The Trinity, Then & Now

Presented by Imagination Fort Worth

With Texas Wildlife Association & The Amon Carter Museum of American Art

A two part experience on the river and in the museum.
“In rivers, the water that you touch is the last of what has passed and the first of that which comes; so with present time.” - Leonardo da Vinci
Students will rotate through four stations while in the field for a hands-on investigation.

- Riparian/Rainfall Simulator
- Collect & Identify Macro-Invertebrates
- Collect/Test Trinity River Water Samples
- Participate in the Water Cycle Boogie

The Texas Wildlife Association had included a list of key questions & vocabulary words to help prepare for your onsite visit, click the link below jump to this information.

To jump to the Texas Wildlife Association prep, click here!
Students will tour The Amon Carter Museum of American Art’s exhibit:

• *Navigating the West: George Caleb Bingham and the River*

• *Meet Me at the Trinity: Terry Evans Photographs*

• *Participate in an exciting art activity.*
History of The Trinity River

• “Trinity” has been identified as the river that the Caddo Indians called Arkikosa in Central Texas and Daycoa nearer the coast.

• In 1687 it was named River of the Canoes by French explorer Rene Robert Cavelier Sieur de La Salle.

• The name Trinity (shorted from the original name La Santisima Trinidad) was first applied by Spanish explorer Alonso De Leon in 1690.

Learn more about the Trinity: http://www.tshaonline.org/handbook/online/articles/rnt02
The Trinity and Fort Worth

Ripley Allen Arnold, was assigned to the First Dragoons in 1838 after graduating from West Point Military Academy. He was given command of Company F of the Second Dragoons and ordered to north Texas to establish a military post "at or near the confluence of the West Fork and the Clear Fork of the Trinity River."

In 1849, he left Fort Graham with 42 dragoons and proceeded to the banks of the Trinity, where he established Camp Worth, (later called Fort Worth) named after Gen.Worth who unbeknownst to Arnold had just died of cholera in San Antonio.

Learn more about Ripley Arnold: http://www.tshaonline.org/handbook/online/articles/far16
The statue of Major Ripley Allen Arnold sits on the banks of the Trinity River, just below the bluff where the original Camp Worth stood.

Today the Trinity is a launching point for Fort Worth’s *river regeneration* program with activities like music and paddle boarding.
On May 17, 1949, the Clear Fork of the Trinity River in Fort Worth broke through its levees and spilled floodwaters into the city. An estimated 11 inches of rain fell overnight on the Clear Fork’s watershed southwest of the city.
10 people were killed, property damage exceeded $11 million. The flood prompted creation of the U.S. Army Corps of Engineers Fort Worth District and the construction of the existing levee system.
Why are rivers important?

Historically, communities were built near rivers. Why? We need water to survive; to drink, cook, bath & clean.

**Water:** Rivers carry water and nutrients to areas all around the earth. They play a very important part in the water cycle, acting as drainage for surface water. Rivers drain nearly 75% of the earth's land surface.

**Habitats:** Rivers provide excellent habitat and food for many of the earth's organisms. Animals use the river for food and drinking. Insects, mammals and birds also use rivers for their homes.
Why are rivers important?

**Transportation:** Rivers provide travel routes for exploration, commerce and recreation.

**Farming:** River valleys and plains provide fertile soils. Farmers in dry regions irrigate their cropland using water carried by irrigation ditches from nearby rivers.

**Energy:** Rivers are an important energy source. During the early industrial era, mills, shops, and factories were built near fast-flowing rivers where water could be used to power machines. Today steep rivers are still used to power hydroelectric plants and their water turbines.
Texas Wildlife Association Prep Information: Trinity River
Project Key Questions from Texas Wildlife Association

- What is a watershed?
- Why is it important to take care of our water?
- What happens to plants & animals around the river if our watershed is not taken care of?
- How do our choices affect the quality of our water and the life surrounding it?
- How can we test the quality of our water?
- What is pH?
- What tools do you use to measure pH, temperature, distance, etc?
- Is it better to collect data just once or over a period of time?
- How do you find the average of our data?
Texas Wildlife Association Prep Information: Trinity River Project Key Questions from Texas Wildlife Association

• How can you create a graph using our data?
• Is the data going to be the same for each testing point on the watershed?
• How can we communicate our learning with others?
• Why is it important to test our water?
• What specific animals and plants need the Trinity River in order to survive?
• What are the constants as we test the water?
• What are the variables as we test the water?
• Where did the water in the Trinity River come from?
• What happens to the water in the Trinity River (water cycle)?
Texas Wildlife Association Prep Information: Trinity River Project Key Questions from Texas Wildlife Association

• Why don’t all people take care of our water?
• What are the different types of water pollution?
• What are freshwater macro invertebrates, and how can they tell us whether the water in which they live is polluted or clean?
• How does sediment affect water quality?
• How does land use along a river impact the health of the river and the life in it?
• Why is it important to conserve water, and what are some common ways water is wasted?
• Which types of land surfaces allow water to soak in, and which cause water to run off the ground?
Use textbooks, online resources and dictionaries to define the **Stewardship** and the **Trinity River** words shown on the next few pages.

Useful online resources: [http://water.usgs.gov/edu/dictionary.html](http://water.usgs.gov/edu/dictionary.html)

[http://geographyfieldwork.com/GeographyVocabularyGCSE Rivers.htm](http://geographyfieldwork.com/GeographyVocabularyGCSE Rivers.htm)
Aquifer  Freshwater
Condensation  Groundwater
Dissolved Oxygen  Habitat
Ecosystem  Hydrology
Erosion  Impermeable
Evaporation  Infiltration
Food Chain  Macroinvertebrates
Texas Wildlife Association Prep Information: Trinity River Project Vocabulary from Texas Wildlife Association

Nonpoint Source
Overdraft
Percolate
Permeable
pH
Pollution

Porosity
Precipitation
Recharge
Reservoir
Riparian Zone
Runoff
Pollution Point Source
Saltwater
Saturated Zone/Unsaturated Zone
Scum
Sediment
Surface Water
Transpiration
Tributary
Water
Water Cycle
Water Quality
Watershed
Wetland
Navigating the West, a dynamic exhibition featuring sixteen iconic river paintings and fifty drawings, reveals for the first time how George Caleb Bingham (1811-1879) created his art and artistic persona at a time when American painting, like the country, was dramatically shifting. Then and now our nation’s waterways - how they are used, controlled, and the lives of the people closest to them - remain a current and important issue.
George Caleb Bingham was born on in 1811, in Augusta County, Virginia. Living on a large farm, George showed a strong interest in drawing at an early age. He supposedly drew on the sides of barns, fence posts, and the walls of the family mill. When George was seven, his father lost most of the family’s property to cover a friend’s debts. George and his family left Virginia and headed to Missouri to build a new life. The Bingham’s settled in Franklin, a village on the banks of the Missouri River. His father opened an inn called the Square and Compass. His mother was an educated woman and soon started a school for girls, one of the first west of the Mississippi River.
Sixteen-year-old George Caleb Bingham started painting portraits. In the days before photography, many people were eager to have likenesses of loved ones. By 1833 Bingham was earning his living as a portrait painter.

Growing up along the Missouri River, Bingham had vivid mental pictures of life on the river. He knew the people and their occupations firsthand. While he still traveled extensively, painting portraits to support his family, Bingham started painting genre scenes that showed life on the frontier. Bingham’s drawings and paintings have been given careful attention, and today he is considered one of America’s greatest and most popular painters. His work about life on the river allows history to come to life.
The Amon Carter Museum of American Art

What does Bingham’s work tell you about life on the river in the mid-1800’s?
The Amon Carter Museum of American Art

Bingham was a successful artist during the mid-1800’s, this was a time of when American artists were finding an original voice to portray life in our young country.

Another well known figured who focused on life on the river was the writer Mark Twain. Stories such as *The Adventures of Tom Sawyer*, *The Adventures of Huckleberry Finn*, and *Life on the Mississippi* transformed literature during this time and still influences writers, storytellers and filmmakers today.

Learn more about Mark Twain: [https://www.youtube.com/watch?v=vuQMBWjmI1k](https://www.youtube.com/watch?v=vuQMBWjmI1k)
The Amon Carter Museum of American Art

Meet Me at the Trinity: Photographs by Terry Evans

In conjunction with the Bingham exhibition, the Amon Carter Museum has commissioned Chicago-based artist Terry Evans to photograph the Trinity River as it runs through Fort Worth. Evans is one of the nation’s acclaimed landscape photographers, and her works offer visitors an opportunity to think about our local river in the context of Bingham’s nineteenth-century work. The exhibition will include forty-one, large-scale color photographs that depict the river’s look and culture, including its distinct channeling and the people drawn to its banks.

http://www.cartermuseum.org/exhibitions/meet-me-at-the-trinity-photographs-by-terry-evans
• Looking at Terry Evan’s photographs, think about how photography is different from painting to document a location?

• How has life changed on American rivers from Bingham’s time to Evan’s time?
Contemporary Culture and Life on the Trinity River: Exploring public art and music on DFW’s Trinity River

Today rivers are a source of inspiration for creative people. Through the efforts of arts councils, civic groups and cultural centers life on the river today is focused on leisure and entertainment.

A great example of visual art recently showcased on the banks of the Trinity is Ruben Ochoa’s installation *Flock in Space*, at the Trinity River Audubon Center in Dallas. This installation consists of 100 concrete and steel “birds” who “take flight”, recalling the industrial origins and environmental resurrection of the Trinity River Audubon Center. Ruben Ochoa created this site specific work as part of the *Nasher Xchange*.

Learn more about Ochoa’s installation: [http://www.nashersculpturecenter.org/art/exhibitions/exhibition?id=29](http://www.nashersculpturecenter.org/art/exhibitions/exhibition?id=29)
Ochoa responded to the origins of the Trinity River Audubon Center as an illegal dump site in southeast Dallas, which now serves as a beautiful nature center at the edge of the largest urban hardwood forest in the US. By evoking the site’s change from an urban dumping ground to a place of scenic beauty, *Flock in Space* reflected the malleability & resiliency of nature. This was his first public sculpture commission.
Music events such as Rockin’ The River a free weekly summer concert series featuring top names from the innovative Texas Country music scene take place on a stage is right on The Trinity River in the shadow of downtown Fort Worth. You can enjoy the show floating in the river or on the banks of the river. This reinvigoration of life on the river has sparked creativity and energy into Fort Worth’s fist asset, the Trinity River.
## Imagination Celebration would like to recognize our Donors:

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