

# Moving Waters

## Every Action has a Reaction



*Water is mobile*  
*Water is sensitive*  
*Water is open*

*Water is always found in circulation*

*Life on earth is irrevocably linked to water; to fluid water*

*If one does not understand fluid water*  
*One cannot understand life*

– Wolfram Swenk, Andreas Wilkens, and Michael Jacobi  
from the series *Sensibles Wasser*, 2003

### **Purpose**

To provides students with the means for understanding and exploring nature through student-centered art-making and discussion.

### **Overview**

This lesson will allow students to observe and discuss the patterns and formations of fluid, moving water through observation, discussion and experimentation. Students will explore the interplay between water and various external forces, with a focus on the underlying interconnectedness of nature. Students will be given the tools and techniques to create original works of art based on their discussions surrounding the properties of moving water.

## Educational Standards Addressed:

Texas Essential Knowledge and Skills (TEKS)

Chapter 112 Fine Art Grades k-5

Chapter 117 Science k-5

## Materials

- Illustrated river system handout
- Images of flowing water in various forms, ideally from natural and urban environments (slides can be ordered from 04Arts)
- Large bottle of liquid starch
- Blue acrylic paint
- Plastic bowls, or shallow baking dishes
- A variety of tools to create patterns in the paint (such as feathers, twigs, forks and combs)
- White unlined note cards

“Looking at a naturally flowing stream we notice the winding course it takes through the valley. It never flows straight ahead. Are these meanderings in the very nature of water? The rhythm of its meanders is part of the individual nature of a river. In a wide valley, a river will swing in far-flung curves, where as a narrow valley will cause it to wind to and fro in a faster and faster rhythm. A brook running through a meadow makes many small, often only tentative bends... The river tries to turn the unnaturally straight course into its own natural one.”

– Theodore Schwenk

*Sensitive Chaos: The Creation of Flowing Forms in Water and Air*

## DISCUSSION 1

1. Begin with an image of moving water, this can be either a work of art, or a photograph from nature. The purpose of the discussion is to allow students to explore the aesthetic and physical properties of water through their own observations. Remember, this is a student-centered lesson plan, so try to restrain from adding factual information to their discussion.
2. Using the Visual Thinking Strategies method, ask students to take a quiet moment to really look at the picture.
3. After 1-2 minutes proceed with the following questions:
  - What’s going on in this picture?*
  - What do you see that makes you say that?*
  - What more can we find?*
4. Through the course of the discussion students will have a chance to ponder the relationship between water and it’s environment.
4. The number of images you use is flexible, anywhere from 1 to 4 images will probably fit into about a 30 minute discussion, depending on the age of the students.

## DISCUSSION 2

1. Pass out the hand out illustrating a river system.
2. Give the students several minutes to look at the maps on their own before asking them the VTS questions starting with, "What's going on in this picture?"
3. If connections between the first set of images and the river illustration do not present themselves on their own, it's okay to ask students, "what connections do you see between this illustration and the picture we looked at earlier?"

\* Discussion 2 is not necessary for K-2nd grade

## ACTIVITY

This activity will give students the opportunity to explore the properties and patterns inherent to fluid, moving water. Students will be able to make beautiful images reflecting the interplay of opposing forces present in our environment.

You will need:

- a large bottle of liquid starch
- blue acrylic paint
- two large flat baking dishes or dish pans
- a few plastic cups or glass jars
- a variety of tools

Fill half the dishes or bowls with starch to a depth of about 2 inches; fill the second half with cool water. In custard cups or other small containers, dilute blue paint until it just barely drips from a brush. Then drip colors on top of the starch until the surface of the starch is partially covered.

Allow students to move the paint around in different ways, encouraging them to experiment. What would happen if you shook the dish from side to side? Blew on the paint? Tilted the dish so that the paint would run unevenly? Demonstrate methods for creating organic patterns with various tools like twigs and forks.

Hold a card or piece of paper by opposite corners and bend it gently so the paper sags slightly. Lay it gently on top of the paint, but do not allow the paper to sink below the surface. Immediately lift paper back out of the starch. Hold it over the dish and allow the paint to drip off for a few seconds.

Rinse paper in the dish of plain water. Lift paper out of water and allow it to drip for about 15 seconds or until most of the water has dripped off. Lay the paper flat, paint side up, on a work surface to dry.

\* The more cards each student has, the better. Encouraging students to experiment with different ways to create patterns is the most important part of this activity.

## EVALUATION

1. Ask students to pick 1 or 2 of their favorite paintings to present to the class.
2. Allow the other students to guess how the image was made.
3. End the lesson with a quote that celebrates the beauty and excitement of moving water!

## RIVER QUOTES

*"Sometimes luck is with you, and sometimes not, but the important thing is to take the dare. Those who climb mountains or raft rivers understand this."*

– David Brower

*"Wilderness itself is the basis of all our civilization. I wonder if we have enough reverence for life to concede to wilderness the right to live on?"*

– Mardy Murie

*"It's easy to become hopeless. So people must have hope: the human brain, the resilience of nature, the energy of young people and the sort of inspiration that you see from so many hundreds of people who tackle tasks that are impossible and never give up and succeed."*

– Dr. Jane Goodall

*"A river is the most human and companionable of all inanimate things. It has a life, a character, a voice of its own, and is as full of good fellowship as a sugar-maple is of sap. It can talk in various tones, loud or low, and of many subjects grave and gay... For real company and friendship, there is nothing outside of the animal kingdom that is comparable to a river." – Henry VanDyke*

*"To stick your hand into the river is to feel the cords that bind the earth together in one piece." – Barry Lopez*

*"Anything else you're interested in is not going to happen if you can't breathe the air and drink the water. Don't sit this one out. Do something. You are by accident of fate alive at an absolutely critical moment in the history of our planet."*

– Carl Sagan

*"In this sometimes turbulent world, the river is a cosmic symbol of durability and destiny; awesome, but steadfast. In this period of deep national concern, I wish everyone could live for a while beside a great river." – Helen Hayes*

*"When one tugs at a single thing in nature, he finds it attached to the rest of the world."*

–John Muir

*"What makes a river so restful to people is that it doesn't have any doubt—it is sure to get where it is going, and it doesn't want to go anywhere else." – Hal Boyle*

*"I choose to listen to the river for a while, thinking river thoughts, before joining the night and the stars." – Ed Abbey*

*"We forget that the water cycle and the life cycle are one." – Jacques Cousteau*

*"A river seems a magic thing. A magic, moving, living part of the very earth itself." – Laura Gilpin*

*"When the well's dry, we know the worth of water." – Benjamin Franklin*

*"Between earth and earth's atmosphere, the amount of water remains constant; there is never a drop more, never a drop less. This is a story of circular infinity, of a planet birthing itself." – Linda Hogan*

*"Filthy water cannot be washed." – West African Proverb*

*"Water is fluid, soft, and yielding. But water will wear away rock, which is rigid and cannot yield. As a rule, whatever is fluid, soft, and yielding will overcome whatever is rigid and hard. This is another paradox: what is soft is strong." – Lao-Tzu*

*"Gutta cavat lapidem (Dripping water hollows out a stone)" – Ovid*

*"So-this-is-a-River."*

*"THE River," corrected the Rat.*

*"And you really live by the river? What a jolly life!"*

*By it and with it and on it and in it," said the Rat. "It's brother and sister to me, and aunts, and company, and food and drink, and (naturally) washing. It's my world, and I don't want any other. What it hasn't got is not worth having, and what it doesn't know is not worth knowing. Lord! the times we've had together ..."*

*– Kenneth Grahme, The Wind in the Willows*

*"I have never seen a river that I could not love. Moving water... has a fascinating vitality. It has power and grace and associations. It has a thousand colors and a thousand shapes, yet it follows laws so definite that the tiniest streamlet is an exact replica of a great river."*

*– Roderick Haig-Brown*

*"To live by a large river is to be kept in the heart of things." – John Haines*

*"You could not step twice into the same rivers; for other waters are ever flowing on to you."*

*– Heraclitus of Ephesus*

*"What would the world be, once bereft of wet and wildness? Let them be left, O let them be left, wildness and wet; Long live the weeds and the wilderness yet." – Gerard Manley Hopkins*

*"Eventually, all things merge into one, and a river runs through it. The river was cut by the world's great flood and runs over from the basement of time. On some of the rocks are timeless raindrops – under the rocks are the words and some of the words are theirs."*

*– Norman Maclean*

*"Rivers are magnets for the imagination, for conscious pondering and subconscious dreams, thrills and fears. People stare into the moving water, captivated, as they are when gazing into a fire. What is it that draws and holds us? The rivers' reflections of our lives and experiences are endless. The water calls up our own ambitions of flowing with ease, of navigating the unknown. Streams represent constant rebirth. The waters flow in, forever new, yet forever the same; they complete a journey from beginning to end, and then they embark on the journey again." – Tim Palmer*

*"Find some long river and follow it down." – Greg Brown*