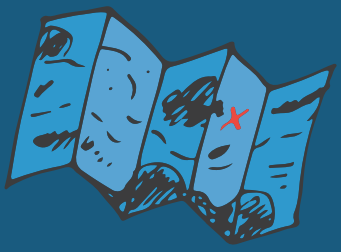


Junior Park Ranger

Adventure GUIDE

this guide belongs to:

Dear Future Junior Ranger,

Congratulations!

Just by opening this book, you have completed the first step in your journey towards becoming an **official Junior Ranger.** You can exchange the completed booklet for a badge at any park ranger event throughout the year. If you can't attend an event, please email us at **parkrangers@pittsburghpa.gov** and we will arrange pick up of your badge. There is no time limit to complete this book, it is all about having fun in Pittsburgh's parks when it is convenient for you and your family. Park lovers of any age can participate and become Junior Rangers by completing this program. We hope that you enjoy completing this booklet and remember that the best part about becoming a Junior Ranger is exploring the wonders of Pittsburgh's many green spaces and getting more involved in the protection and appreciation of our cities' natural landscape.

Parent or guardian initials

- [ ] Plants _____
- [ ] Food Web _____
- [ ] Astronomy _____
- [ ] Geology _____
- [ ] Air _____
- [ ] Water _____
- [ ] Animals _____
- [ ] Recycling _____

you are now
a Junior Park
Ranger!

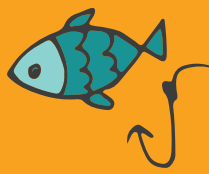
All about YOU

My Name:

Age:

Favorite Animal?

What are your favorite Pittsburgh Parks?



What are 3 activities you enjoy doing outside?

What motivates you to become a Junior Ranger?

born to be
WILD

Safety

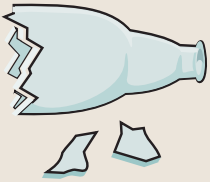
Things to bring with you:

- [ ] Water
- [ ] Extra Food
- [ ] Map/GPS
- [ ] Camera

Things to watch out for:

Wild Animals

Ticks



Broken Glass

Poison Ivy

REMEMBER **ALWAYS** let someone know where you are going!

Leave No Trace

1 Know before you go

Let someone know where you are going and when you expect to return. Always know where to go for help.

2 Trash your trash

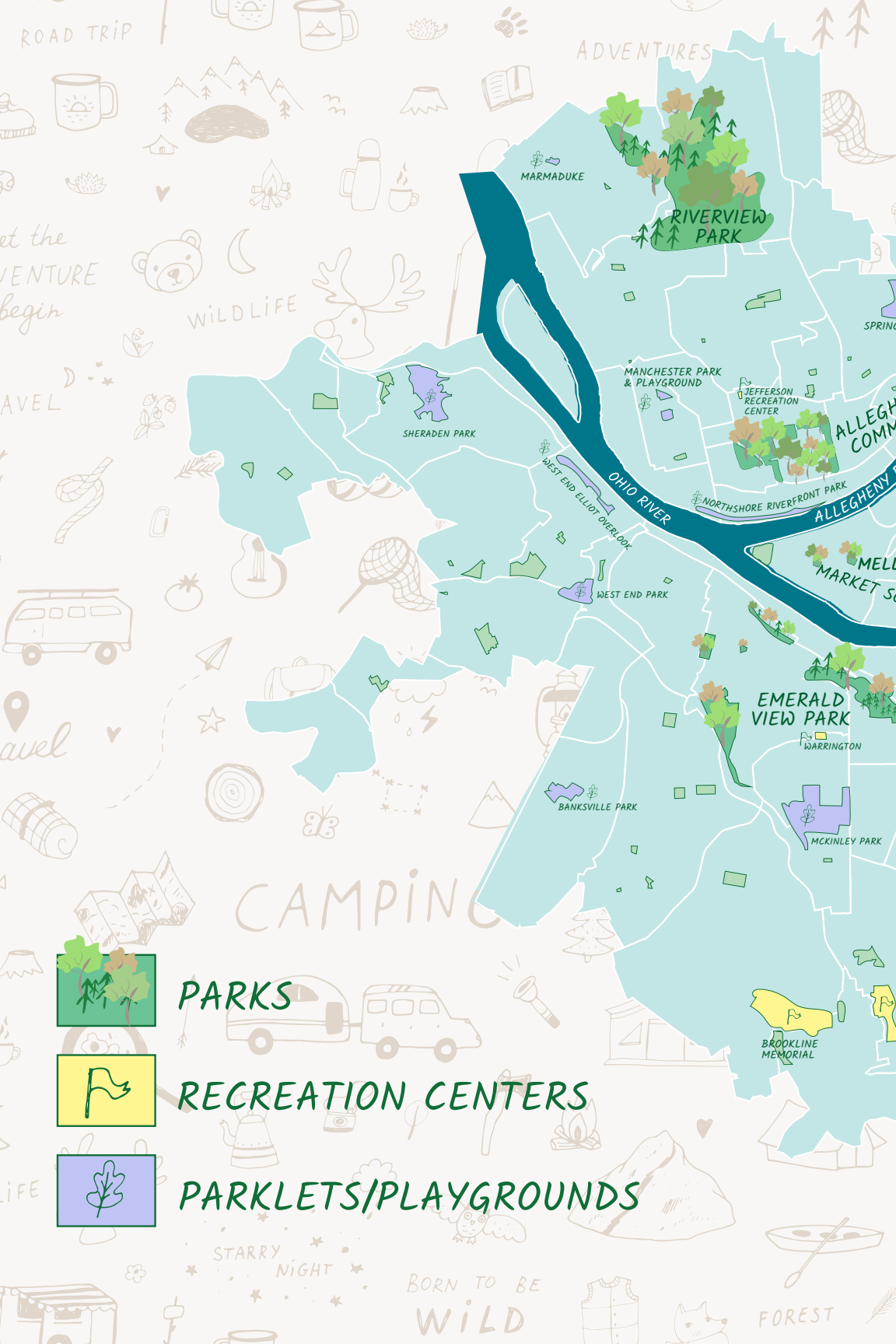
Pack it in, pack it out.

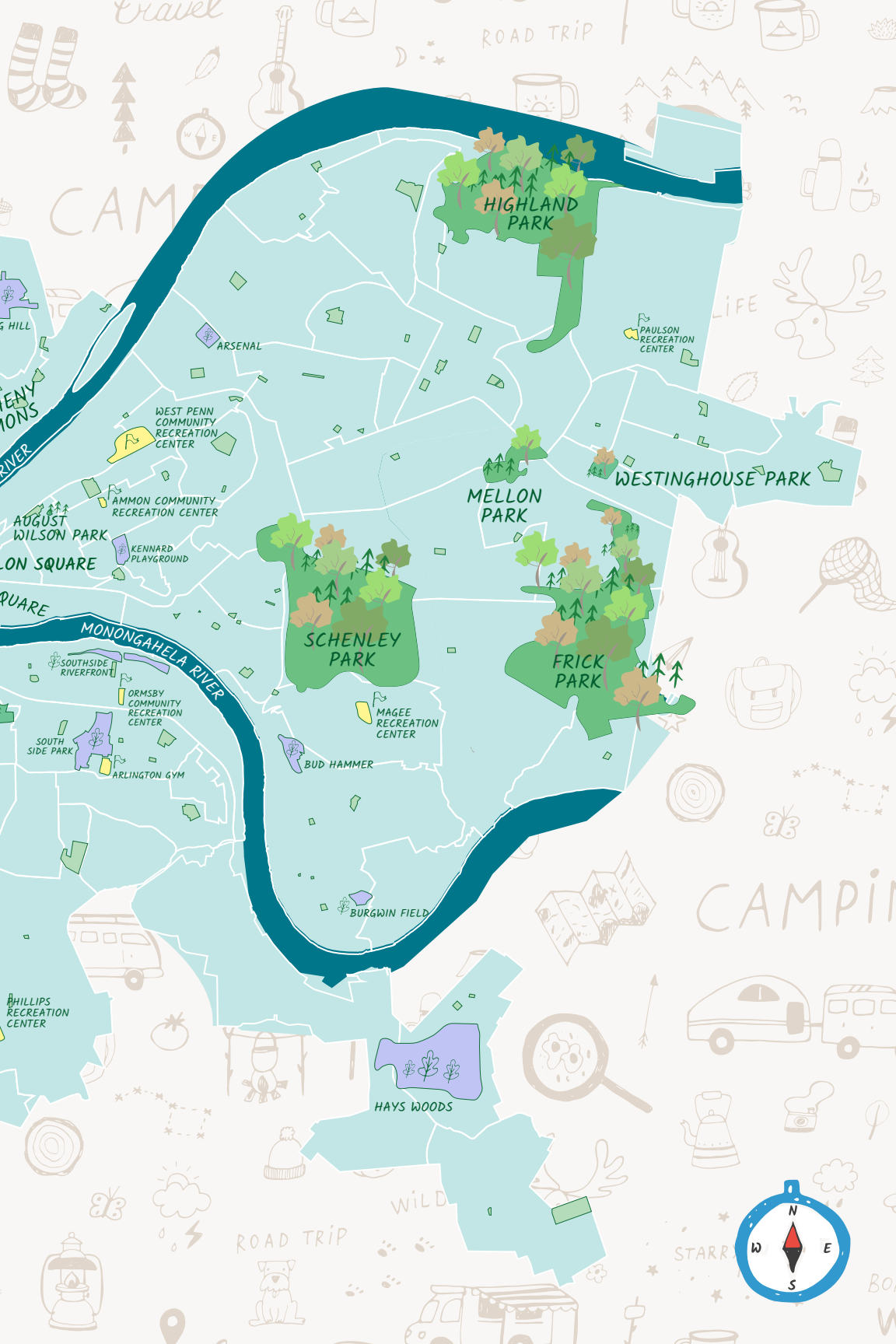
3 Leave what you find

Take only pictures, leave only footprints.

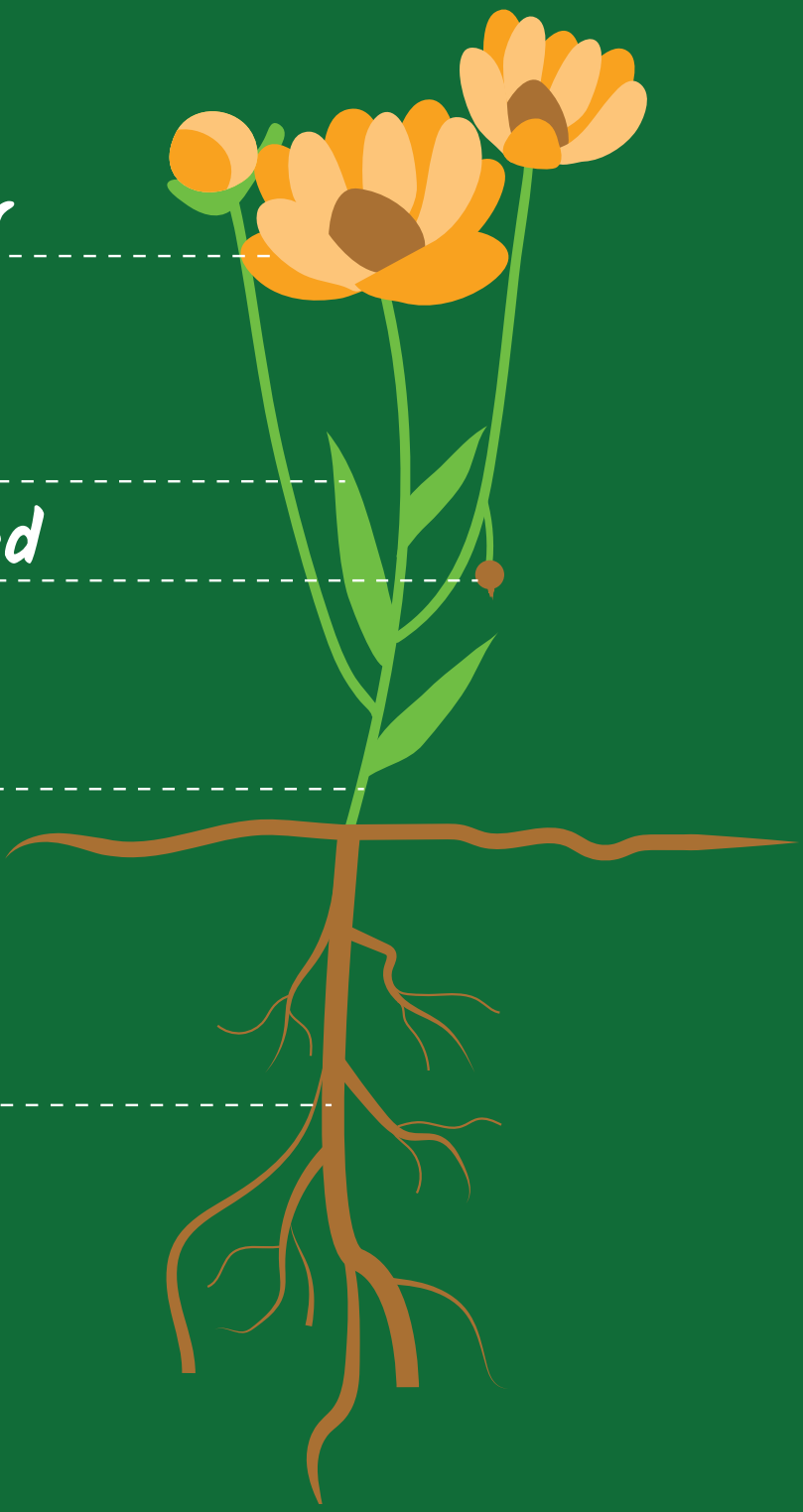
4 Respect wildlife, visitors, and plants

Be considerate and conscious of your surroundings.


MARMADUKE
RIVERVIEW PARK
MANCHESTER PARK & PLAYGROUND
JEFFERSON RECREATION CENTER
SHERADEN PARK
WEST END ELLIOT OVERLOOK
OHIO RIVER
NORTHSHORE RIVERFRONT PARK
ALLEGHENY
WEST END PARK
EMERALD VIEW PARK
WARRINGTON
BANKSVILLE PARK
MCKINLEY PARK
BROOKLINE MEMORIAL
PARKS
RECREATION CENTERS
PARKLETS/PLAYGROUNDS


HIGHLAND PARK
ARSENAL
PAULSON RECREATION CENTER
WEST PENN COMMUNITY RECREATION CENTER
AMMON COMMUNITY RECREATION CENTER
AUGUST WILSON PARK
KENNARD PLAYGROUND
MELLON PARK
WESTINGHOUSE PARK
SCHENLEY PARK
FRICK PARK
MONONGAHELA RIVER
SOUTHSIDE RIVERFRONT
ORMSBY COMMUNITY RECREATION CENTER
SOUTH SIDE PARK
ARLINGTON GYM
MAGEE RECREATION CENTER
BUD HAMMER
BURGWIN FIELD
PHILLIPS RECREATION CENTER
HAYS WOODS
N
W
E
S

Plants and Flowers



Match the plant parts with the biological functions they perform.

attracts bugs & pollinators

absorbs light for photosynthesis

provides structure & support

absorbs water

ensures future plants

Draw your favorite plant you see outside today:

Invasive Plants

An "invasive species" is defined as a species that is non-native (or alien) to the ecosystem. These plants can often crowd out native plants and wreak havoc on an ecosystem.

Acer Ginnala (Amur Maple)

Acer Rubrum (Red Maple)

Tree of Heaven

Staghorn Sumac

Garlic Mustard

Saxifrage

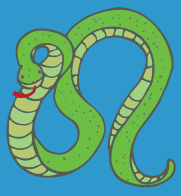
What's different between the two plants?
What is the same?

Food Web

In an ecosystem, plants and animals all rely on each other to live. This dependence is called the food web.

Grasshopper
primary consumer

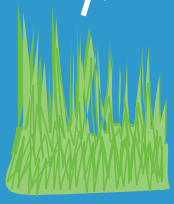
Bluebird
secondary consumer



Snake
tertiary consumer

Owl
apex predator

Mushroom
decomposer



Grass
producer

Producer *– an organism that uses sunlight to make its own food for energy*

Consumer *– an organism that gets energy from eating other organisms*

Decomposer *– an organism that gets energy from eating dead organisms, non living materials or waste.*

Herbivore *– An Animal that gets its energy by eating only plants*

Carnivore *– An animal that gets its energy by eating other animals*

Make Your Own Food Web

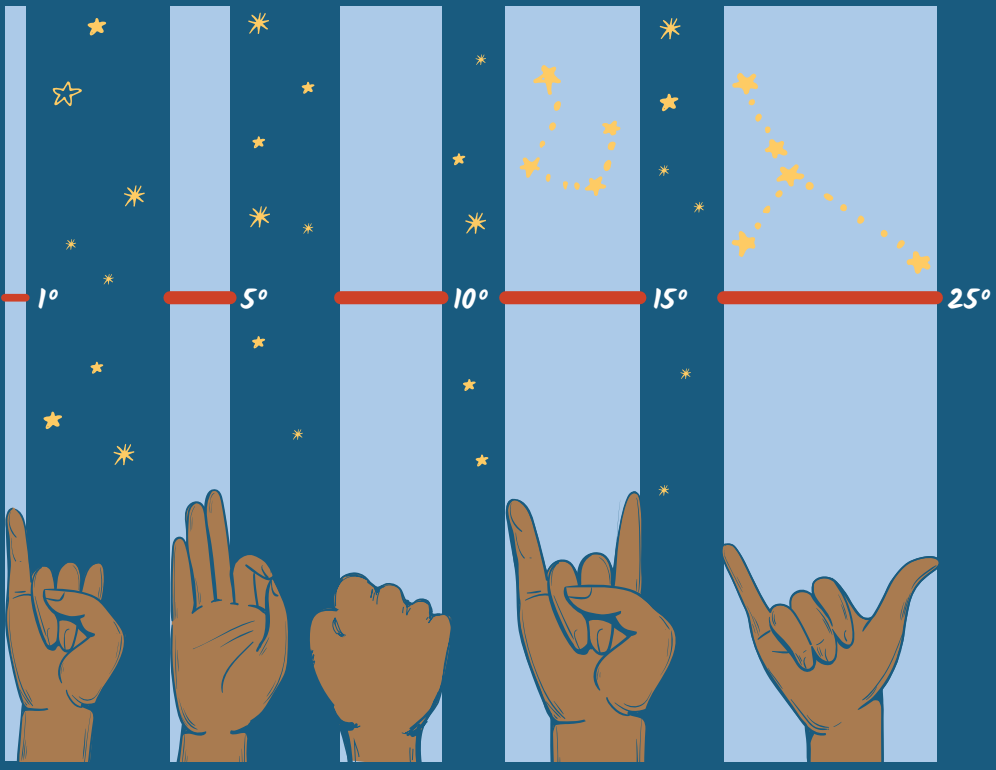
Go out into your local park, list the plants and animals you see, and create your own food web.

Food Web

let the ADVENTURE begin

Celestial Guidance

For hundreds of years, explorers have measured objects in the sky to help guide them. You can make an accurate map of the night sky with simple tools you use every day: your hands!



Head to your favorite park at dusk and find a clear view of the sky. Stand with the sun setting to your left and your dominant hand raised in front of you at arm's length. Tilt your head onto the shoulder of your raised hand and close one of your eyes. The chart above shows you the apparent separation between stars in degrees!

In the circle below, draw a dot to represent the locations of the 3 brightest stars that you can see. The center of the circle is the zenith, or directly overhead. Next, use your new angle measuring techniques and measure the distance between each of the 3 stars. Draw a line between the dots and write down your measurement in degrees!

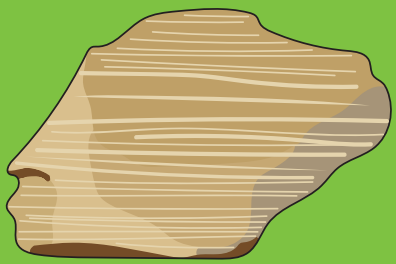
EXPLORE

Geology Rocks

The three most common types of rocks in Pittsburgh are: sandstone, shale and limestone. See pictures below:

Sandstone

A sedimentary rock that consists of quartz and sand. It forms at the bottom of a huge body of water and becomes united through pressure over a long period of time!



Shale

A fissile rock that is formed by the consolidation of clay and mud. 70% of the earth is covered in Shale!

Limestone

A rock that is formed by organic remains such as shells or coral. Chalk is a type of limestone. When you are writing on a chalkboard, you are leaving behind markings of countless microscopic calcium carbonate secreting beings!

Rolling for Rocks

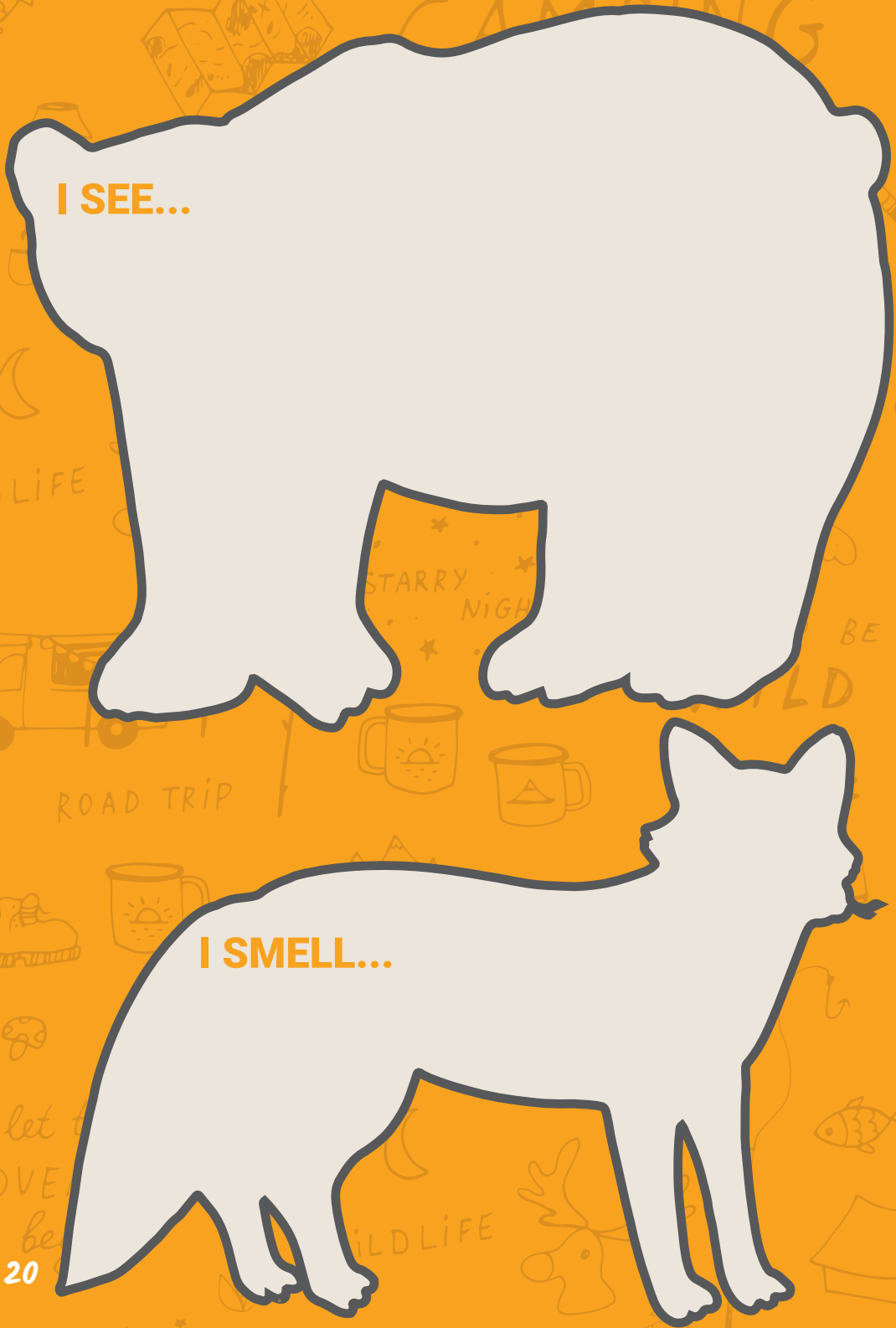
For this activity, visit your favorite city park and collect three interesting rocks and describe them below. What do they look like? How do they feel? Do they match those listed in the previous page?

1.

2.

3.

Nature

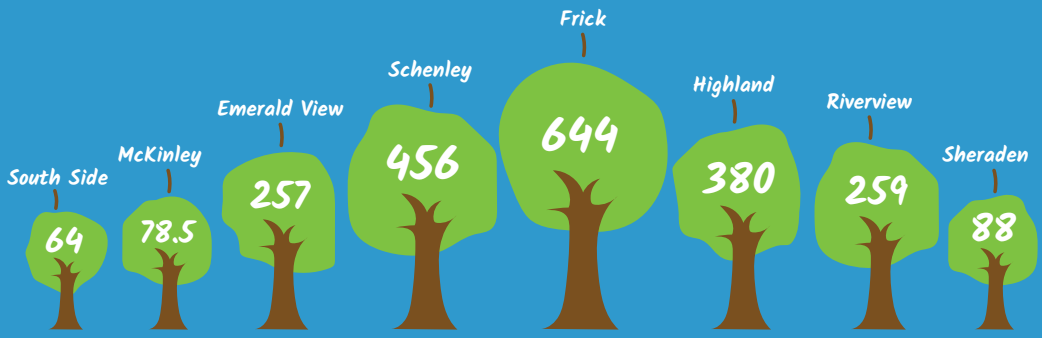


Break

Air & Trees

Trees help us in so many ways. Use this activity to figure out the exact amount of pollution removed and money saved by trees in your park each year.

Every acre of trees removes 80 pounds of pollutants from the air year per year. This equals approximately $300 worth of pollution mitigation per acre. See below for acreage of city parks. Is your favorite listed? Do some research to find out how many acres your favorite green space is!



parks by acreage

Mitigate:
To make less harmful/severe

Do the Math!

Using what you learned about the positive impacts park trees have on air quality and the acreage of your favorite park, calculate the positive impact your park has on the air quality below!

80lbs x___ Acres = _____ pounds removed per year

$300 x___ Acres = _____ dollars saved per year

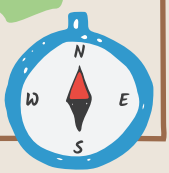
Spot the Differences

Brainstorm 5 ways to reduce pollution

Design a Park

Using what you've learned about the positive impact of parks on communities, it's time for you to design your own park. Green spaces are used by different people with different interests, so remember to include natural features as well as man-made recreational opportunities to serve all the people of Pittsburgh!

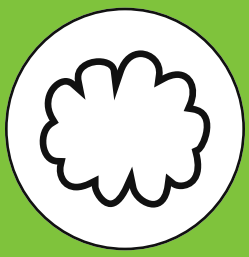
name your park

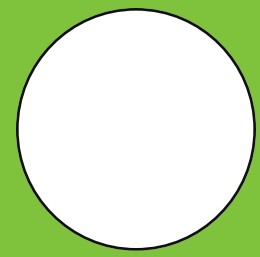


WATER

The Earth is HUGE! There is a lot of land, but even more water! 75% of the earth is water a nd only 2.5% is safe to drink!

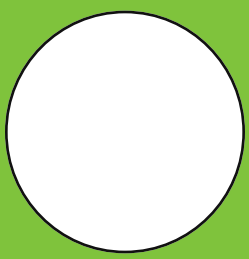
How can you CONSERVE water?!





The Water Cycle illustrates how water moves through the environment.

Can you help complete the raindrops journey back to the cloud?



Be a Park Scientist

Scientists use research and observation to learn about the natural phenomena that populates our world. In this activity, go to your favorite park and choose a flower, animal, tree or insect and use research and observation to learn something new.

Topic:

What do you want to learn more about it?

Make an educated guess about what you think is the answer to this question (Hypothesis!)

Where are some places where you could learn more?

Research notes

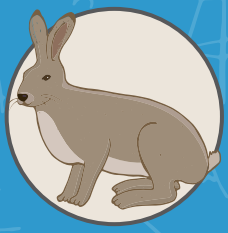
Results

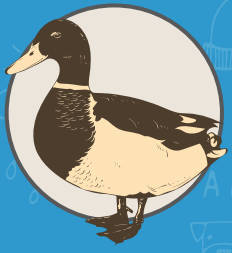
Now that you have learned something new, what do you think other people should know about this subject? Provide your analysis below.

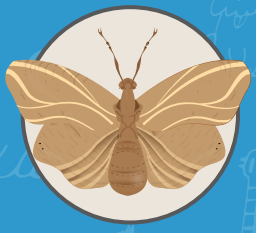
Draw a picture or cut and paste a photo here!

Animals

Match the animal with its special adaptation. An adaptation is a change or the process of change by which an organism or species becomes better suited to its environment.







BIG EARS

SHARP TEETH

WEBBED FEET

CAMO-FLAGE

BIG EYES

Adaptations are incredibly important to the survival of animals within an ecosystem. Draw your own animal and outline what its special adaptations are and how they make it easier for it to live within its habitat.

Recycling and Composting

What is Recycling?

What can be recycled?

What is composting?

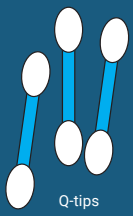
Think about it...what did you last put in the garbage? (draw it)

What are some ways you can think of to reduce and reuse in your life?

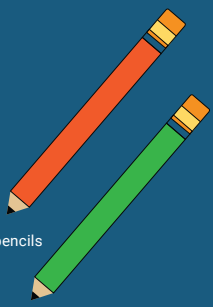
Draw a line from the item to the correct can

banana peel

soda can

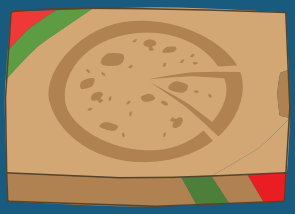


Q-tips

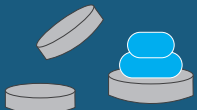


pencils

cardboard box



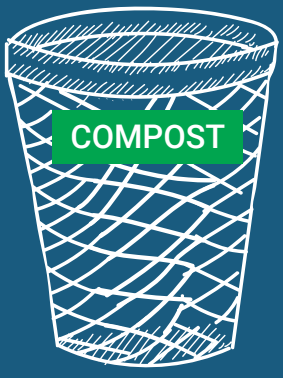
pizza box



bottle caps

newspaper

leaves



Answer: RECYCLE - cardboard box, soda can, newspaper COMPOST - leaves, banana peel, Q-tips TRASH - bottle caps, pencils, pizza box

Observation Adventures

Trail/Park:

Date:

Observations:

Observation drawings

Observation Adventures

Trail/Park:

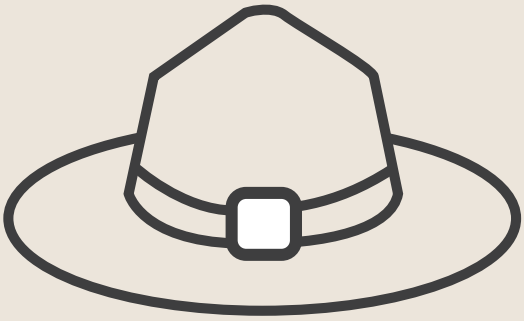
Date:

Observations:

Observation drawings

Ranger ME

Draw yourself as a ranger!



Storytelling

What stories will you tell people?

Stamps

Stamps

you are now
a Junior Park
Ranger!

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC SAFETY

RADworks here
Allegheny
Regional Asset
District

CITIPARKS
City of Pittsburgh
Department of Parks & Recreation