

To See the Sea

Artist Gregory Burns' connection with water began at age three when his doctor recommended he swim to counter the effects of polio. (Polio is a highly infectious disease that invades the nervous system. It can lead to paralysis. The polio vaccines developed by Jonas Salk in 1952 and Albert Sabin in 1962 dramatically reduced the number of polio cases.) "Water," Burns says, is "filled with life and color" that offers him "a sanctuary to swim and spin without the constraint of gravity."

Part I: Some 70 percent of Earth is covered with water—mostly oceans. They provide many different habitats and life forms—tiny, single-cell protozoa; marine invertebrates, including coral and sea anemones; marine vertebrates; and plankton. Marine ecosystems can be damaged by pollution, over-fishing, habitat destruction, and climate change. Only a very small percentage are protected by law.

Here are four different marine ecosystems. Write a description of each one. On the back of this sheet, draw a picture of your ecosystem.

- Coral reef _____
- Estuary _____
- Salt marsh _____
- Mangrove forest _____

Part II: Create an Ecosystem Mural.

To see Burns' paintings and drawings, go to www.vsarts.org/artistryofwater and click on **Activity 1 Images**.

For this project, your team will create a paper collage that presents a vibrant interpretation of your ecosystem. Your team's collage will be joined with those of other teams in your class to form an ecosystem mural. Use various approaches in creating your collage—gluing cutout images and pieces of paper, drawing, and painting—and use any mixture of media—water colors, acrylic paint, finger paint, crayons, colored pencils, etc. First you need to create a background for your team's collage. Your teacher will help you get started.



Gregory Burns sketching while scuba diving in the Maldives.
Photo: Angie Tan Burns



© 2003 Gregory Burns, *Flying Turtles*

Now, with your team, do some research about your ecosystem and complete the following chart.

My ecosystem	
Climate	
Location	
Vegetation	
Animals	
Damaging forces	



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Gregory Burns snorkeling above a coral reef.
Photo: Angie Tan Burns

Water, Water Everywhere

Water is an important source of inspiration for Gregory Burns' art. A champion swimmer who captured medals in England, Canada, and Brazil and who secured four world records in the 1992 Barcelona, 1996 Atlanta, and 2000 Sydney Paralympics, Burns loves being in the ocean. The fluid environment, he says, gives him the freedom to "dip, dive, and almost fly."

Part I: What is the importance of water in your life? Did you know that 97.2 percent of the water on Earth is salt water? All forms of life besides marine animals depend on that tiny little 2.8 percent of water that does not contain salt.



How much are you doing now to save water? Review these water-saving strategies with your family, enlist your parents help in accomplishing them, and add your own ideas on the blank lines provided.

Everyday Strategies

- If you don't have low-flow toilets, put two plastic quart bottles weighted down with sand in each toilet tank.
- Limit showers to the time it takes to soap up, wash down, and rinse off.
- Don't fill the bathtub full when you take a bath.
- Turn the water off after you wet your toothbrush.
- Only run the dishwasher when you have full loads.
- If you wash dishes by hand, wash everything in soapy water first, then rinse. Don't leave the water running while you wash.
- Keep a pitcher of drinking water in the refrigerator instead of constantly turning on the faucet.

- Don't run the washing machine when you don't have a full load.

- _____
- _____
- _____

Other Strategies

- Check toilet tanks for leaks—put several drops of food coloring in the tank. If the color begins to appear in the bowl, you have a leak. Adjust or replace the flush valve.
- Install water-saving shower heads.
- Check faucets and pipes for leaks.
- Plant drought-resistant plants, shrubs, and trees.
- Mulch plantings well.

- _____
- _____
- _____

Part II: Create a Water World.

Imagine that you are a raindrop, a drop of water from a melting polar icecap, a drop of spray from a wave in the ocean, or even a drop of water that was



© 2000 Gregory Burns, *Duet*

formed by condensation. Using any medium—chalk, crayons, paints, papier-mâché—to create a piece of art that represents how you view the experience of "being water." Before you begin, view some of Burns' paintings at www.vsarts.org/artistryofwater and click onto **Activity 2 Images**.

Making Waves



Gregory Burns boogie boarding. Photo: Angie Tan Burns

Contemporary artist Gregory Burns has said that having polio as a child gave him the attitude that he could do everything he wanted. He says that, “waves—how they rise up and break—invite me to surf, which then fuels me to paint.” The power of the waves and his appreciation for the beauty of water as a force of nature are reflected in his art.

Part I: Waves are a form of energy, and they are caused by blowing winds. The size of a wave is determined by the distance that the wind blows over open water, the length of time the wind blows, and the speed and strength of the wind. That wave travels across the ocean and releases its energy when it reaches the shore.

Before your group begins your water experiment, make a prediction. What do you think will happen when the fan blows across the water?

What happened when you fanned the water with your paper fan?

What happened when you used the electric fan?

As one member of your team lines up four of the marbles on a table top, predict what will happen when the remaining marble rolls into the marble at the end of the row.

Repeat the experiment several times. What actually happened?



After each experiment, discuss why you had the outcomes that you did.

Part II: Drawing Waves. As an athlete, Burns enjoys body boarding in the waves. As an artist, he is inspired by their power and beauty. Now, it’s time for you to create your own interpretation of the power of the sea and the waves. Using what you have learned about waves and any medium and technique, create a series of



© 2005 Gregory Burns, Wave 1

abstract images using circular patterns to depict the life of a wave as it moves through the sea. Before you begin, view Burns’ wave sketches and paintings that depict the power of the sea by going to www.vsarts.org/artistryofwater and clicking onto **Activity 3 Images**.

River Art

Renowned artist Gregory Burns believes that polio challenged him to excel. He says, "We must learn to harness the setbacks in our lives, which are what bring us inner strength." He is inspired by the way rivers cut through the earth's crust and fall from high places as they make their way to the sea. He is also amazed at how the universe creates order out of chaos. His paintings reflect this, ending up different than he had imagined at the start.

Part I: Have you ever noticed how a small local stream changes after a heavy rain? It flows faster, swells, and sometimes even overflows its banks. Unfortunately, rainwater isn't the only thing that finds its way into our waterways.

Here are some things, in addition to water, that the average storm sewer collects when it rains: pesticides/fertilizer, motor oil, soil/sand resulting from erosion, grass clippings/twigs, and trash.

Which one of these pollutants will your team research? _____

With your team, answer the following questions. If you need more space, use the back of this paper.

Is your pollutant natural or man-made?

What could have caused your pollutant to reach the stream?

What happens when it does reach the stream?



Gregory Burns painting the Teton waterfall. Photo: Angie Tan Burns

What can be done to prevent your pollutant from entering the storm drain and reaching the stream?

Part II: Painting Water. To begin, take a look at Burns' river paintings, his ink line drawings of a river and waterfall at www.vsarts.org/artistryofwater

and click on **Activity 4 Images**. Think about how he used simple lines and curves to convey the feeling of motion, and how he added color to bring the river to life. Think about the colors in a local stream or a river, and in the pictures of streams and rivers that you saw on the Internet. Did you notice how different the water looked in different pictures, and how many changes there could be in just one picture?



© 2009 Gregory Burns, *Stream*

Create a line drawing of your own. Then, using watercolors, pastels, or colored pencils, give your water depth and life with color. Experiment with variations in color by layering one color over another.