
 - How is the space being used in this artwork?

Work Session

- Discuss the elements of art using the <u>Elements of Art handout</u>.
- The teacher will display another example of a collage that shows a landform (slide three on <u>landform collages slides</u>).
 - Divide students into small groups. Assign each group a different element of art.
 Have each group identify where they see the element in the artwork. Share out as a class.
- The teacher will display two pieces of artwork (waterfall and volcano—slide four on <u>landform collages slides</u>) and have students compare and contrast the art elements of texture, shape, and form found within.
 - Discuss how these pieces show different attributes: Constructive and destructive forces
- Display all types of landforms (slide one on <u>landform collages slides</u>) and discuss with students how they are formed. Allow students to share their understanding.
- Show students an example of an <u>additive</u> relief sculpture and a <u>subtractive</u> relief sculpture.
 Ask students to think about how they could use subtractive techniques (like tearing away the top of corrugated cardboard) and additive techniques (layering materials to build up texture and form) to show constructive and destructive forces.
 - Ask students which technique would show constructive (additive) and which technique would show subtractive (destructive).
- Explain to students that they will pick a landform and create their own collage using a
 variety of materials such as colored paper, construction paper, scrapbook paper, textured
 paper, sand paper, (corrugated cardboard can be good for destructive forces—tearing off
 the top surface), etc.
 - Tell students that they will be tearing materials rather than cutting them using scissors.
 - Students will focus on how they will use texture to show destructive and constructive forces.
 - Students will focus on how they can use additive and subtractive techniques (like layering and tearing) to correspond to destructive and constructive forces.
- Label one side of the classroom "Constructive Forces" and the other side of the room "Destructive Forces". Have students display their artwork on the correct wall.
- Provide time for students to conduct a gallery walk to observe both constructive and destructive force collages.



 Have students share their artwork with a partner and explain how their collage shows either a constructive or destructive force using texture and additive and subtractive techniques.

Closing/Reflection

Have students complete a brief artist statement describing how they showed a
constructive or destructive force using additive or subtractive techniques and texture.
Students should explain why they chose the materials they did for their collage.

ASSESSMENTS

Formative

- Teacher observation of student discussion
- Student planning for collage

Summative

Student collage with artist statement

DIFFERENTIATION

Accelerated:

- Students will create a Flipgrid to explain the art method and the scientific process that is portrayed in their artwork.
- Students can create two collages—one to show a destructive force and one to show a constructive force.

Remedial:

- Partner students together to create the collage.
- Allow students to orally present their artist statement rather than writing it.

ADDITIONAL RESOURCES

CREDITS

U.S. Department of Education- STEM + the Art of Integrated Learning Ideas contributed by: SAIL grant teacher leaders; Shannon Greene

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^{*}This integrated lesson provides differentiated ideas and activities for educators that are aligned to a sampling of standards. Standards referenced at the time of publishing may differ based on each state's adoption of new standards.