Brightwood Kids - Nature Detectives!

September 2021 Newsletter

As summer fades into fall, enjoy these last warm days but look forward to cooler temperatures and fun fall nature programs for kids 2 through 8:

September 30th: Trees: Identify Shapes & Sizes
October 21st: Picture This: Leaf Drawing
November 18th: Blow Wind Blow – Make your Own Wind Chimes
December 9th: Let it Snow

Halloween Family Jack-O-Lantern walk in the woods... We are working on a Halloween family fun event. Check www.FriendsOfBrightwood.org and the Westfield Recreation Department website for updates in October.

Registration will be coming soon for these programs at https://secure.rec1.com/NJ/westfield-nj/catalog.

Brightwood Birds


Photo by Chuan-Chu Chou

Brightwood Park is home to many types of birds. This summer, the park hosted many migratory birds – that is, birds who fly north when the weather warms up and south when it begins to turn cool.

Can you identify this bird who frequents the park in warm weather?

Great Blue Heron:


Photo by Chuan-Chu Chou

- lives in marshy areas – either near salt or freshwater;
- eats just about anything it can catch with its long, sharp beak, including fish, frogs, reptiles, insects, other birds, and small animals;
- builds nests from sticks and other materials in trees, bushes or other man-made structures;
- flies through the air with its neck drawn into an "S" shape and its legs folded back up behind it.

Listen to a heron's harsher sounding squawk:
https://www.allaboutbirds.org/guide/Great_Blue_Heron/sounds

There are other types of herons that come to Brightwood, such as Egrets and Friends of Brightwood Park's mascot, the **Green Heron**:


Photo by Chuan-Chu Chou

Green Herons have long necks drawn into their bodies that they can extend to snatch a fish.

Check out the All About Birds website to see a video of a Green Heron extending its neck and listen to its calls: https://www.allaboutbirds.org/guide/Green_Heron/sounds

This summer, some green herons made a nest near the pond where these two chicks were hanging out.

Photo by Chuan-Chu Chou

Why do leaves change color?

Photo by Lloyd Marks, M.D. , Ph.D.

In spring and summer, leaves have chlorophyll that uses sunlight to make food that the tree needs.

Since chlorophyll is green, leaves are green when there is a lot of sunlight – like during longer summer days.

When the weather turns cooler and the daylight gets shorter, the chlorophyll breaks down, and the leaves stop making food.

Without green chlorophyll, other colors in the leaves stand out. For example, some yellow and orange pigments masked by the green become visible in the fall.

Some other leaves have mixtures of colors from pigment and chemical changes that turn the leaves red, purple or brown.

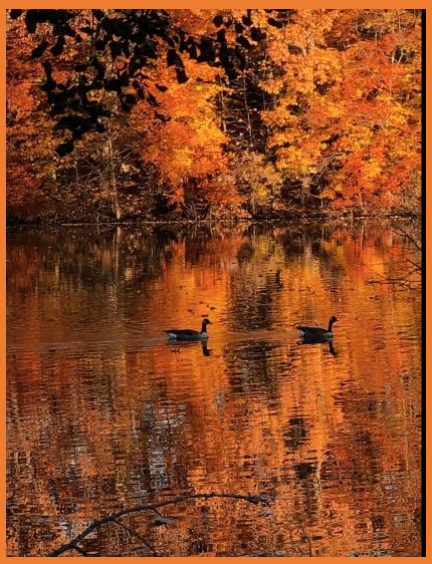


Photo by Chuan-Chu Chou

For more information: **https://www.esf.edu/pubprog/brochure/leaves/leaves.htm**

Spooky Spiders

With Halloween around the corner, check out Brightwood's spooky spiders:

Photo by Chuan-Chu Chou

Spiders are everywhere! There are over 45,000 different species of them - but only about 500 species call New Jersey home. Some people say that you are never more than 3' to 10' from a spider. Whether this is true or not, fortunately for arachnophobes (people who are afraid of spiders), spiders are rather shy.

Spiders are unusual in that they can spin silk threads that they use for many different purposes including making egg sacs and as a shield against predators. One key use is to spin webs to catch their food. Spiders use both sticky and non-sticky silk threads in their web designs. Spiders don't get caught in their own webs because they know to move on the non-sticky threads. They have claws on their legs to grasp the threads.

Spiders can be identified by the types of webs they create. The most common web type is an orb.

Orb Web

Photo by Chuan-Chu Chou

Orb weaver spiders are most common. Orb means circular – which is the shape of web they weave.

These spiders redo their webs daily and remember places where they previously built them. They hide most of the day. In the evening, they consume the day's web and rest for an hour before crafting a new one in the same or nearby area.

Notice the fine anchor lines that extend from the circular pattern silk threads. An orb weaver spider has to figure out what is nearby to anchor its web.

Photo by Chuan-Chu Chou

The spider also has to calculate how much silk it has available and how much is needed to craft this type of web in the space. The spider spins a silk frame around the anchor lines and then creates the spokes towards the center of the orb. Finally, the spider adds spiral lines with sticky silk thread around the spokes to capture its prey.

Photo by Chuan-Chu Chou

Sheet Web

You can find sheet webs strung across bushes or in blades of grass. These webs can be flat or bowl shaped, and some types of spiders build lacy web designs above.

The web system relies upon trip threads above the sheet that knock flying insects down into the sticky mass of silk below.

Photo by Chuan-Chu Chou

Tangle Web

Tangle or cob webs appear to be a messy mass of silk strands. Spiders build them on bushes or in buildings. The webs are secured above by non-sticky silk threads. Sticky silk strands reach down to the ground under tension. These strands are strong as steel but elastic like rubber. When a crawling insect touches the sticky silk tension strand, it breaks and draws the prey up into the web where the spider is hanging upside down lying in wait.

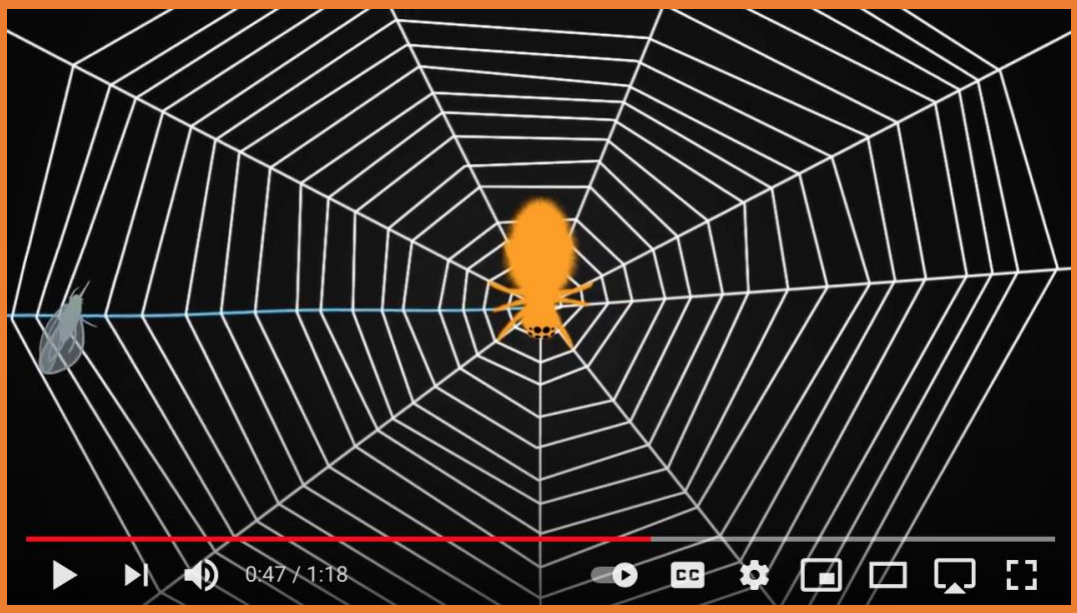
These spider webs take on a spooky glow in the moonlight!

Photos by Chuan-Chu Chou

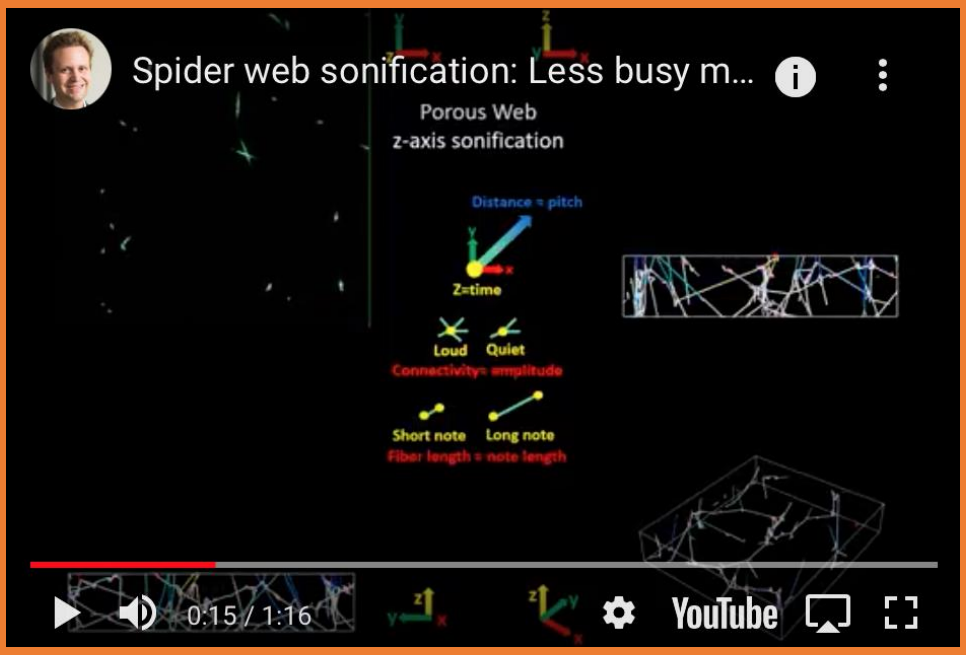
There are other types of spider webs such as funnel and woolly webs. See if you can find any in the park! Take a photo and send it to us at FriendsOfBrightwoodPark@gmail.com.

Spider webs are an engineering and musical feat! Since spiders don't see very well, they use vibrations and sound waves to find love and food.

This NPR youtube video found at **https://www.youtube.com/watch?v=0EkEsTafD38** explains how spiders tune their webs:

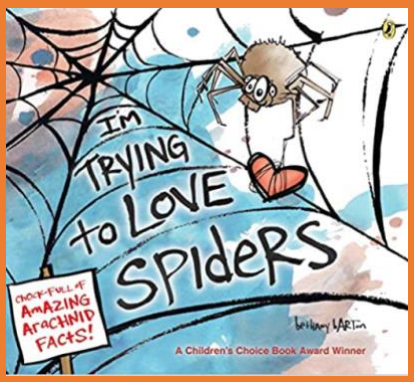


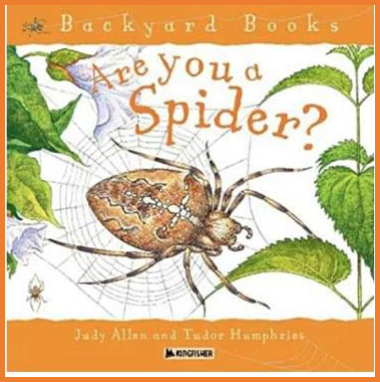
Scientists at Massachusetts Institute of Technology have turned spiderwebs into music. You can listen to the spooky world in a spider web here:
https://www.youtube.com/watch?v=s4QtAQhdU2I&t=15s

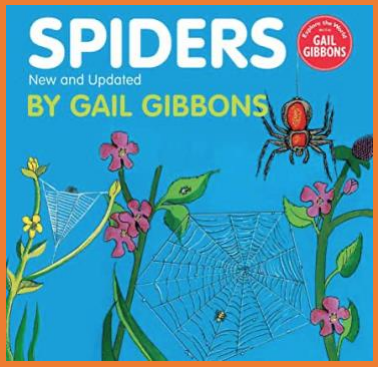


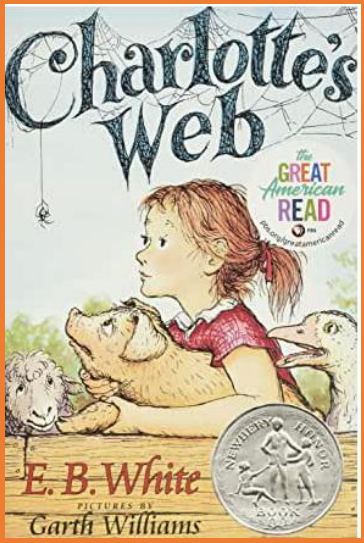
For more information about spider webs and music, check out:
https://www.smithsonianmag.com/smart-news/researchers-turn-spider-webs-music-180977506/

If you like spiders (or are ready to try to like them), here are some books for you!









Halloween Treat:

Bake up something sweet!

Chocolate Mouse cookies

3/4 cup sugar
1 cup butter
1 teaspoon vanilla
1 egg
2 ¼ cups flour
¼ cup unsweetened cocoa
½ teaspoon baking powder
miniature chocolate chips
string licorice cut into 2" pieces

Heat oven to 325 degrees. In a large bowl, beat sugar and butter until light and fluffy. Add vanilla and egg; blend well. Lightly spoon flour into a measuring cup; level off. Stir in flour, cocoa and baking powder; mix well. Shape dough into 1" balls.

To form a mouse, pinch one end of the ball to form a nose. For ears, make two tiny balls of dough and flatten slightly; gently press into dough on the upper front of each mouse body. For eyes, press 2 miniature chocolate chips into the dough beneath the ears. Place shaped cookies 2 " apart on ungreased cookie sheets.

Bake at 325 degrees for 8 to 12 minutes or until set. For mouse tails, immediately place piece of licorice into rounded end of each cookie. Remove from cookie sheets. Makes 3 dozen cookies.

Now you be a “Nature Detective!” What can you find in the park? Send us your photos at FriendsOfBrightwoodPark@gmail.com and you may just find them on our website!