



Natural Bridge State Park

Junior Ranger

HANDBOOK

COMPLETE
ACTIVITIES!

EARN
YOUR BADGE!



**VIRGINIA
STATE PARKS**



Milkweed

Great Spangled Fritillary

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What it means to be a **JUNIOR RANGER**

As a Junior Ranger, you are a steward of the park. This means you do your best to care for the park and keep it safe and wild. One way to do this is by following the seven principles of Leave No Trace.



LEAVE NO TRACE PRINCIPLES

1. ➔ Plan ahead and prepare
2. ➔ Travel and camp on a durable surface
3. ➔ Dispose of waste properly
4. ➔ Leave what you find
5. ➔ Minimize campfire impact
6. ➔ Respect wildlife
7. ➔ Be considerate of other visitors

How to Become a Natural Bridge Junior Ranger!

To become a Natural Bridge Junior Ranger you must complete the activities in this booklet best suited for you while respecting the park and wildlife within.

(Remember to Leave No Trace!)

For ages 4-7

Complete 8 activities



For ages 8+

Complete 10 activities



After you've completed your chosen activities, show a ranger and earn your Junior Ranger Badge!

Natural Bridge State Park is proud to welcome you, our newest Junior Ranger!



This Junior Ranger booklet belongs to....

Name: _____

I am _____ years old!

I visited Natural Bridge State Park on: _____
Day, Month, Year

I came to the park with my: _____

We are visiting from: _____
State

This is my first time at Natural Bridge
State Park! (circle one)

YES

NO



WILDLIFE

Safety



Why is it important?

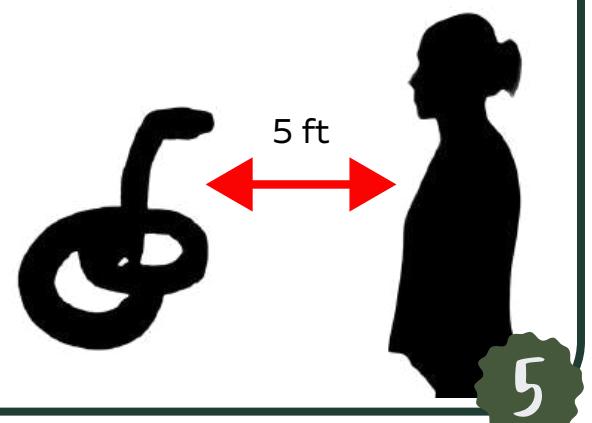
Animals that live in the wild rely on their instincts to survive. Interacting with humans can cause them harm, whether we mean to or not.

Be Responsible and Respectful of Wildlife

Do NOT Touch

Do NOT Feed

Keep Your Distance



Hike Cedar Creek Trail

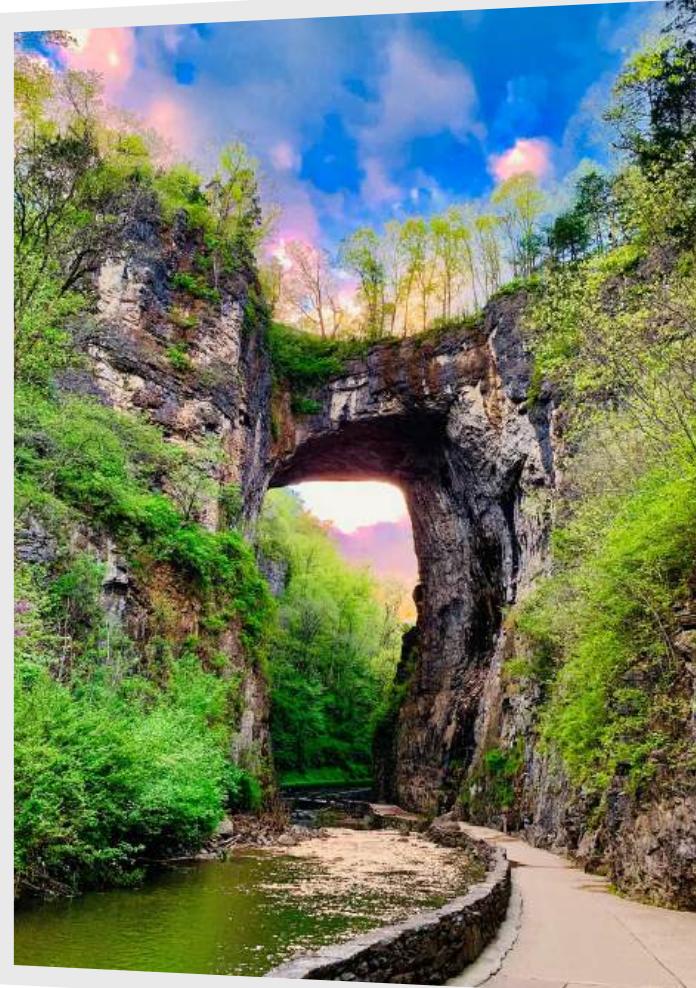
Hike the trail and complete these stops and activities along the way!

► Hike Cedar Creek Trail!

► Stop at Saltpeter Cave and take a peek inside!

► Stop at the Lost River and listen for the water!

Draw a plant you saw along Cedar Creek Trail



Draw an animal you saw along Cedar Creek Trail

Bonus: Draw the Blue Ridge Mountains

NATURAL BRIDGE

Scavenger Hunt

FIND A RANGER AND ASK
THEM A QUESTION

FIND AN ARBOR VITAE
(NORTHERN WHITE CEDAR)

SPOT A FISH IN CEDAR CREEK

FIND A NAME CARVED UNDER
THE BRIDGE

BONUS: SPOT A SNAKE



Family Fun

ASK YOUR FAMILY AND FRIENDS AND SHARE
YOUR ANSWERS!



WHAT KIND OF ANIMALS DO YOU
THINK LIVE IN THE PARK?



WHERE WOULD THEY
BE FOUND (WHAT HABITAT)?



WHY DO YOU THINK THIS ANIMAL
WOULD LIVE HERE?



CAVE Critters

Many different critters call caves home. What we call them depends on how much time they spend inside the cave.

Organisms that like to come and go from a cave are called **trogloxenes** (trog-lo-zeens) or "cave-guests". These are organisms like birds, bats, and mice.

Organisms that can leave the cave but choose not to are called **troglophiles** (trog-lo-files) or "cave-lovers". These are organisms like some salamanders, and spiders that choose to live their whole life inside the cave.

Organisms that live deep inside of caves and spend their whole lives in the dark away from sunlight are called **troglobites** (trog-lo-bite) or "cave-dwellers". These include certain types of beetles, spiders, and isopods that have adapted to live in the darkness.



DRAW A LINE AND MATCH THE ANIMAL TO THE TERM



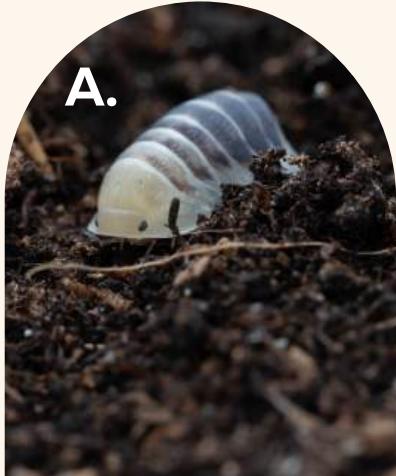
TROGLOPHILE
"CAVE-LOVER"

TROGLOBITE
"CAVE-DWELLER"

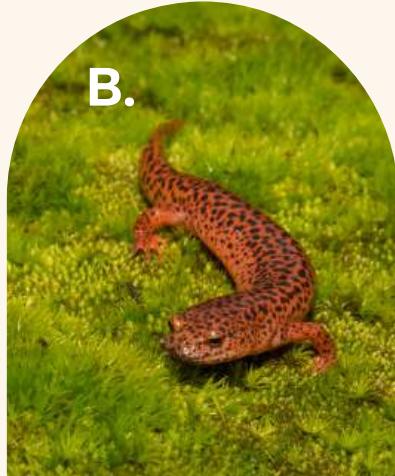
TROGLOXENE
"CAVE-GUEST"



SALTPETER CAVE ALONG
CEDAR CREEK TRAIL



A.



B.



C.

Fantastic Food Webs

Food webs are made up of all the food chains in an ecosystem. But what is a food chain? When animals eat plants or other animals, energy is moved between those organisms (another word for plants and animals).

A food chain is the path this energy takes, sent from one organism to another. All food chains start with **producers** that make their own food, like plants. **Primary consumers** (like cows, deer, and mice) are animals that eat producers. **Secondary consumers** (like snakes and frogs) eat primary consumers, and **tertiary consumers** (like owls, foxes, and cats) are animals that eat secondary consumers. Lastly, **decomposers** (like mushrooms and bacteria) break down all the organic waste from plants and animals.

Natural Bridge State Park is home to many animals, creating lots of food chains. For this activity, write the type of consumer or producer under the organism's box, to complete a Cedar Creek food chain!

Word Bank:

Decomposer, Producer, Secondary Consumer, Primary Consumer



ALGAE

BLUE
HEADED
CHUB

Primary Consumer

INKCAP
MUSHROOMNORTHERN
WATERSNAKE

General store at Children's Discovery Area



Nature Explore Area



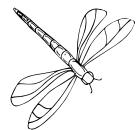
Draw an animal you saw along Skyline Trail (or CDA)



Draw a plant you saw on Skyline Trail (or CDA)



Explore Children's Discovery Area + Skyline Trail

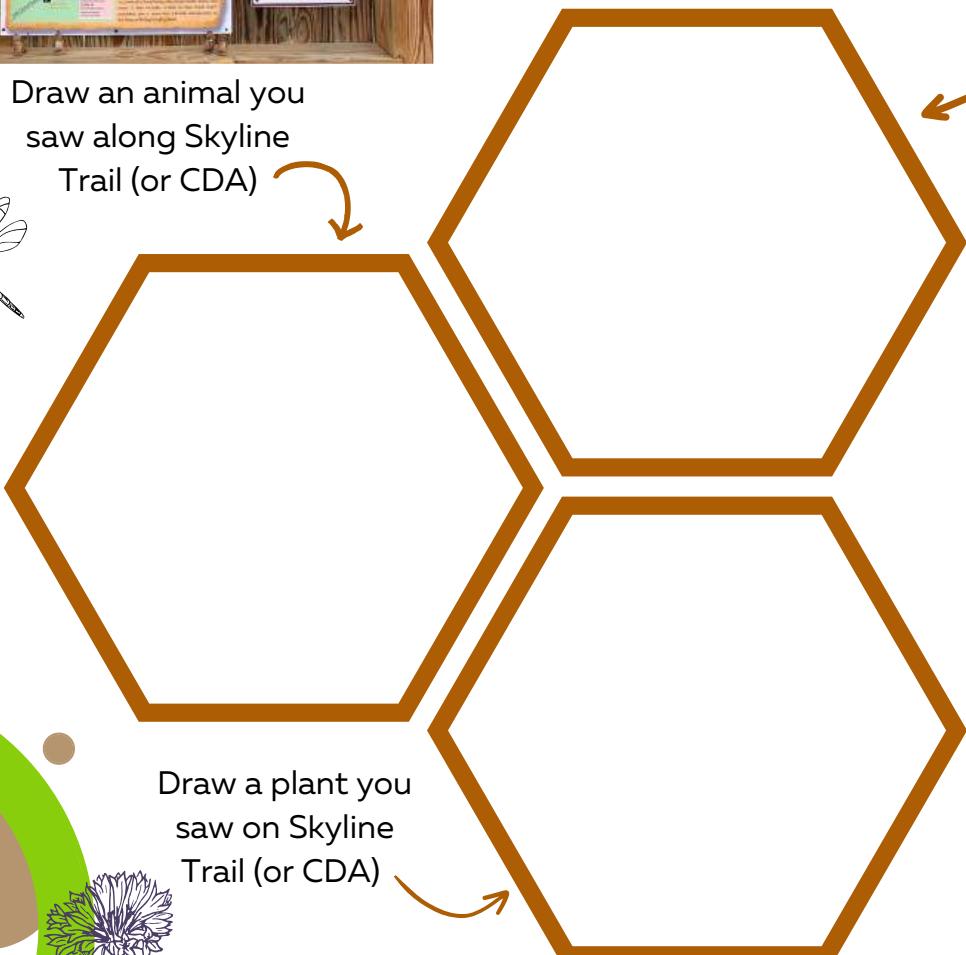


Explore the trail and complete the activities along the way!

- ➡ Explore Children's Discovery Area (CDA)!
- ➡ Find the music area and create a tune!
- ➡ Find the sandbox and create something new!

Bonus : How many bluebird boxes are along Skyline Trail? _____

Draw your favorite part of the Children's Discovery Area



Overlook on Skyline Trail

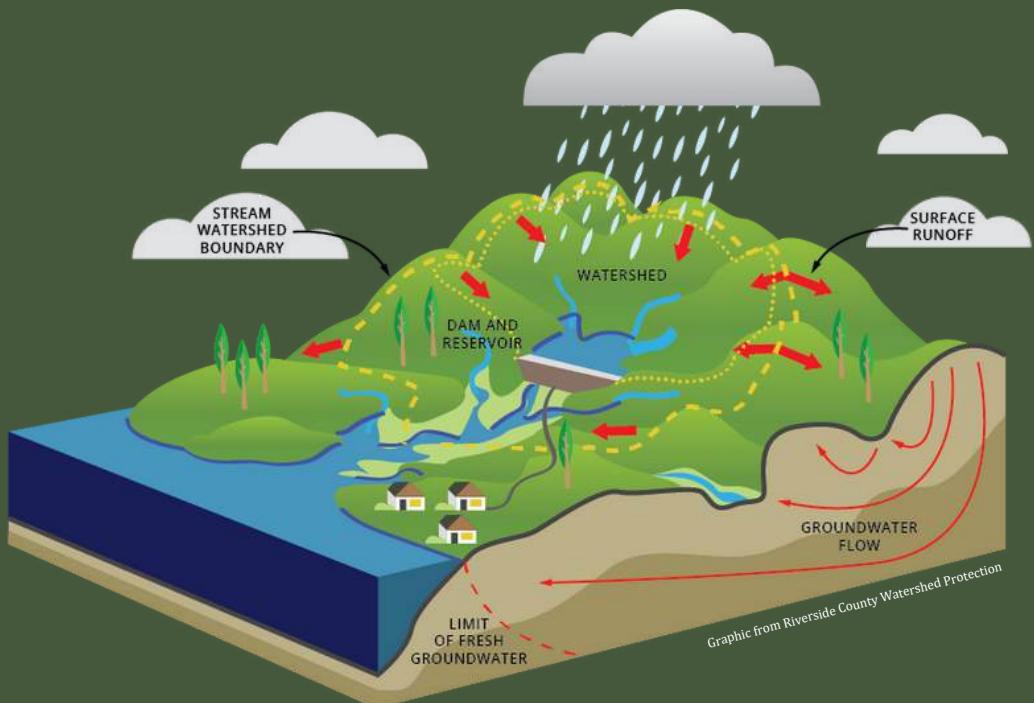


WHAT'S A WATERSHED?

A watershed is an area of land that "sheds" water to a specific body of water. When it rains, water flows into a stream, which connects to a river, which can connect to an even bigger body of water, such as the ocean!

Natural Bridge State Park is a part of the Chesapeake Bay watershed. Streams like the Lost River pour into Cedar Creek, and flow right under the bridge and into the James River. The James River then flows all the way to the Chesapeake Bay! Which watershed do you live in?

Pollution that enters the water here can end up over 188 miles away in the Chesapeake Bay. Keeping our waterways clean is important because what we do here can affect life on the other side of the watershed. Since Cedar Creek is located within our state park, it is our responsibility to make sure we aren't sending pollution down the watershed. What are some steps you can take at home to keep your watershed clean?



Start here at Lace Falls!

ACTIVITY 7

TRACE THE CHESAPEAKE
BAY WATERSHED FROM
CEDAR CREEK ALL THE WAY
TO THE CHESAPEAKE BAY!



End your watershed at the Chesapeake Bay!

Critter Crossword

Complete the crossword using the critters of Cedar Creek!

Down

- I am a fish that lives in Cedar Creek with "rainbow" scales
- I am a sunbathing, slithering reptile that likes to hang out along Cedar Creek Trail
- I am an icky arachnid that likes to munch on my neighbors

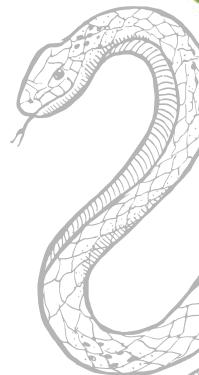
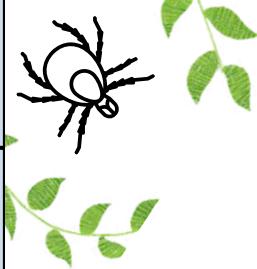
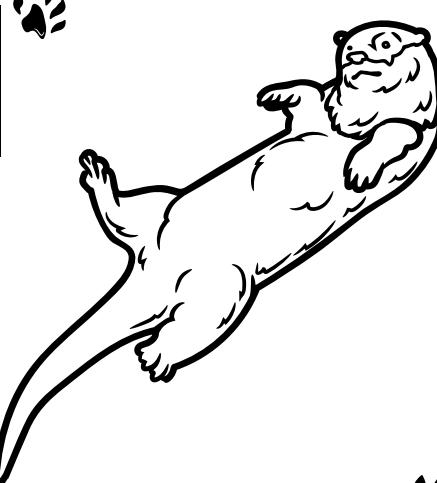
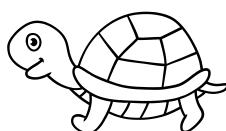
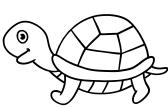
Across

- I carry my home with me and hide inside when I see trouble
- I am a furry resident of Cedar Creek that swims upstream with my long tail to munch on tasty fish
- Some people confuse me for a slug, but I have a shell to cuddle up in during hot days

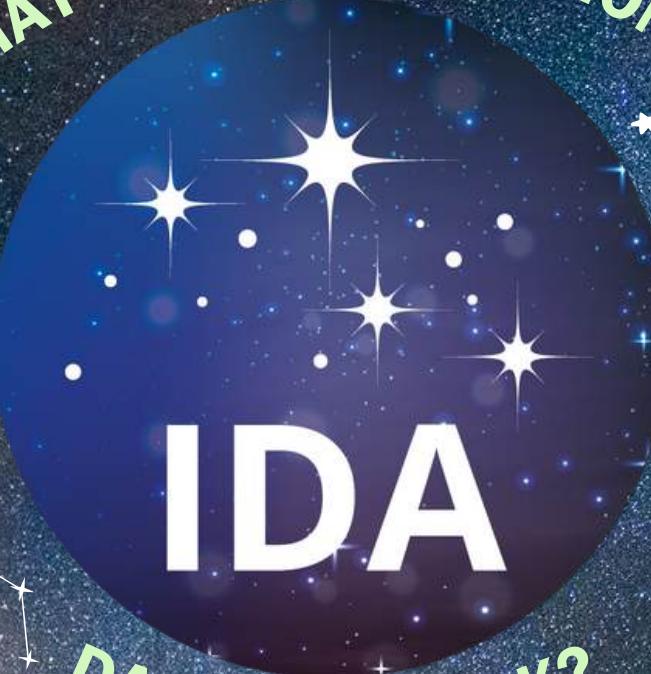
Word Bank

Snake	Turtle
Otter	Snail
Trout	Tick

1.						e
2.	o		3.			
			i			



WHAT IS AN INTERNATIONAL



IDA

DARK SKY PARK?



An International Dark Sky Park is an area with little to no light pollution. Dark Sky Parks focus on conserving a natural resource we often take for granted -- the dark!

Light pollution is when man-made light is misused or overused at night. Light from these sources outshine the stars in our night sky, meaning we sometimes only see 200 stars...out of the over 9,000 that are in our night sky!

You can help limit light pollution at home by turning off unnecessary lights outdoors and putting shades on lights that need to be on. These are things that we've done at the park to make sure we're not using excessive light!

We have lots of Dark Sky guided programs, so be sure to check our website to see if you can visit the park after dark!

What's That Light?

Out of the photos below, determine which is natural light and which is artificial light (or light made by humans).

Check off your answer!

Hint: the moon reflects light from the sun!



Photo by NASA HQ Photo, flickr

Natural light

Artificial light

Natural light

Artificial light



Photo by Léna, Wikimedia Commons

Natural light

Artificial light

Photo by Sendurapriya Anbu, Wikimedia Commons

What Is Light Pollution?

According to DarkSky.org, there are four types of light pollution:



Glare – excessive brightness that causes visual discomfort

Sky Glow – brightening of the night sky over inhabited areas

Light Trespass – light falling where it is not intended or needed

Clutter – bright, confusing, and excessive groupings of light sources

Take a look at the photos below and label each with what type of light pollution you believe the picture is representing.



A

Photo from EcoCentricNow



B

Photo by jpstanley, flickr

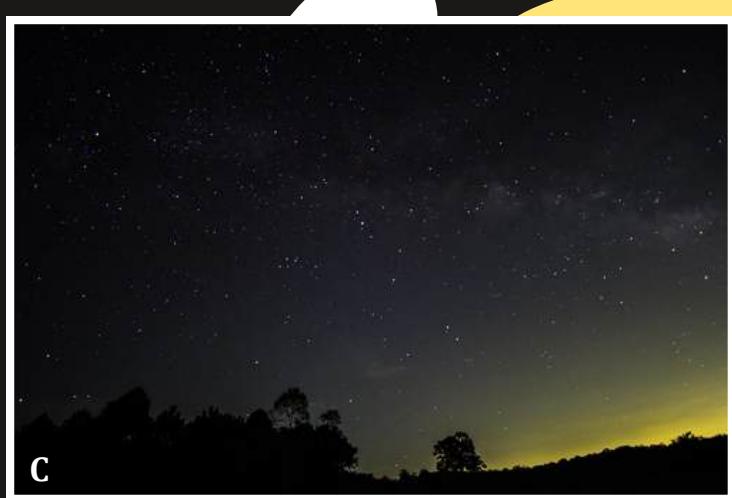
Word Bank:

Glare

Sky Glow

Light Trespass

Clutter



C

Photo by Stephen Rahn, flickr



D

Photo from James Lowenthal

L

T

TAKE
HOME
ACTIVITY

MAKE YOUR OWN



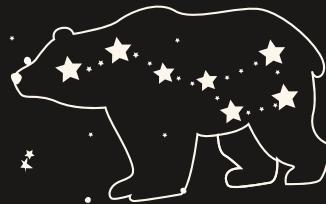
PLANETARIUM!



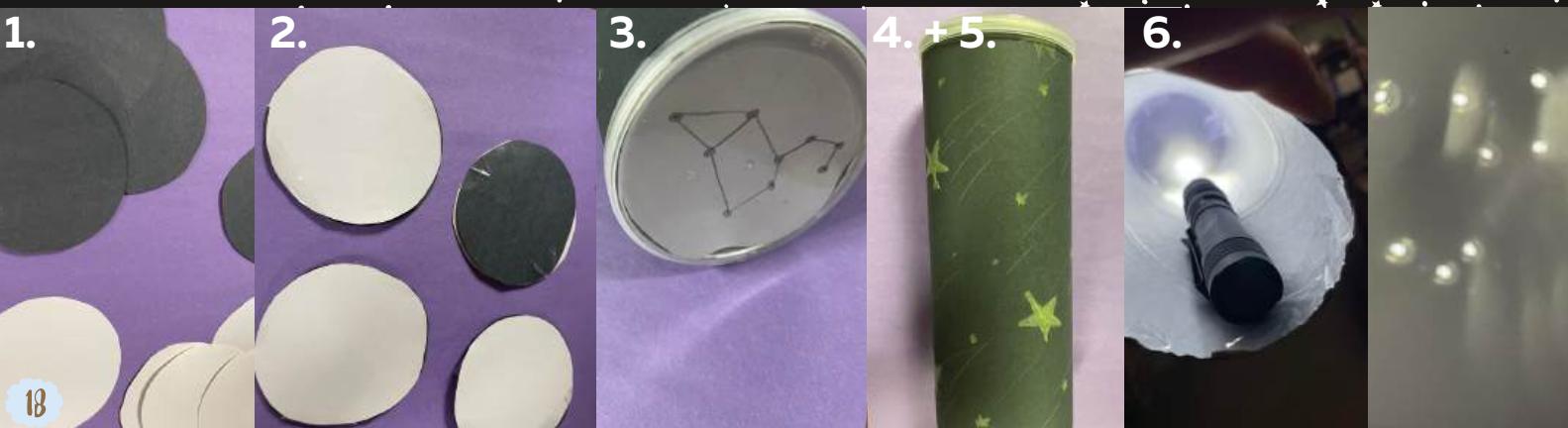
A planetarium is a place where you can look at the stars and see the night sky without having a telescope. You can make your very own planetarium at home!

All you need is:

- an empty cylinder can with a lid (like some chip cans)
- white paper
- black paper
- scissors
- a pencil
- a flashlight
- a nail
- tape or glue



1. First, cut out circles the size of the can's lid using the white and black paper.
2. Then, tape or glue the white circles onto the black circles.
3. On the white circles, draw your constellations. You can use constellations like the Big Dipper, Orion, or Andromeda. Or, you can create your own! You want to put a dot using a pencil for your stars and connect them with lines. Then, with parental supervision, use the nail to punch out the dots for the stars.
4. Carefully cut off an inch or two off the bottom of the can, so the end is open (you can have your parent or guardian do this). Or if you are able, pop out the bottom. Now you are almost done!
5. You can decorate your can by wrapping it in paper if you choose, otherwise go ahead and pick one of your constellation circles and put it in the lid, and back on top of the can.
6. Now stick your flashlight in the open end of the can and shine it through! Make sure you are in a dark room so you can enjoy your constellations with your very own planetarium!



Match My Tracks



OTTER



DEER



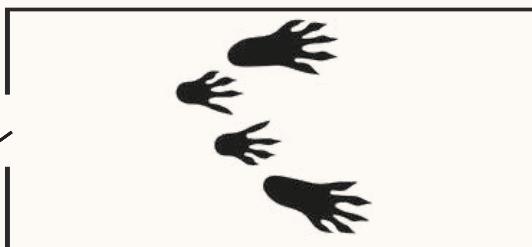
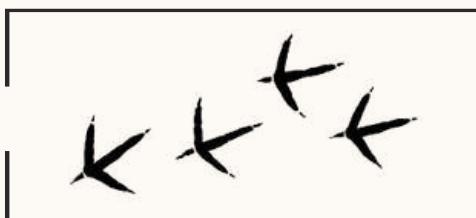
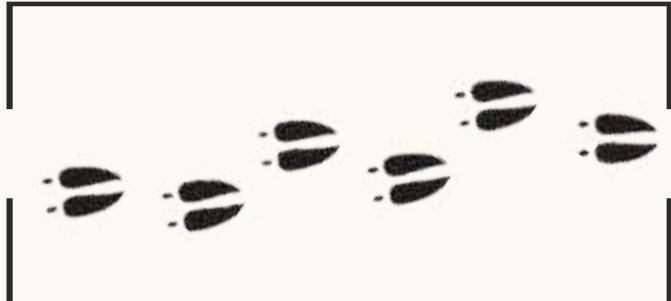
BEAR



CARDINAL



RACCOON



DRAW A LINE AND CONNECT THE TRACKS TO THE ANIMAL!

Who Lives Where?

Every animal lives inside a habitat. A habitat is a plant or animal's home and contains everything they need to live. But not all animals have the same habitat!

Let's take a look at fish and deer. They have two very different habitats. Fish live in **aquatic** (or **water**) habitats while deer have **terrestrial** (or **land**) habitats. Here in Natural Bridge State Park there are many different habitats for the creatures within our park.

We have freshwater habitats within Cedar Creek, temperate forest habitats along Cedar Creek Trail, and even a special cave habitat in Salt Peter Cave! Some species live in habitats that contain both land and water, like our river otters.

Draw a line and
connect the habitat to
the animal!



CRAYFISH



CAVE



SALAMANDER



FRESHWATER CREEK



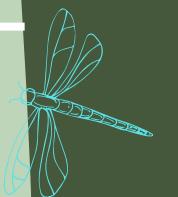
GRAY SQUIRREL



TEMPERATE FOREST

PLANTS I SAW

ANIMALS I SAW



Handwriting practice lines for the title "ANIMALS I SAW".

DATE:

NAME:

SHOW A CONTACT RANGER YOUR COMPLETED ACTIVITIES, THEN TEAR OUT THIS PAGE AND GIVE IT TO A CONTACT RANGER TO COLLECT YOUR JUNIOR RANGER BADGE!

DATE:

RANGER SIGNATURE:



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With help from Isaac Fairchilds, Summer Holiday, Kenny Horowitz,
Katherine Wirtanen, and Rose Marie Camper

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Junior Ranger Oath

I, (your name), promise to protect and preserve our parks and respect the nature and wildlife within. I promise to follow the principles of Leave No Trace. I promise to listen to park rules to ensure my safety and the safety of those around me. I promise to continue to explore and protect nature and the outdoors.