

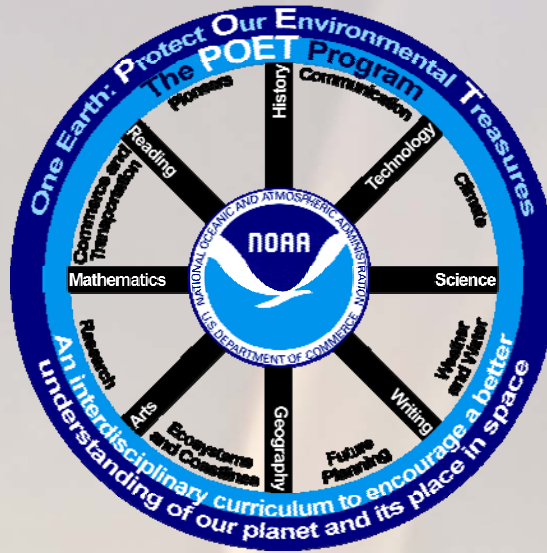
# Tornado Over Kansas

## Category

Art, Science

## Real World Connection

Communication, Weather, Future Planning



## Materials

A copy of the painting "Tornado Over Kansas" by John Steuart Curry (Included)

## Problem Question

How are art and science related?

(Use an example to answer the question.)

### Prior Knowledge What I Know

Based on your prior knowledge, answer the problem question to the best of your ability.

### Conclusion What I Learned

Answer the problem question after completing the activity. Include an example in your answer.

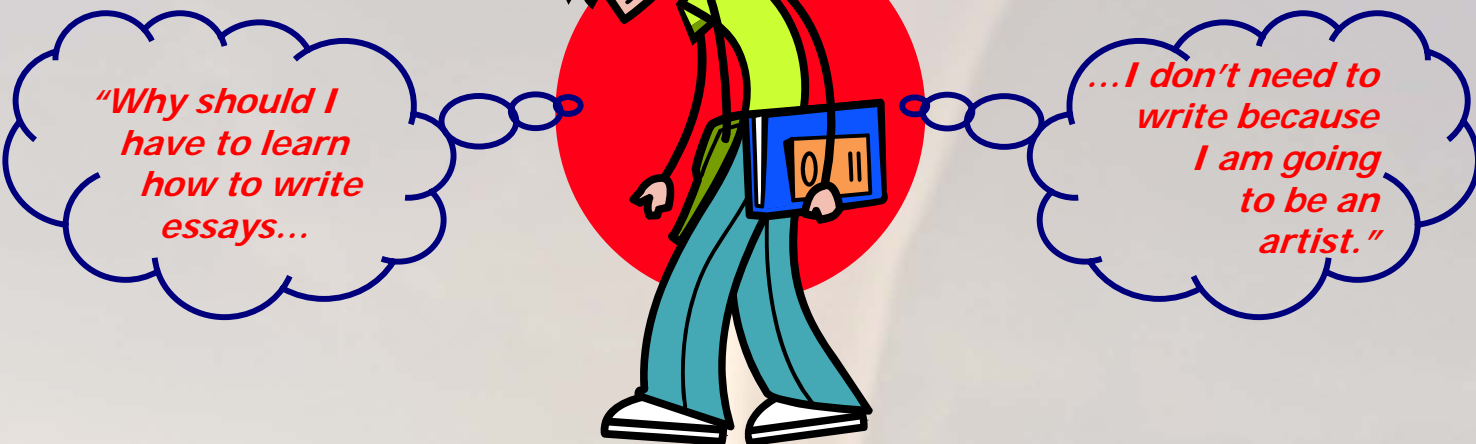


## Background

Although we tend to separate art and science into different categories, these seemingly opposite areas of work and study are often closely related. For example, an architect combines art and the science of engineering when designing a building. The engineering aspect ensures that the building is stable, can withstand high winds and rain and will last a reasonable amount of time. Art influences the shape of the building and the character of its exterior and interior, and ensures that it is pleasing to the eye, perhaps even striking.

### Procedure - Part 1

Have you ever thought...



Fill-in the quadrangle below with any subject that does not interest you.

Fill-in the quadrangle below with your reason for not wanting to learn the subject.

*Why should I have to learn...*

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*...because I am...*

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If you have similar thoughts, you have lots of company.

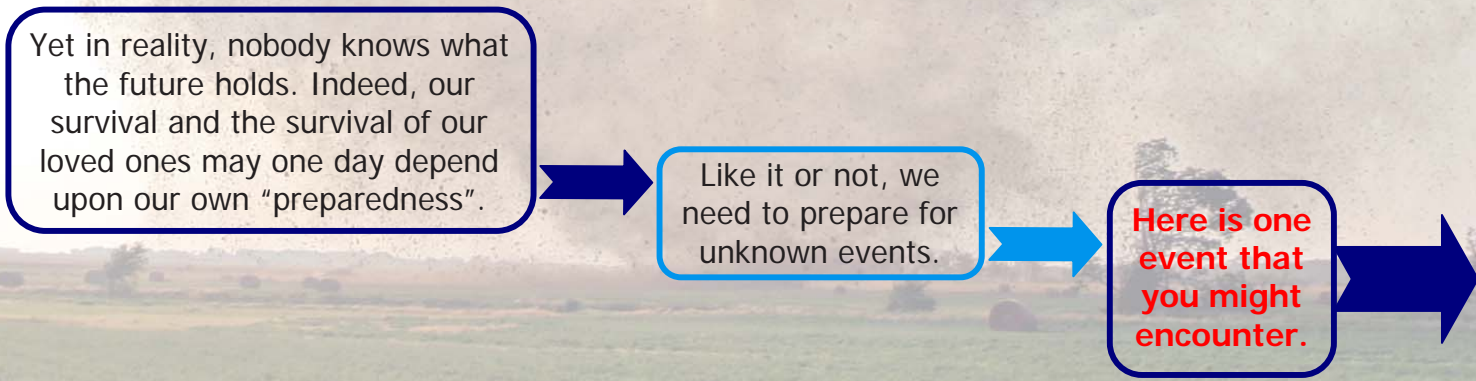




Figure 5-1. "Tornado Over Kansas" Painting by John Steuart Curry – 1929.  
(Use of Curry painting courtesy of the Muskegon Art Museum, Muskegon, Kansas)

The artist of "Tornado Over Kansas", John Steuart Curry (1897 - 1946) was an American painter who tried to realistically represent the American people, their history, and their stories. Sensitive to the feelings of sadness and lost dreams brought about by the Great Depression in the 1920s and 1930s, Curry attempted to help fellow citizens regain a sense of pride with his art work.

1. What can you observe and infer about the people?
2. What can you observe and infer about the weather?
3. What other things can you observe in the painting and then infer about the artist?

Fill-in the tables on the next page (Table 5-1) with your observations and inferences.

<u><i>People</i></u>		<u><i>Weather</i></u>	
<i>Observations</i>	<i>Inferences</i>	<i>Observations</i>	<i>Inferences</i>
Door to the Shelter is Open	People Plan to Enter the Shelter	Green Sky	Hail

<u><i>The Artist – John Steuart Curry</i></u>	
<i>Observations</i>	<i>Inferences</i>
Colors are Realistic	Artist Knows Chemistry of Mixing Paint

Table 5-1. Observations and Inferences using Figure 5-1.

## Procedure - Part 2

Choose one of the exercises from the list below. Follow directions using the space provided.

1. Write one paragraph that describes when either you or someone you know experienced some unusual weather, not necessarily a tornado.
2. Sketch a situation where either you or someone you know experienced some unusual weather.
3. Use "bullets" in a list to describe a situation where either you or someone you know experienced some unusual weather.



## Procedure - Part 3

Using the NOAA/NWS Tornado Safety information at the rest of this activity, prepare a home plan for your family. Include where to meet, where to take shelter, responsibilities for each family member.... and

**PRACTICE!**

***Tornado Preparedness Plan for the  
( \_\_\_\_\_ ) Family***

**Place to Meet**

**Where to Go for Shelter**

**Name of Each Family Member  
with His/Her Responsibilities**



## Additional Information on Tornado Safety

There is no such thing as guaranteed safety inside a tornado. Freak accidents happen; and the most violent tornadoes can **level and blow away** almost any house and its occupants. Extremely violent F5 tornadoes are very rare, though. Most tornadoes are actually much weaker and can be survived using these safety ideas.

### Prevention and Practice Before the Storm

At home, have a family tornado plan in place, based on the kind of dwelling you live in and the safety tips that follow.

Know where you can take shelter in a matter of seconds, and practice a family tornado drill at least once a year.

Have a pre-determined place to meet after a disaster.

**Flying debris** is the greatest danger in tornadoes; so store protective coverings (e.g., mattress, sleeping bags, thick blankets, etc) in or next to your shelter space, ready to use on a few seconds' notice.

When a tornado watch is issued, think about the drill and check to make sure all your safety supplies are handy. Turn on local TV, radio or NOAA Weather Radio and stay alert for warnings.

Forget about the old notion of opening windows to equalize pressure; the tornado will blast open the windows for you!

If you shop frequently at certain stores, learn where there are bathrooms, storage rooms or other interior shelter areas away from windows, and the shortest ways to get there.

All **administrators of schools**, shopping centers, nursing homes, hospitals, arenas, stadiums, mobile home communities, and offices should have a tornado safety plan in place, with easy-to-read signs posted to direct everyone to a safe, close-by shelter area.

Schools and office building managers should regularly run well-coordinated drills.

If you are planning to build a house, especially east of the Rockies, consider an underground tornado shelter or an interior **"safe room"**.



*Figure 5-2. This is classic F5 damage. The Bridge Creek/Moore, Oklahoma, tornado of 3 May 1999 leveled this house, swept the foundation almost completely clean, shredded the house remains into small pieces and scattered the debris downwind to the northeast (rear). The house was relatively well-constructed with slab-to-wall anchor bolts evenly spaced around the bottom plate. Some of those bolts can be seen in this photo, protruding upward from just inside the edges of the concrete slab.*



*Figure 5-3. An example of tornado debris that has been turned into a flying projectile.*

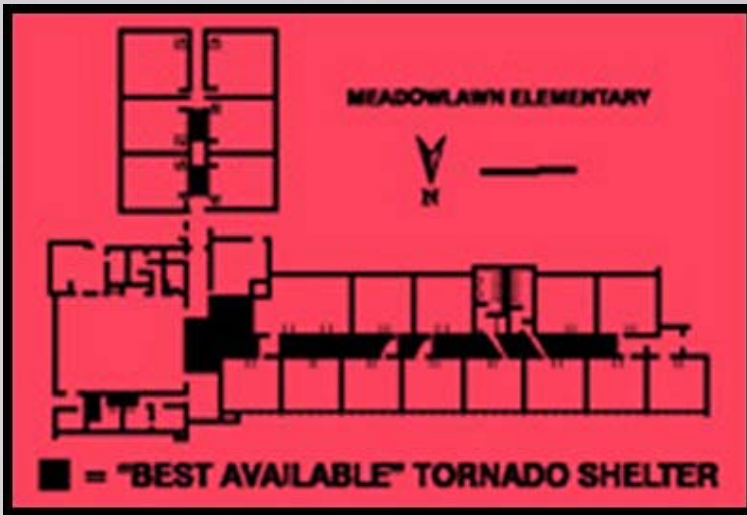


Figure 5-4. An example of a building's tornado safety plan sign directing people to safe places.



Figure 5-5. An example of a tornado "safe room" for either exterior or interior home use.

### In a House With a Basement

Avoid windows. Get in the basement and under some kind of sturdy protection (heavy table or work bench), or cover yourself with a **mattress** or sleeping bag. Know where very heavy objects rest on the floor above (pianos, refrigerators, waterbeds, etc.) and do not go under them. They may fall down through a weakened floor and crush you.

### In a House with No Basement, a Dorm, or an Apartment

Avoid windows. Go to the lowest floor, small center room (like a bathroom or closet), **under a stairwell**, or in an interior hallway with no windows. Crouch as low as possible to the floor, facing down; and cover your head with your hands. A **bath tub** may offer a shell of protection. Even in an interior room, you should cover yourself with some sort of padding (mattress), blankets, etc.), to protect against **falling debris** in case the roof and ceiling fail.

### In a Mobile Home

Get out! Even if your home is tied down, you are probably safer outside, even if the only alternative is to seek shelter out in the open. Most tornadoes can destroy even tied-down mobile homes; and it is best not to play the low odds that yours will make it. If your community has a tornado shelter, go there fast. If there is a sturdy permanent building within easy running distance, seek shelter there. Otherwise, lie flat on low ground away from your home, protecting your head. If possible, use open ground away from trees and cars, which can be blown onto you.



Figure 5-9. Stairwell among debris.

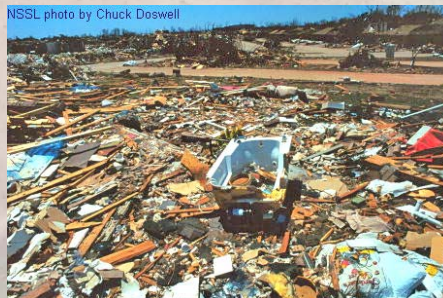


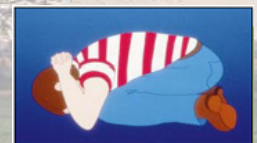
Figure 5-8. Bath tub among debris.



Figure 5-6. A mattress among tornado debris.



Figure 5-7. Tornado debris inside a house.





## Additional Information on the Painting “Tornado Over Kansas”

### From The Grace Museum – Education – Teacher Resources

“*Tornado over Kansas*” by John Steuart Curry captures a terrifying incident on a Midwestern farm as a family rushes to the storm shelter to escape a rapidly approaching twister, one of the most fearful natural disasters on earth. A sickly green light permeates the scene as the tornado drops down to the ground from an ominous layer of dense, brownish-black clouds. A sense of terrible urgency pervades the scene.

The father, pictured as a heroic figure, pulls his barefoot daughter by the hand and protectively looks back to see that his sons are following closely behind. The mother pauses at the entrance to the shelter, cradling her baby in a patchwork quilt and looking back at her family with fear and alarm.

The cyclone seems to have struck with little warning, as the family has had time to gather only what they hold most dear – each other and their pets. An older boy carries three small puppies as their brown- and white-spotted mother anxiously looks upward towards them. A younger boy is desperately trying to hold on to an uncooperative black cat. In the near distance, horses wheel in frenzied panic directly in the path of the rapidly advancing tornado. The only unconcerned participant in this drama is a white chicken standing at the foot of the stairs, to all appearances, oblivious to imminent danger.

Painted in 1929, *Tornado over Kansas* presents visual evidence of the hard life experienced by farm families in the Midwest and West. The man and his boys wear overalls, the working garment of the time, and the two younger children are barefoot. The mother probably made most of their clothes and used leftover scraps of fabric to make the patchwork quilt that swaddles her baby.

The weatherworn house and outbuildings are plain, and the only toy visible is a simple child’s pull cart. No evidence of electric power is visible; there is a wagon but no car. Farming was a difficult business, always at the mercy of the elements. Natural disasters could arrive at any time in the form of tornadoes, windstorms, dust storms, blizzards, floods, drought, or grasshoppers. The life this family has been able to wrest from this ground has been meager but honest.

“*Tornado over Kansas*” pictures a time just before the Dust Bowl years that devastated Midwestern farmers such as the artist’s father. Though this painting depicts a particular event, time, and place, it transcends the region through its American icons – the patriarchal father, the family, the farmhouse, pets, even a bit of picket fence – at the mercy of an overpowering and destructive force of nature.

As a child growing up in Kansas, the artist John Steuart Curry had firsthand experience of tornadoes. Kansas is the state most associated with tornadoes, due in large part to L. Frank Baum’s popular book, first published in 1900, *The Wonderful Wizard of Oz*. “*Tornado Over Kansas*” also captured the popular imagination, as it was widely reproduced.

### ***Tornado Images in this Activity***

*Activity Background*  
> *Tim Samaras*

*Tornado Preparedness Plan*  
> *Wayne Hanna*  
> *Wisconsin State Journal*  
> *Doug Keister*  
> *Eric Nguyen*

