

## Virtual Club Pelican

**Project Title:** Layer by Layer Abstract Strata

**Theme:** Geology

**Age Range:** 7-12 years

**PROJECT INTRODUCTION:** Students will create a work of art interpreting the sediment layers of the Earth through drawing and collage. Students will learn about geology and strata (rock sediment layering) to inspire their unique work of art. Texture and balance will be considered in their compositions to form an abstract design.



### **PROJECT MATERIALS:**

- White Drawing Paper (size: 6"X 9)
- Recycled Printed Material from Home (magazine, newsprint, mailers, ads wrapping paper)
- Solid Natural Colored Paper
- Glue Stick
- Scissors
- Drawing Pencil
- Black Sharpie
- Colored Pencils

### **PROMPT QUESTIONS:**

1. Do you think that by studying rocks we can learn about history?
2. Have you ever heard of a Geologist? What do they do?
3. Have you ever noticed art in nature? How do you think art is seen in layers of the earth?

### **DISCUSSION** (discuss or read):

#### **What is Geology?**

Geology is the study of the nonliving things that the Earth is made of (*geo* means *earth*, and *ology* means *study of*). Geology is the study of rocks in the Earth's crust. An important part of Geology is studying the history of all life that has ever lived on, or is living on the earth now, and how life and our planet have changed over time.

People who study geology are called geologists. Geologists work to understand the history of our planet. The better they can understand Earth's history, the better they can foresee how events and processes of the past might influence the future.

## LESSON PLAN

Geologists study Earth processes such as landslides, earthquakes, floods, and eruptions. They study Earth materials that people use every day such as oil that is produced from wells, metals that are produced from mines, and water that has been drawn from streams or from underground. Geologists also study Earth history to learn about the past climates of Earth and how they have changed across time.

### **What are rock strata?**

Rock strata are layers of sedimentary rock which are often seen in exposed cliffs (Fig. A). Sedimentary rocks are rocks that form when different debris are pushed together over a long period of time and then sediment rocks form, usually in horizontal layers. This sediment can include minerals, small pieces of plants and other organic matter. The sediment is compressed and slowly changed by pressure, heat, and chemical action before consolidating into solid layers of rock – strata.

Rock strata reveals earth's history. The deeper the layers, the farther back in time is discovered (Fig. B). Like chapters in a very, very thick book, layers of rock record Earth's history. Each time a new layer of sediment is deposited it is laid down horizontally on top of an older layer. The strata layers archive the long story of life on Earth. It shows how and when species evolved. It also marks when they thrived — and when, over millions of years, most of them went extinct.

Changes in the strata typically occur so slowly that they are barely detectable over the span of a human life, yet even at this instant, the Earth's surface is moving and changing. As these changes have occurred, organisms have evolved, and remnants of some have been preserved as fossils in the strata. A fossil can be studied to determine what kind of organism it represents, how the organism lived, and how it was preserved. The order in which rock strata are deposited helps scientists to date past events, formations, and fossil organisms.

Over a long passage of time, strata may get deformed as a result of natural processes (volcanoes, earthquakes), and human activity (building, mountain moving). When strata rise above sea level they get worn down by erosion, such as weather. This causes uneven gaps in the sequence of rock layers, which may have risen and sunk many times in Earth history.

### **ART PROJECT KEY TERMS:**

**Geology** is the study of Earth—its interior and its exterior surface, the rocks and other materials that are around us, and the processes that have resulted in the formation of those materials.

**Stratigraphy** is the study of layered sedimentary rocks and how they were deposited.

**Strata** are layers of sedimentary rock.

**Visual Texture** is the way something looks like it feels, an implied sense of texture that the artist creates using various artistic elements such as line, shape, and color in a work of art.

**Balance** is how the elements of art (line, shape, color, value, space, form, texture) are arranged and relate to each other within the composition.

# LESSON PLAN

## ART MAKING PROCESS:

### Step 1:

Imagine you were a geologist studying the different layers of earth on a cliff side:

- What would you notice?
- Why do the cliffs look like they do?

Take a moment and observe the photos of strata in Fig. A:

- What stands out to you?
- How are they different?
- Are all the layers the same width and color?
- Do they seem to have the same texture? Why do you think this is?

### Step 2:

Begin with your white piece of paper and decide if you want to work with it horizontally or vertically. Next collect your recycled printed material along with the natural solid colored paper. As you sift through your printed material, consider prints with different textures and colors to use for different strata layers in your work of art. Think about each layer, and how the texture and color will compliment or work with the one above and the one below it as you imagine what your artwork will look like. Tear out the pages that interest you most to work with. Be sure to include a few solid colored pieces to work with (Fig. 1).

### STEP 3:

Carefully tear your printed and solid colors length wise into strips to resemble a layer of rock sediment. Will it be thick or thin, straight, or have areas that rise and sink to reflect deformed or eroded areas?

Be sure to consider the balance in your work of art when choosing the shape of your layers. Your pieces should be long enough length wise to reach across your paper, edge to edge. Be sure to incorporate some solid layers within your strata design (Fig. 2). Layer and arrange your strips as you build your cliff side. Be sure to leave some space above the top layer to represent the top of the earth. Keep adding to and taking away strips until you are please with how the pieces work and look together.

### STEP 4:

Use your glue stick to secure each layer onto your paper, making sure the edges are glued in places. Most of your pieces will hang off the edges (Fig. 3). When you are done, turn your paper over and use your scissors to cut off any strips hanging over, to create a nice clean edge (Fig. 4).

### STEP 5:

Think about what you want to draw above the top layer, what is on the top of the earth in your work of art? Think about drawing images in the solid colored areas of your strata, what images might be there? What details would you see in that space? (Fig. B) Option: color them in with your colored pencils or markers (Fig. 5).

### STEP 6:

Hold up your abstract work of art at arm's length, is there anything else you want to add? When you are pleased with your work of art, it is complete.

## POST PROMPT QUESTIONS (reflect and share):

1. What do you like best about your artwork?
2. What does your work of art make you think of?
3. Where do you imagine the strata cliffside you created to be?
4. What do you want people to notice about your work of art?

# ARTS EDUCATION PROGRAM

# LESSON PLAN

## ART PROJECT STEP BY STEP EXAMPLE:

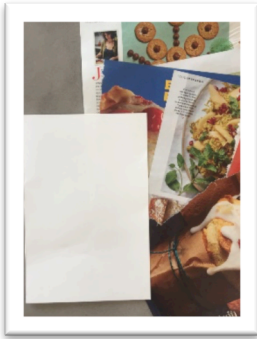


FIG. 1



FIG. 2

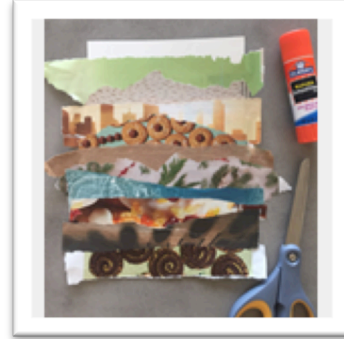


FIG. 3

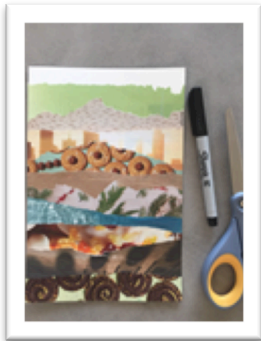


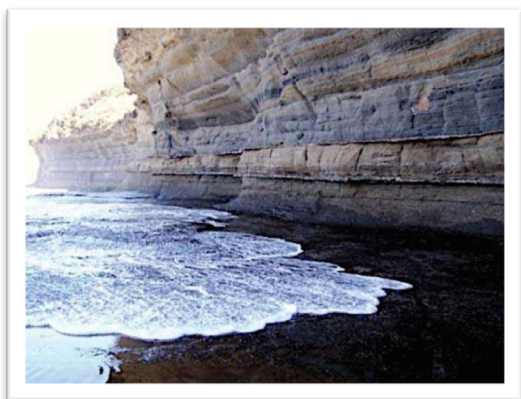
FIG. 4



FIG. 5

# LESSON PLAN

Fig. A: Strata Layers



# LESSON PLAN

Fig. B

