

The How-to's for being a Sandburg Citizen Scientist

All around the world professional scientists are asking citizens to help them conduct scientific research. You can help National Park scientists monitor the health of the lake by becoming a Citizen Scientist here at the Carl Sandburg Home National Historic Site.

Get started by following the trail around the lake.
Look for these symbols to start an activity.



1. Complete the activity at each station and record your results.

2. After you finish the trail be sure to submit your findings at KidsInParks.com to earn free prizes!

If you don't want a prize but still want to help scientists gather data, you may take a photo of your brochure and email it to carl_administration@nps.gov

Some stops may have scientific equipment to take measurements. Be sure to use the equipment carefully and return it when you are done so other Citizen Scientists can do research too!

For further Citizen Science exploration visit:

usanpn.org
science.nature.nps.gov
monarchwatch.org
scistarter.com



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Sandburg Citizen Science



Hi! It's KIP and TRACK and we need your help! Come explore the lake and be citizen scientists with us! We will look for clues in nature and use science tools to gather data. This information helps us determine the health of the park environment for all the critters.



Flip to the back to find
out how to become a
Citizen Scientist!



West Side

What are the humidity and water & air temperatures here?

Are they different than from your measurements at the bridge?

Think about why it would be different. Is there sun, shade, fresh stream water, slow moving water?

Water: _____ °F

Air: _____ °F

Humidity: _____ %



Canopy Cover

The canopy is made up of the leaves and branches of trees that block your view of the sky. By measuring canopy density, we learn how differences in sunlight affect the ecosystem.

Look up! Roll your brochure into a tube and look through. Which of these pictures looks most like what you see?

☐ 50%



☐ 25%



☐ 10%



Tree Rings

Trees grow from the inside out and get wider and taller each year. You can measure the age of a tree by counting its rings.

How old was this tree?

_____ Years Old

Compare the diameter of this stump to the size of a living tree of the same species (pine).

Guess the age of the living tree!



East Side

Take a few minutes to look for wildlife near the bridge. You might find fish, turtles, snakes, butterflies, or birds nearby. If they are out, perhaps they like the temperature today! Stop here to measure humidity, and water & air temperature:

Water: _____ °F

Air: _____ °F

Humidity: _____ %



pH (power of Hydrogen)

pH is a measure of hydrogen ion concentration. Low concentrations are acidic while high concentration are alkaline. A pH of '7' is considered balanced or neutral. A balanced pH level is very important for lake animals to live happy, healthy lives.

What is the pH of the lake?

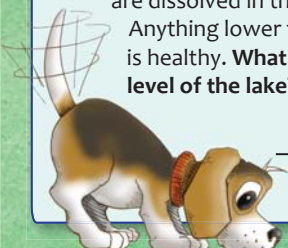
_____ pH

Water Quality

Water is great at dissolving things (think how much salt is dissolved in the ocean!). A water quality reading, measuring TDS (Total Dissolved Solids) shows how many particles are dissolved in the water.

Anything lower than 300 is healthy. What is the TDS level of the lake?

_____ TDS



Sit and Spy

A big part of being a scientist is making observations. Use your senses to spy on the lake ecosystem. What do you see? What do you hear? What do you smell?

Pretend you are Carl Sandburg and write a short poem based on your observations.

SEE:

HEAR:

SMELL:

TITLE: _____

Front Lake

Kids in Parks Kiosk

Information Station & Restrooms

Sandburg Citizen Science



Whatever the Weather

Knowing when the data was collected and what the weather was like during collection helps give your findings meaning.

Date: _____ Time: _____

Weather:



Remember to report your findings by registering on www.KidsInParks.com! Your data will help the park and you will earn free prizes!

