



EXPLORING YOUR ENVIRONMENT

Activities to learn about, map, and observe the natural world around you!

Produced by the Wisconsin Science Festival and the Illuminating Discovery Hub Kohler Fellows



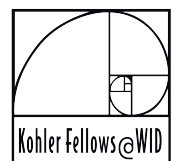
ABOUT THE KOHLER FELLOWS

Marie Christine Kohler Fellows at the Wisconsin Institute for Discovery are graduate or professional students in the arts and sciences. Kohler Fellows work and collaborate within WID, pairing an artist and scientist together to work creatively. The Kohler Fellows Program is supported by the Kohler Foundation, Inc. and the UW-Madison Graduate School.

Noelle Cataldo is a PhD candidate in the Wenthur Lab at the University of Wisconsin-Madison where she uses fluorescent microscopy to study how the brain changes. Before coming to Wisconsin, Noelle completed her undergraduate study at the University of Vermont, looking at the impact of chronic neuroendocrine stress on blood vessels in the brain. Although she spends most of her time doing science, Noelle also has a passion for the arts - in particular drawing and dancing. This has led her to become a Kohler Fellow at the Wisconsin Institute for Discovery, which combines both her skills in both art and science.

Anne Stoner is a sound artist and collaborative ethnographer whose work focuses on the intersections of identity and geography in both sonic and physical space. Anne holds an undergraduate MA(h) in Music from the University of Edinburgh, Edinburgh College of Art and an MA in Sound from Northwestern University. In 2023 she began working toward an MFA in 4D Studio Art, focusing in sound and time-based media, from the University of Wisconsin, Madison.

Check out more festival activities at WiSciFest.org/activities or visit WiSciFest.org/BioBlitz for more nature explorer details!



FLORA & FAUNA OF WISCONSIN

by Noelle Cataldo

Wisconsin is home to a diverse ecosystem of **prairies, savannas, temperate forests, boreal forests, wetlands, and grasslands**. Among these ecological landscapes live over **2000 plant species (flora)** and **600 vertebrate animal species (fauna)**. To preserve these natural features, it is important to be mindful of our native wildlife throughout everyday life. The first step towards conservation is to form a deeper understanding and appreciation of the outside world. This activity book will let you explore some of the unique wildlife biomes of Wisconsin and connect with your environment!

WHICH ECOSYSTEMS DO YOU
LIVE IN OR NEAR TO?

Prairies are made up of grasses, grass-like plants, flowering plants, and few trees. They come in many varieties including dry, wet, and mesic, or in between. In general, prairie plants are tall and narrow with deep root systems to survive in drier climates. Animals common in this ecosystem include prairie chickens, meadow voles, prairie ringneck snakes, bobolink birds, and 13-lined ground squirrels, while common plants include yellow coneflowers and wild bergamot.

WHAT PLANTS AND ANIMALS DO YOU SEE IN YOUR ENVIRONMENT?

Temperate Forests are found at mid-latitude regions, like Wisconsin. They have moderate temperature and precipitation, and mostly have trees such as oak, hickory, maple, and certain conifers (cone-bearing trees like pine). The forest floor is covered in decaying leaves that are perfect for providing nutrients for both plants and animals. Within this ecosystem, animals such as the white-tailed deer, black bear, salamanders, barred owl, and northern flying squirrel can be found.

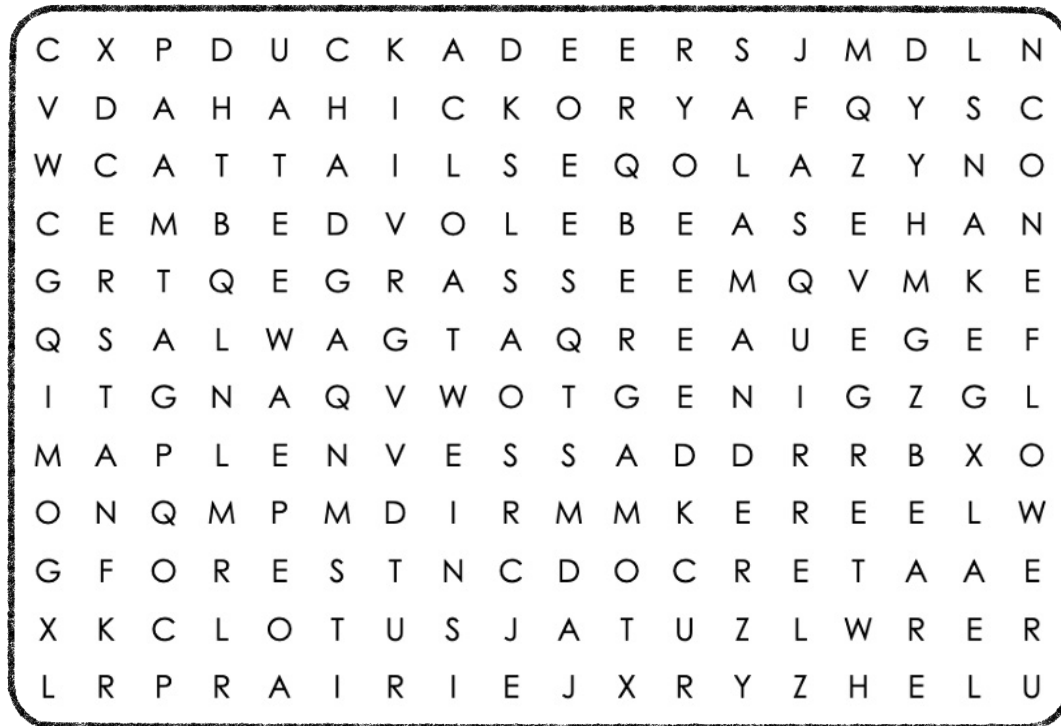
WHAT DO YOU LOVE ABOUT
WISCONSIN'S ECOSYSTEMS?

WHAT CAN YOU DO TO PROTECT THE NATURAL WORLD AROUND YOU?

Wetlands are areas where water stands for at least part of the year. Early explorers called Wisconsin "the great swamp" due to all the wetlands they encountered on their travels. Unfortunately, 50% of Wisconsin's wetlands have disappeared which is of concern due to their essential roles including the absorption of flood waters and filtration of drinking water. In wetlands, common flora includes common cattail, marsh marigold, and yellow lotus which all thrive near water. Wetland fauna includes red winged black birds, beavers, crayfish, wood ducks, great egrets, sandhill cranes, and great blue herons.

FLORA & FAUNA WORDSEARCH

Find the following words in the puzzle. Words are hidden →, ↓, ↘



Learn more about Wisconsin's diverse flora and fauna below



BEAR	CATTAIL	DEER	FOREST	LOTUS	SALAMANDER	
BEAVER	CONEFLOWER	DUCK	GRASS	MAPLE	SNAKE	VOLE
BERGAMOT	CRANE	EGRET	HICKORY	PRAIRIE	SQUIRREL	WETLAND

FLORA & FAUNA COLORING PAGE ACTIVITY

Identify the numbered plant and animal species on the coloring page (next page) using their description below.

___ **Beaver:** A semi-aquatic rodent with dark brown fur and a flat paddle-like tail. Known as the 'ecosystem engineers,' they build dams that block or redirect water flow to use as shelters, which in turn plays a strong role in natural flood control.

___ **Black Bear:** The second largest mammal in Wisconsin. Adult bears can be up to 70 inches long and 350 pounds. As a predator, black bears help to regulate populations of prey animals maintaining the ecosystem dynamic.

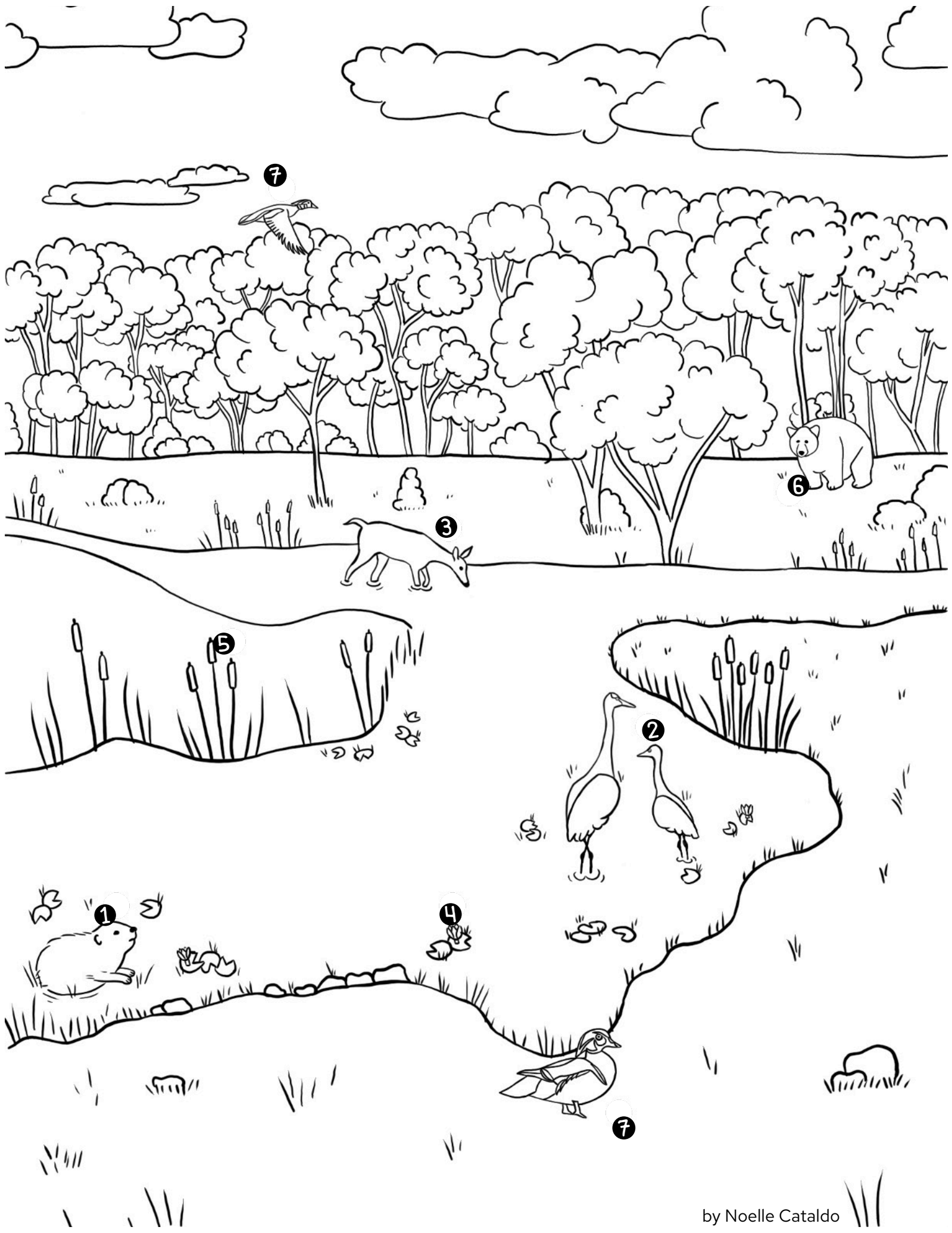
___ **Sandhill Crane:** A large, beige bird with black legs, white cheeks, and a red patch on its head. Their presence can be a positive indicator of wetland health, and they often help play a role in maintaining ecosystem balance.

___ **White-Tailed Deer:** A red-brown deer well known for the white underside of its tail which they raise when threatened. These animals influence both plant and predator communities and can contribute to nutrient cycling from their consumption of plant matter.

___ **Yellow Lotus:** An aquatic plant with large, circular leaves and yellow-white flowers. These plants can improve water quality through their expansive root system and provide shelter for various aquatic creatures such as fish, tadpoles, invertebrates, and other animals.

___ **Wood Duck:** The wood duck is known for its colorful appearance of blue, green, red, orange, brown, and white. While males display these vibrant colors, females are brown which provides camouflage from predators. Due to their plant-based diet, wood ducks play an essential role in seed dispersal promoting habitat health.

___ **Cattail:** The common cattail is a reed-like plant with a green stalk and brown, cylindrical flower head on top. Cattails act as natural water filters and can improve overall water quality by absorbing excess nutrients and pollutants while their dense root systems can help prevent shoreline erosion.



Wisconsin Science Festival BioBlitz Activity

Explorer Name: _____

Date: _____

A BioBlitz activity tries to measure as much life as possible within a defined space and time. Spend an afternoon counting all the insects at a local park. Take a stroll to count all the flowers nearby. **The goal is to explore living things that are all around you!**

An observation records information about your encounter with an individual organism at a particular time and location - this includes signs of organisms like tracks, nests, or things that just died. **Try to record at least 3 observations!**

Use this worksheet for your observation and use additional pages as needed for more. Use a phone or computer to download the **iNaturalist app** and log these observations under the Wisconsin Science Festival BioBlitz project. Project details can be found at wiscifest.org/BioBlitz!

Observation #: 1

Time: 10:42am

EXAMPLE

Location: Horicon Marsh

Description:

A bird swimming on the water with a yellow beak,
green head, brown chest, and mostly gray body.
Probably a mallard. There are other speckled brown
ducks nearby that might be female mallards!

Sketch:



Observation #: _____ Time: _____

Location: _____

Sketch:

Description:

Observation #: _____ Time: _____

Location: _____

Sketch:

Description:

Observation #: _____ Time: _____

Location: _____

Sketch:

Description:


STEP, STEP, & STEP AGAIN: MAPPING A CHOSEN PLACE

by Anne Stoner

What are some parts of a place that we don't usually put on a map? How do we include other details of a place such as smells, sounds, feelings, or experiences? How can we share these features with another person to help them see and appreciate the outdoor world the way we do?

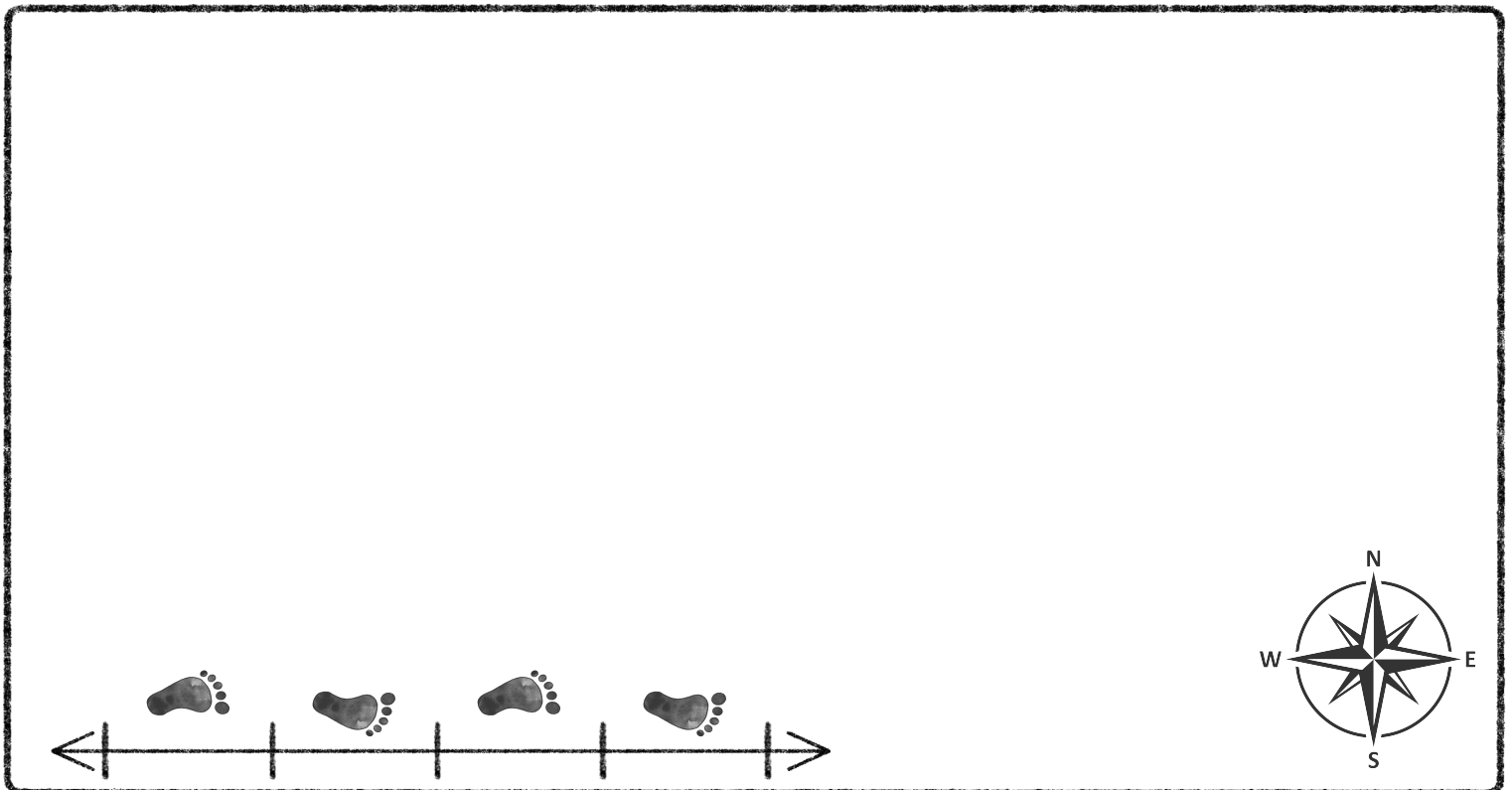
Think of a place or an environment in your life - it could be your backyard, your local park, your school playground, or anywhere outside that you like to be. Think about some of the non-physical features, or details, of this place: how does the ground feel when you step on it, what do the plants smell like and what colors are they, what sounds do you hear when you are in this space, what experiences have you had here? Write some of these below:

WHAT ARE THE SPECIAL DETAILS OF THIS PLACE IN YOUR LIFE?



Let's create our map!

Draw a map of the place you have in mind and include the special details you wrote above. Include the colors, the sounds, the smells, what you feel when you're there, and what you've experienced.



A large rectangular box for drawing a map. At the bottom left, there is a horizontal line with arrows at both ends, divided into four equal segments by vertical tick marks. Above each segment is a footprint icon, suggesting a path. At the bottom right, there is a compass rose with a star-like center and eight points. The cardinal directions are labeled: 'N' at the top, 'S' at the bottom, 'E' on the right, and 'W' on the left.