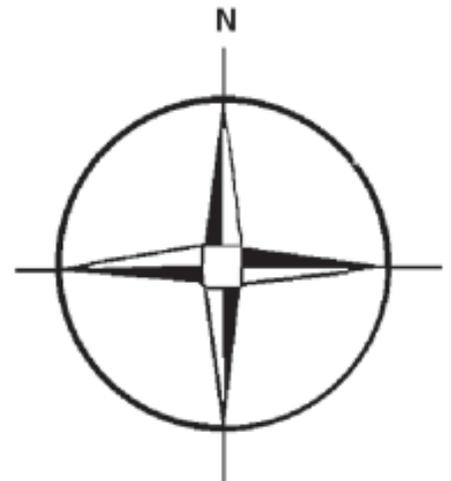
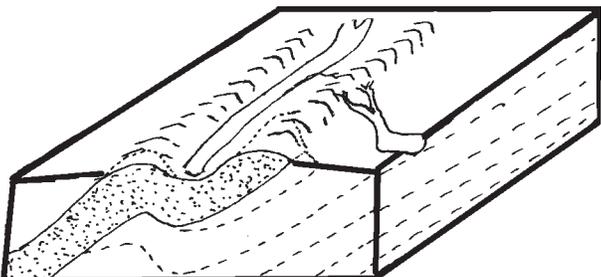


Junior Ranger Activity Book



The United States has hundreds of National Parks.

Delaware Water Gap National Recreation Area is a park that stretches along 40 miles of the Delaware River. For centuries, people have visited this area from all around the world to hike, boat, fish and to enjoy the scenery. Park Rangers and other park employees work to protect the plants and animals that live in the park, and the people who come to visit.

You can help too! Junior Rangers are kids who learn about the park, help to take care of it, and tell their families and friends about the park. To become a Junior Ranger, you will need to:

Complete the required activities in this book:

If you are 5 years or younger, do 4 activities.
If you are 6 to 8, do 6 activities.
If you are 9 and above, do 8 activities.

Bring your completed activity book to one of the park's visitor centers and share it with a ranger.

Take the Junior Ranger pledge, and tell everyone about being a Junior Ranger.

6/30/2010

If you have questions or comments about our Junior Ranger program, please contact:

Division of Interpretation & Education
Delaware Water Gap National Recreation Area
Bushkill PA 18324
(570) 426-2452

<http://www.nps.gov/dewa>

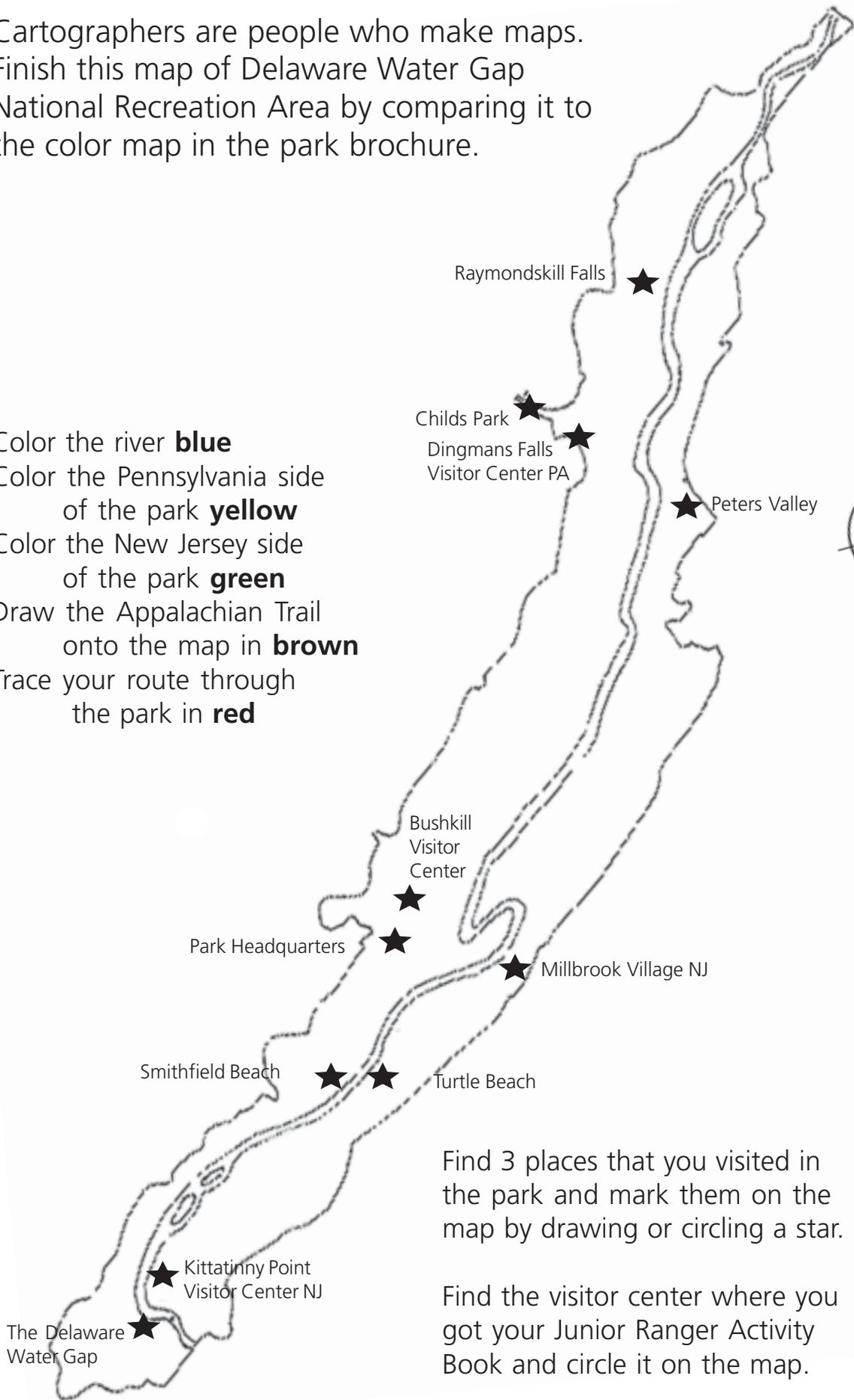
You can become a **National Park Service** webranger too!

Visit

www.nps.gov/webrangers/

Cartographers are people who make maps.
Finish this map of Delaware Water Gap
National Recreation Area by comparing it to
the color map in the park brochure.

- Color the river **blue**
- Color the Pennsylvania side
of the park **yellow**
- Color the New Jersey side
of the park **green**
- Draw the Appalachian Trail
onto the map in **brown**
- Trace your route through
the park in **red**



Find 3 places that you visited in
the park and mark them on the
map by drawing or circling a star.

Find the visitor center where you
got your Junior Ranger Activity
Book and circle it on the map.

Be a Cartographer

Interview a Park Employee



Park Rangers and other park employees work hard to protect park resources and park visitors.

Introduce yourself and interview a park employee to learn more about park jobs. Make sure you find out the person's name and daily tasks.

Think of 3 questions that you would like to ask this person. What answers did you get?

Name _____ **Job** _____

Question 1 _____

Answer 1 _____

Question 2 _____

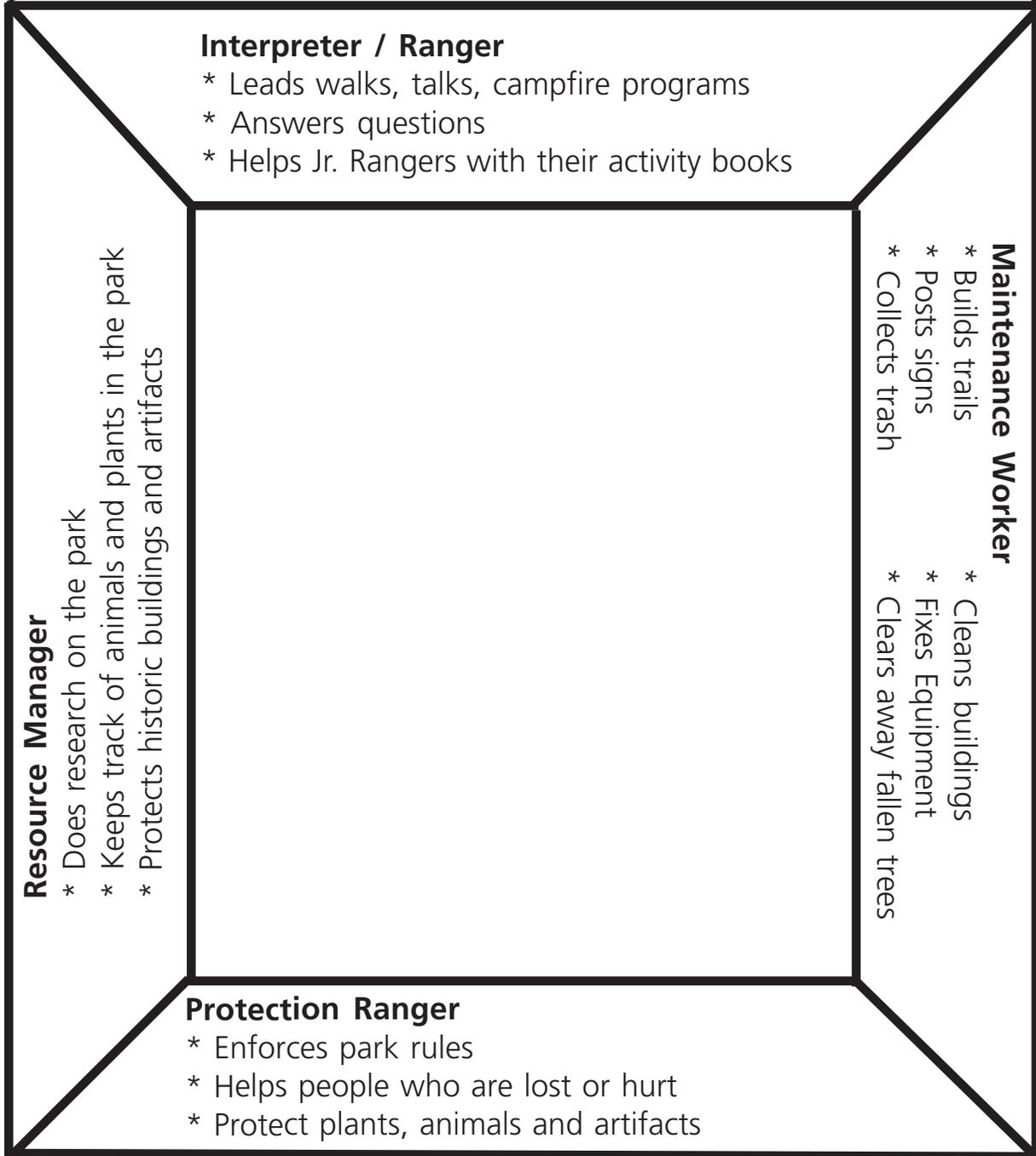
Answer 2 _____

Question 3 _____

Answer 3 _____

What is this person doing *today*? _____

How does that help protect the park? _____



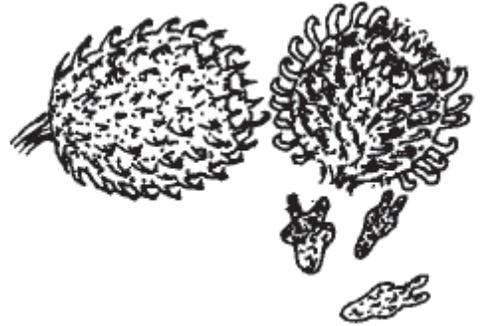
Draw a picture of the employee that you interviewed.

Plants on the Go

Animals walk from place to place, but did you know that plants move too? Read about the different ways that *seeds* move.

If *you* were a plant in Delaware Water Gap National Recreation Area, how could you get from place to place?

Some plants use animals to help them travel. They may attach to the animal's skin or fur and hitch a ride. Have you ever had a burr stick to your socks?



Some seeds are hidden inside of fruits that animals like to eat. When a bear eats a blackberry, the seeds are "planted" when the bear poops.

Sometimes the seed itself is an animal's food. Squirrels like to eat acorns. They also like to hide acorns to eat later. When a squirrel forgets where it hid an acorn, that acorn can grow into a new oak tree.



Other plants depend on the wind to move them from place to place. Milkweed seeds are carried on tufts of fluff that serve as parachutes to fly them to new places.



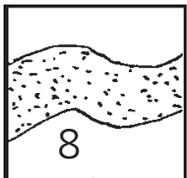
Maple seeds are inside of pods shaped like helicopter propellers. These mini helicopters spin through the air, taking the seeds to a new home.

Still other plants are dispersed from place to place by their own power. See if you can find a jewelweed near a stream. Touch the seed pod for a real surprise.



Find a plant. What do its seeds look like? How big are they? Draw a picture. How do you think they move from place to place?

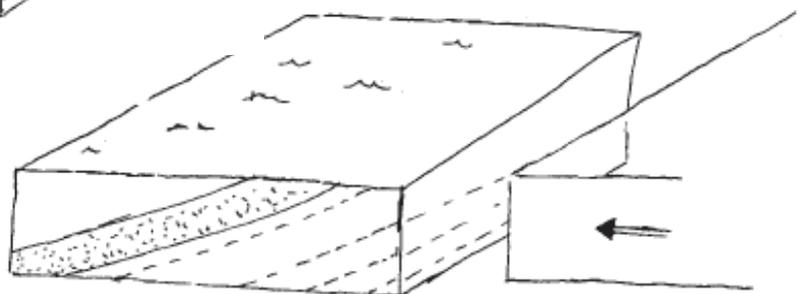
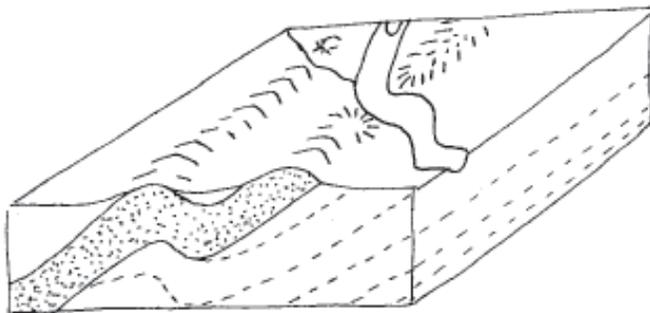
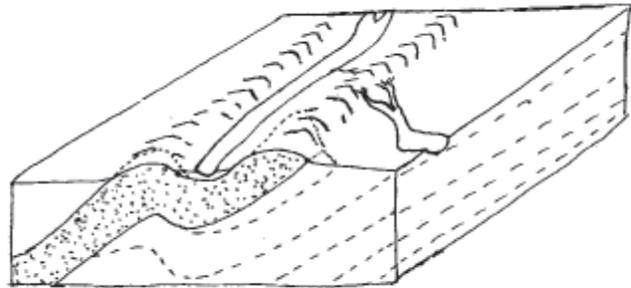
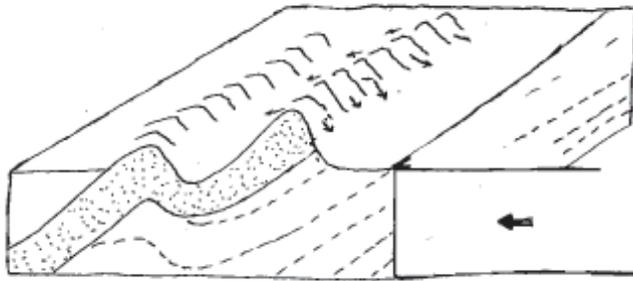
What's a Gap?



A *gap* is a place where there is a break in a mountain range.

Our gap is called a *the Delaware Water Gap* because the Delaware River flows through it. The mountain ridge here is called the *Kittatinny Ridge*.

Look at the pictures below and see if you can put them in an order that would form our water gap. When you are done, you can use the pictures to see one story of how the gap was formed.



Part of the fun of coming to a park is hearing *nature* sounds instead of people sounds. Have a parent, brother or sister, or friend play this game with you.

Find a good spot where you can sit down. One of you should listen for nature sounds (on the white background). The other should listen for human-made sounds (on the gray background). See who can get three in a row first!

rustling leaves	moving water	singing birds
cars	people talking	cell phones ringing
animal footsteps	wind in the trees	nuts or twigs falling to the ground
human footsteps	a siren	an airplane
a chattering squirrel	a tree creaking the breeze	an insect buzzing
a radio	a barking dog	a power tool

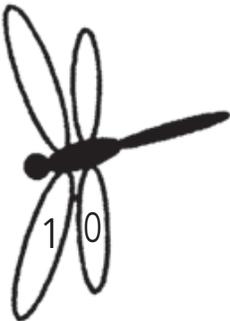
Nature Sounds Tic-Tac-Toe

Did your spot have more natural sounds or more human-made sounds?

How does that compare to where you live? _____



What's in the Water?



Water is very important to living things. All plants and animals need water to survive.

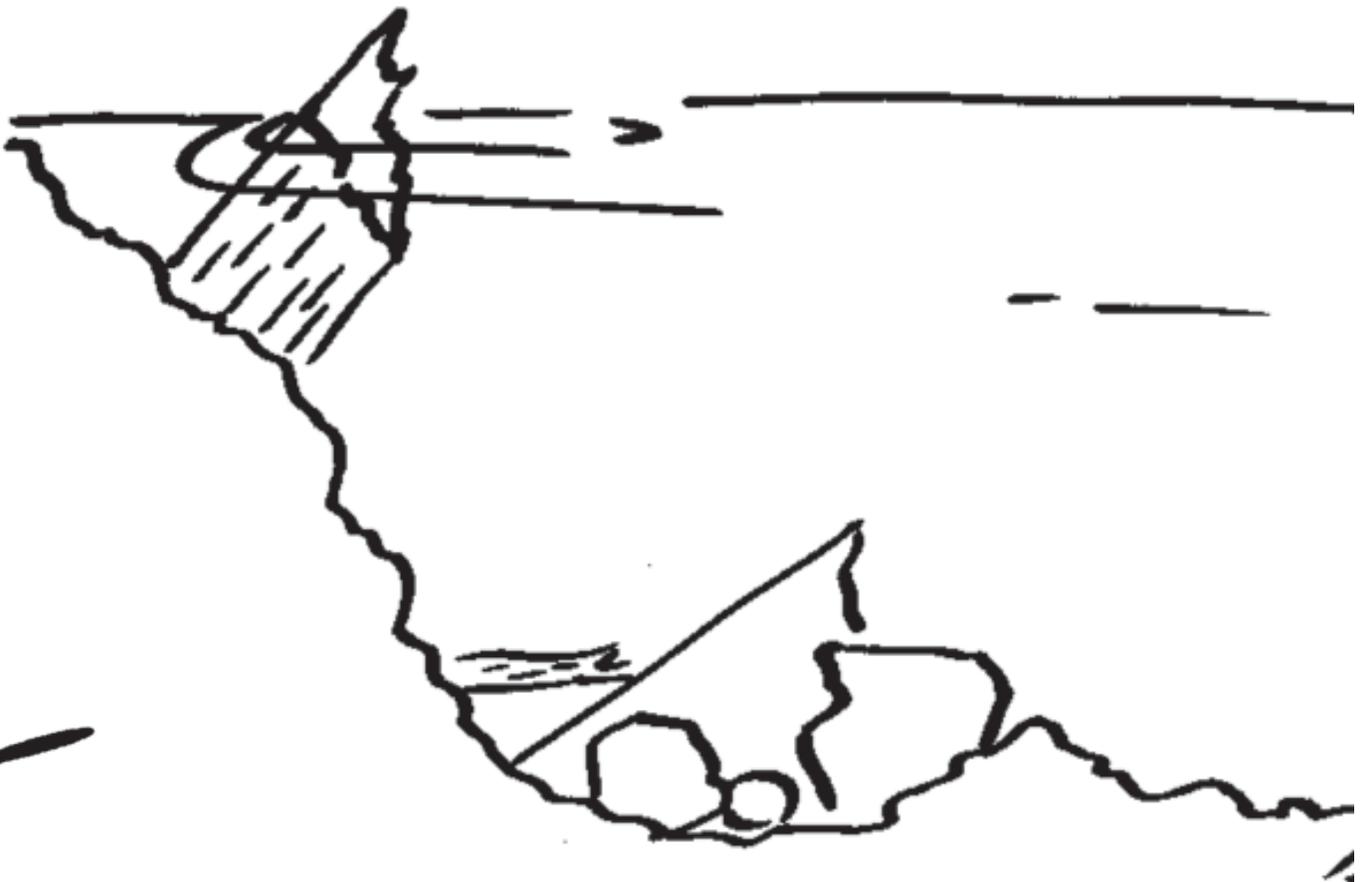
Some plants and animals don't just *drink* water, they *live* in it. In fact, biologists count the insects in streams as a measure of how healthy the water is.

Can you figure out where each insect lives? You can draw them where they belong in this park stream.

Water Strider - walks on top of the water



Dragonfly - lives in deep, slow-moving water.
The *nymph* shown at right crawls in the water.
The adult (*below at left, with page number*)
has wings and flies over the water.





Caddisfly - builds a rock, leaf or twig tube that helps it stay on the bottom



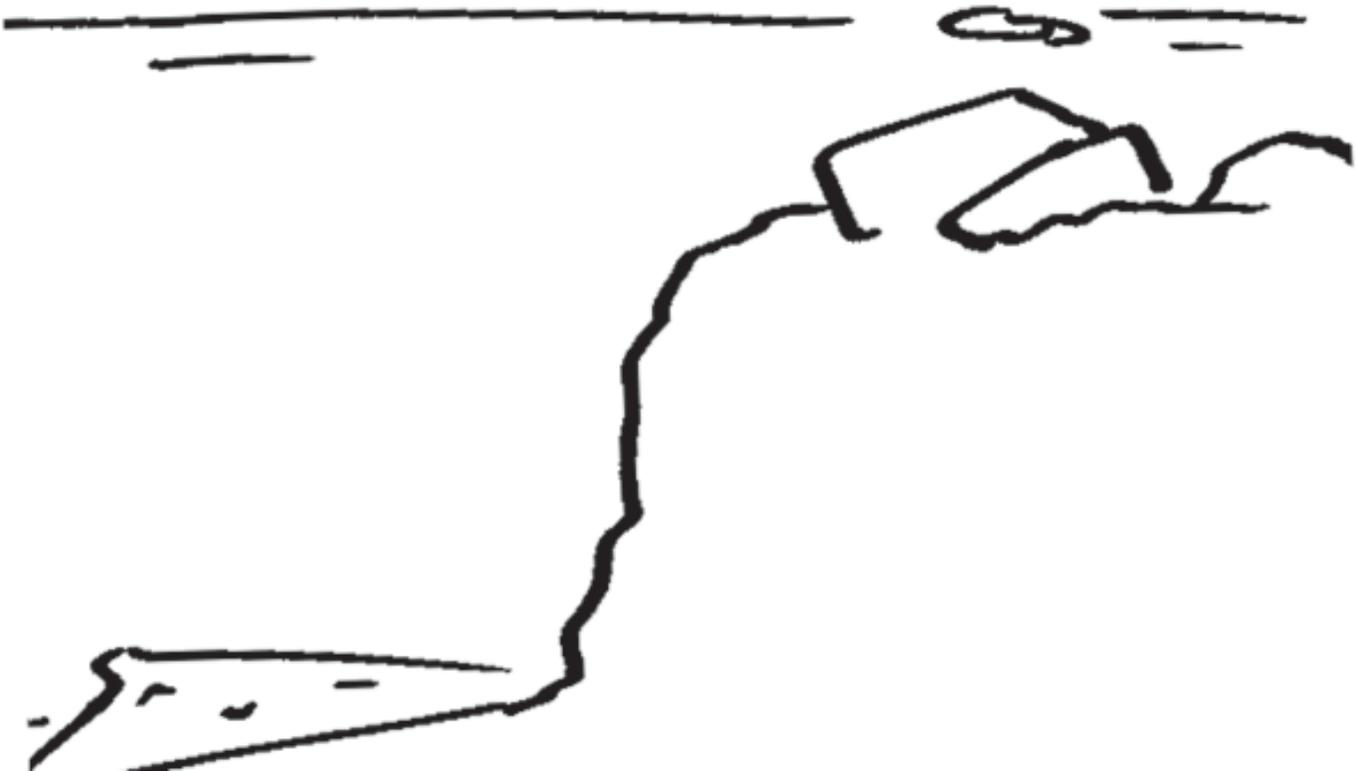
Water Boatman - swims in calm pools; takes a bubble of air to breathe when it dives



Mayfly - lives in fast water where there is more oxygen; its flat body allows it to cling to rocks



Stonefly - lives in fast water and clings to rocks

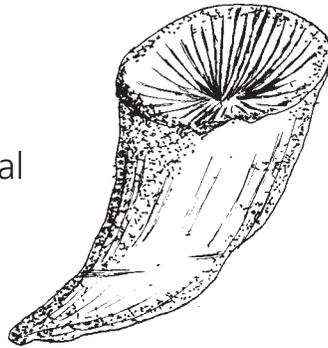


Sea into the Past

Hundreds of millions of years ago, the land that is now the park was underneath the sea. The remains of plants and animals from a long time ago are called *fossils*. Many of these plants and animals are *extinct*; they don't live anywhere on earth anymore.

See if you can match the fossils from the sea on this page with the sea animals that are still living today shown on the next page.

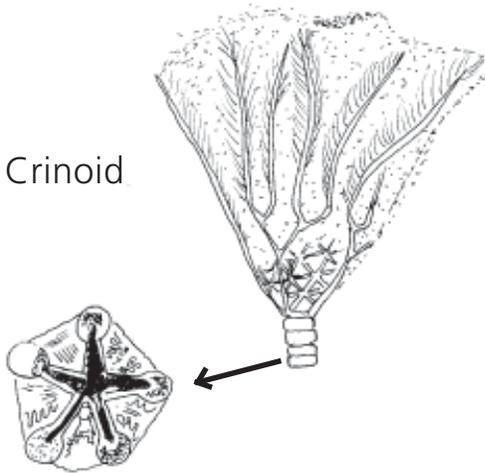
Horn Coral



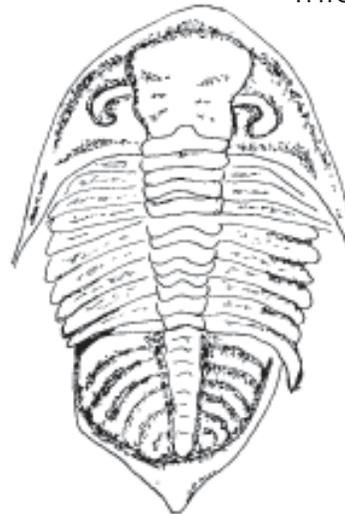
Brachiopod



Crinoid

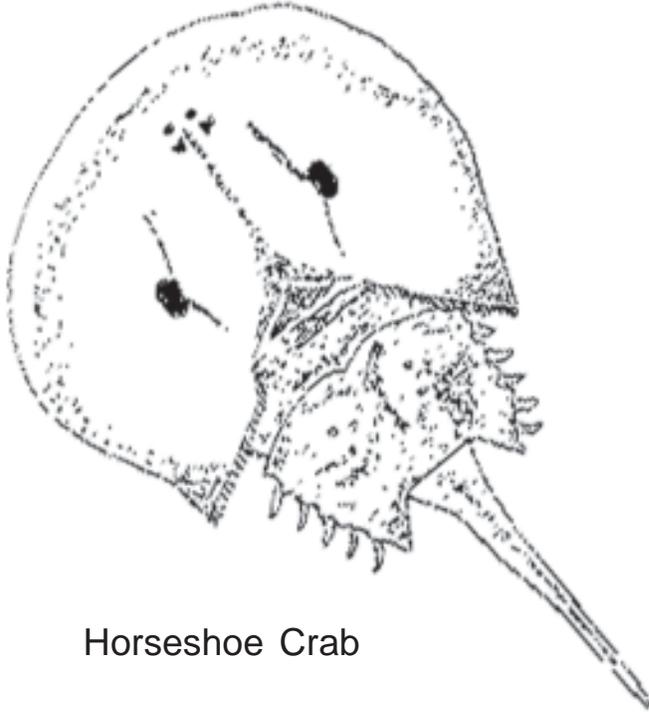


Trilobite



You can look for fossils while you are visiting the park. If you find one, you may want to draw a picture and let a ranger know where you saw it.

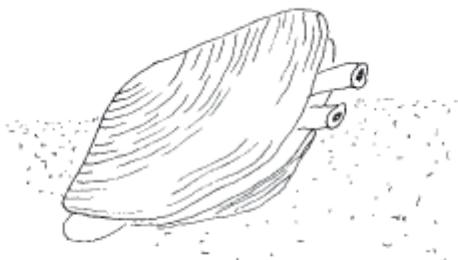
Remember, don't take it with you! Leave it where you found it, so that others can enjoy it and learn from it in the future.



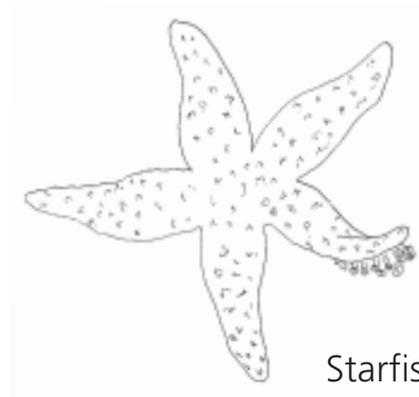
Horseshoe Crab



Coral



Clam



Starfish

What do you think it looked like here 350-425 million years ago when these fossils were living animals?

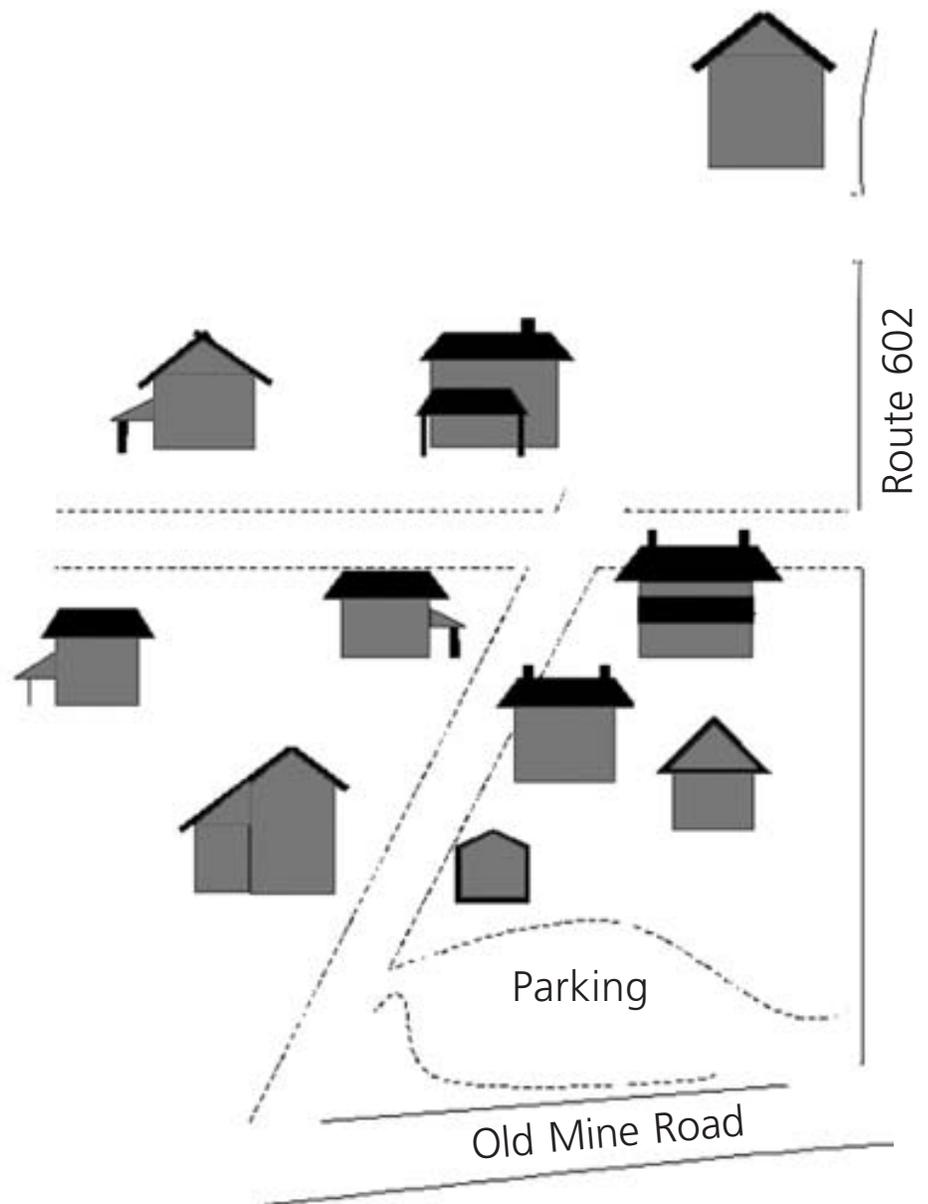
The map below shows the locations of the buildings in Millbrook Village. People once lived in Millbrook. Kids did chores and went to school, and had happy memories, just like you.

Take a walk through Millbrook. Look at all the different buildings. Circle your favorite building. Why is it your favorite?

Add at least three more things that you saw or did while in the village.

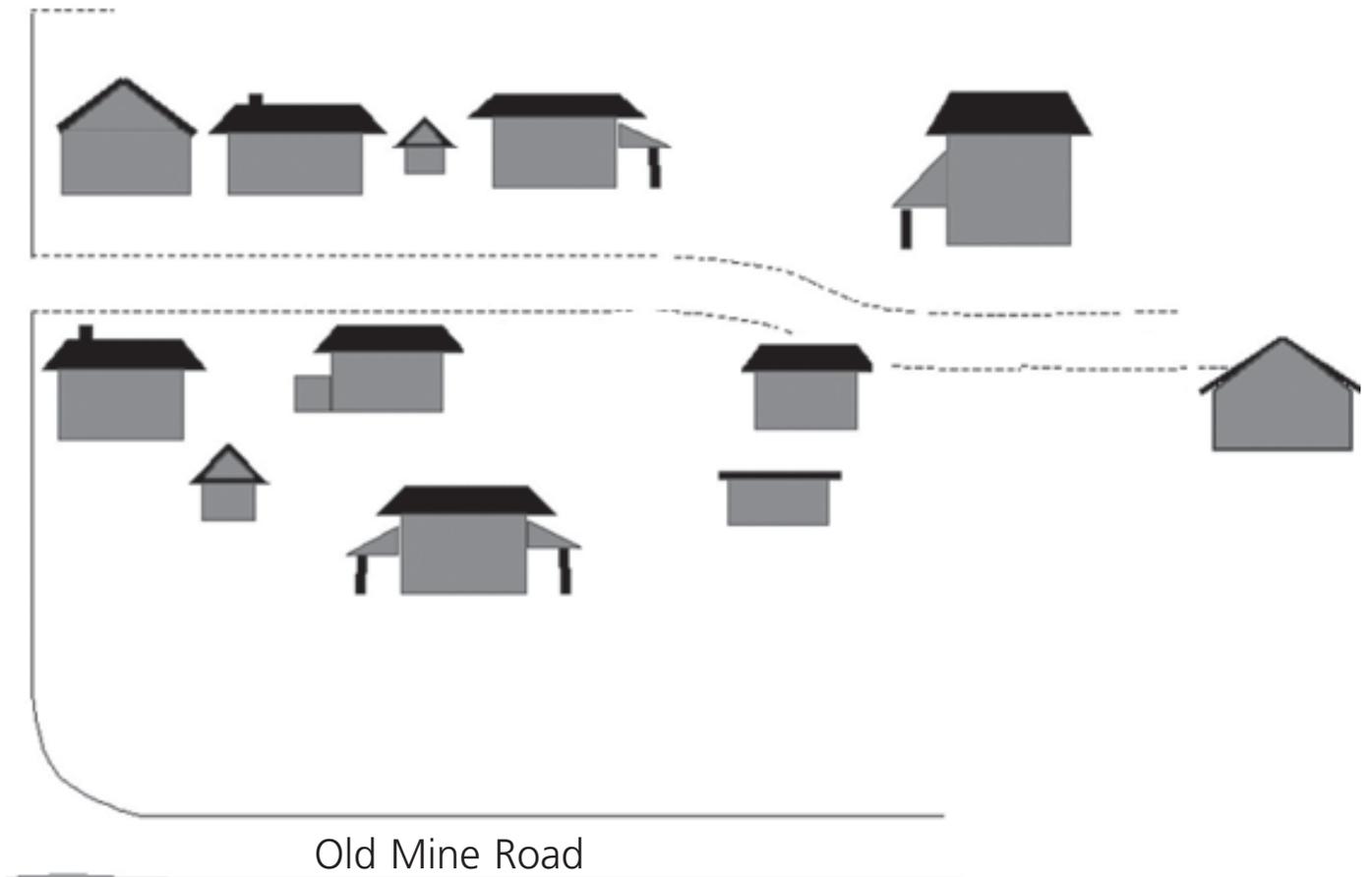
Ask the people working at Millbrook what are they doing. What are they making? What was it used for? Do you or your family use a similar thing today?

Memory Map



Write down what you find out.

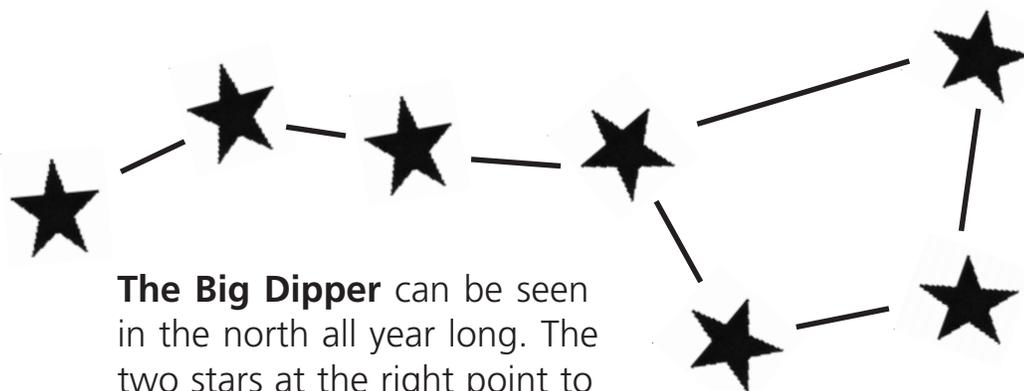
Add your own memories.



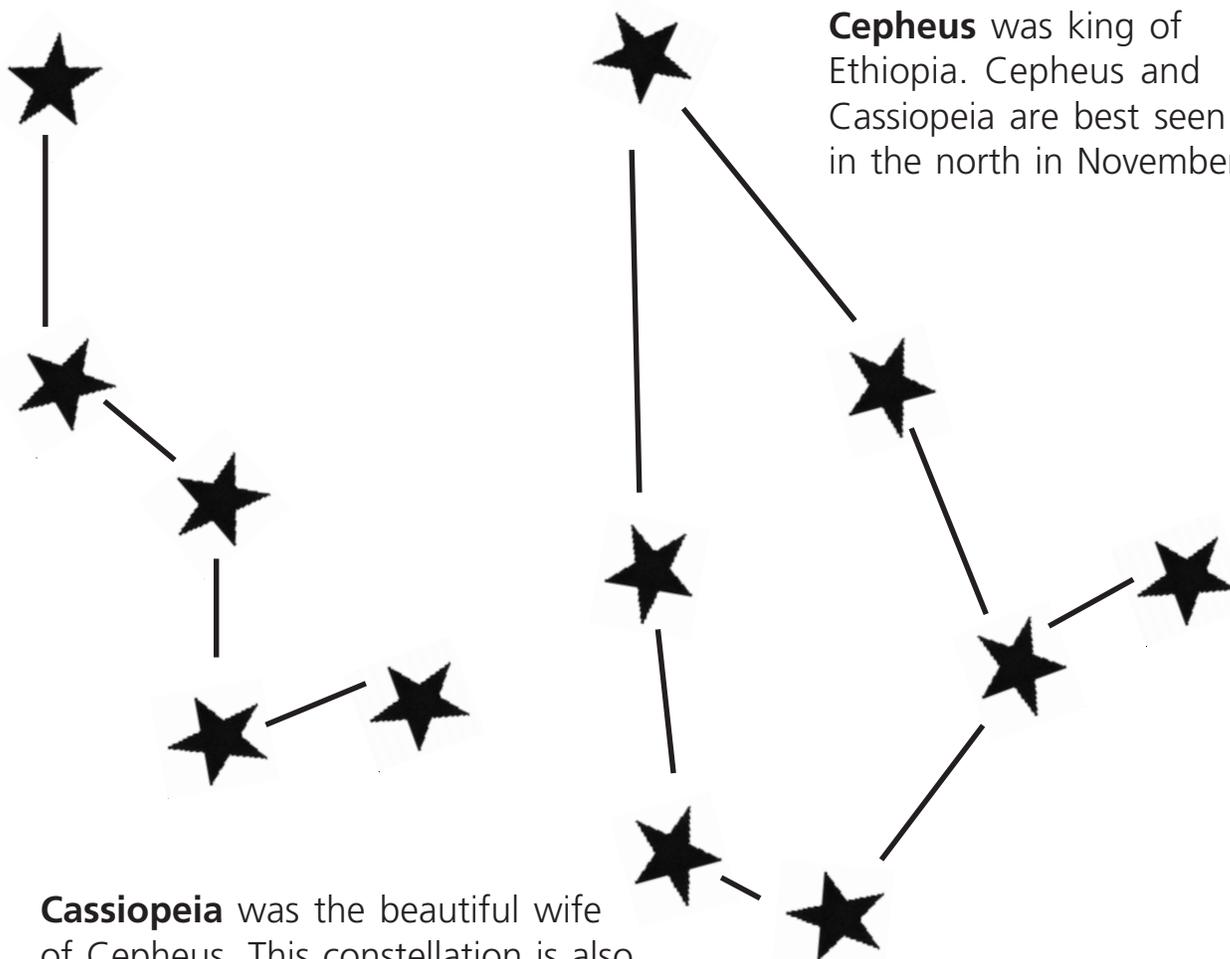
When you are away from the city and all its lights, you can see many more stars in the night sky.

Stargazers grouped stars together into *constellations* that they imagined look like an animal or person.

See if you can find the constellations shown in the pictures below.



The Big Dipper can be seen in the north all year long. The two stars at the right point to the North Star.

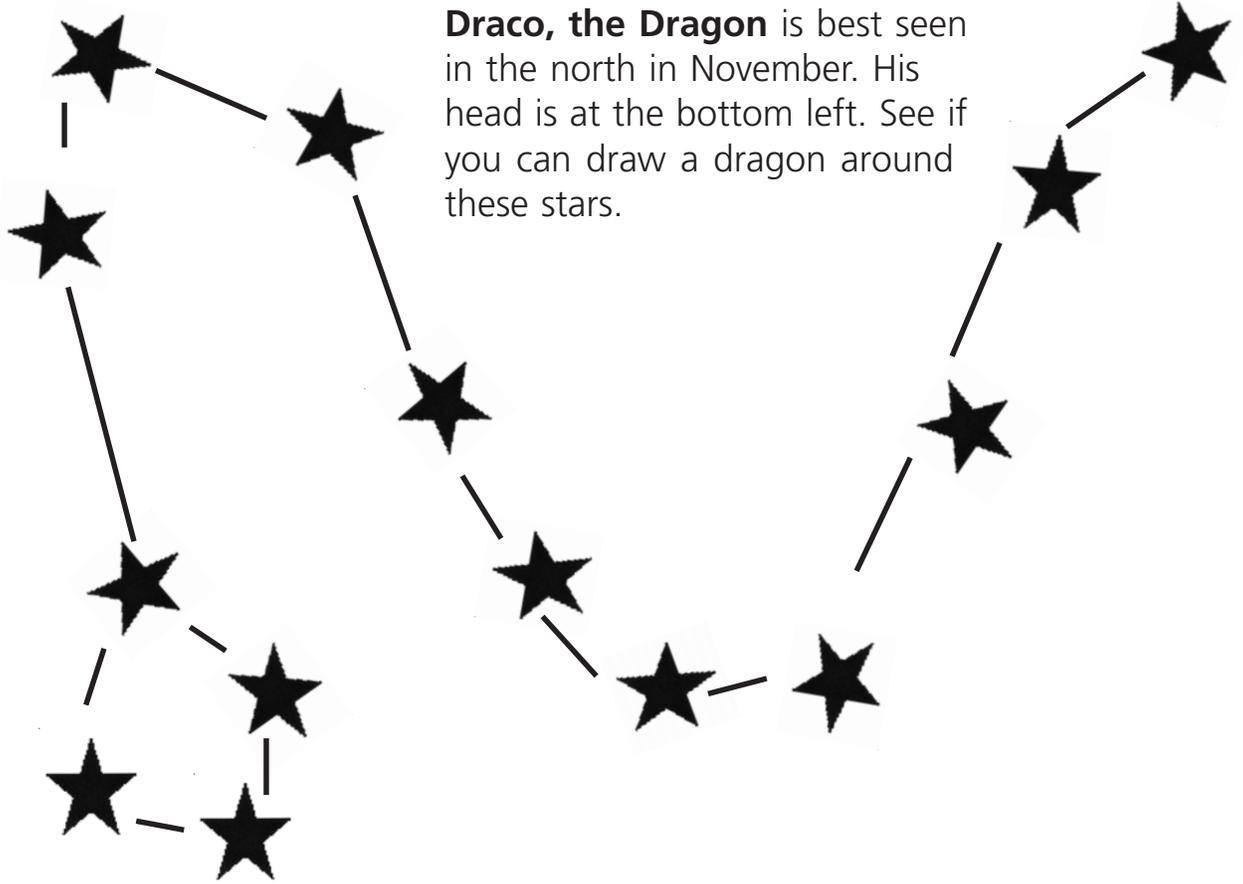


Cepheus was king of Ethiopia. Cepheus and Cassiopeia are best seen in the north in November.

Starry Night



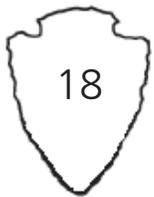
Cassiopeia was the beautiful wife of Cepheus. This constellation is also called the *Lazy W*. Can you see why?



Draco, the Dragon is best seen in the north in November. His head is at the bottom left. See if you can draw a dragon around these stars.

Pick one of the constellations (or find your own) and write a short story about how it came to be. Use your imagination.

About my visit to the park



Places I went to:

Things I saw and sounds I heard:

What I remember most:

Use the space below to write your own Junior Ranger pledge.

What will you do to protect this park and to take care of the the earth?



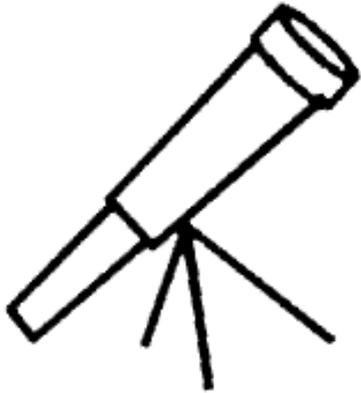
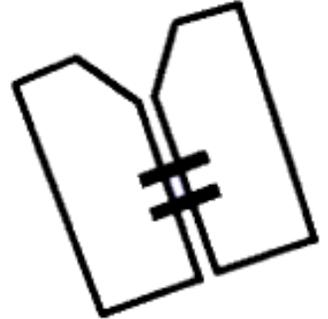
As a Delaware Water Gap Junior Ranger
I promise to help the rangers protect the park by:

I also promise that when I go home I will:

Junior Ranger's signature

is now an official Junior Ranger at
Delaware Water Gap National Recreation Area.

Park Ranger's signature



**Delaware
Water Gap
National
Recreation
Area**

