

Discovery Stage

A NEW THEATRE FOR
YOUNG AUDIENCES

Fireflies in Winter

Know before you go!

- Discovery Stage is a **YES SPACE**. This means that kids and grown-ups are welcome to engage or interact in any way that is kind and safe.
- Floor seating will be available, but also chairs for those that need them.
- The show will be approximately 30 minutes long.
- Grown-ups may take photos, but please silence all cellphones!



Javaron Conyers
Glow



Emily Nedvidek
Flicker/Spark



Olivia Schaperjohn
Shimmer



Lauren Lee
Moth Stage Manager

Meet the cast!

How Fireflies help us!

Leave the leaves: 2

Fireflies hibernate in the leaves and use them to create habitat. Fallen leaves also host a healthy food web for the fireflies.

Fireflies are not only beautiful and magical critters, but they are also a vital part of our natural ecosystem. They help keep nature in balance.

Turn off the lights:

Uh oh! Light pollution at night disrupts Firefly communications! Turn off porch lights, and/or install timers on outdoor lights. Close your curtains at night.

HOW I CAN HELP FIREFLIES!

1. Firefly larvae are important predators. They help our garden by eating the bugs that eat our plants - controlling populations like snails, slugs, and earthworms.

2. Firefly eggs, larvae, and adults are food sources for birds and other creatures (though their blood contains toxins that taste yucky to predators).

3. Adult fireflies are pollinators that eat pollen and nectar, helping flowering plants.

How Fireflies are in danger:

Firefly populations, like many other bug species, are dwindling. Environmental conditions such as loss of wetlands and native plants, an increase in light pollution and water pollution, pesticide use, and climate change cause a diminishing of the Fireflies species.

Protect Fireflies:

There are many ways to protect our insect friends. Avoid spraying pesticides, leave leaves and logs to help create safe habitats, learn more, and teach others that insects are beautiful, valuable, and interesting!

FIREFLY LIFE CYCLE

Some species of fireflies can have a lifespan of up to two years.

In the Spring the pupa will emerge as Fireflies and make their own Firefly Families!

ADULT
FIREFLY!



Fireflies use their light to "talk" to each other and to find a mate.

Their larvae and even their eggs can glow!

A group of fireflies is called: A Sparkle!



In Summer, the eggs are laid and they will hatch!

As the larvae grow into the Fall season, they burrow under the ground to prepare for hibernation in Winter.

Firefly Fun Facts!

Post-Show & At Home Activities!

Participate in a Firefly Watch:
Visit massaudubon.org/programs-events/community-science/firefly-watch to learn more!

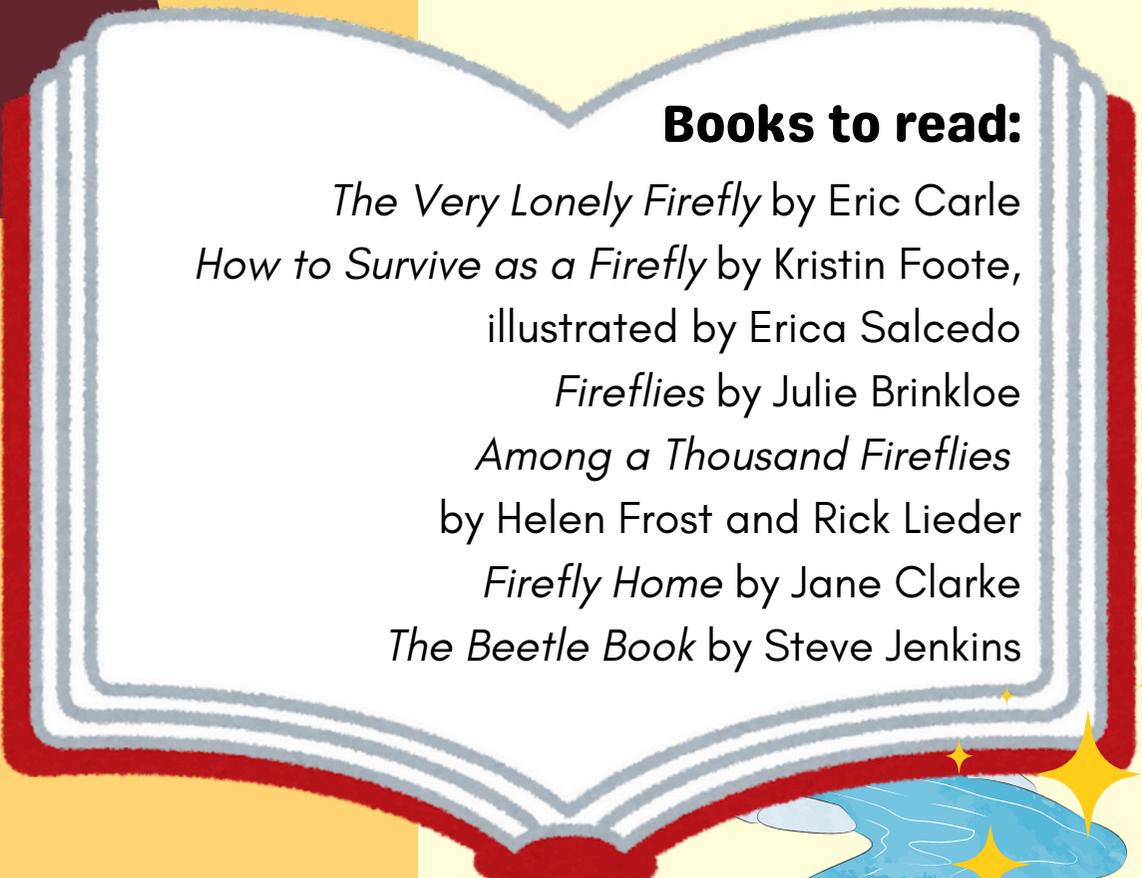
Host a Firefly Flashlight Family Dance Festival!
Read the page below for more info.

Adopt-A-Spot! Observe fireflies in your own yard, local park, garden, or nature center. Here's how:

Look for a habitat that has these firefly resources :

- Leaf litter, branches, and piles of wood for habitat.
- Nearby water source, such as a stream, river, or pond.
- Native plants like goldenrod (*Solidago*), Cardinal Flower (*Lobelia cardinalis*), and native pine trees.

Visit this space during firefly mating sesason (generally late May-early June; times may vary), more than once if possible, to study their behavior and interactions. See what you can learn and observe! How often do they light up? How long does each blink last? How many do you see?



Books to read:

- The Very Lonely Firefly* by Eric Carle
- How to Survive as a Firefly* by Kristin Foote, illustrated by Erica Salcedo
- Fireflies* by Julie Brinkloe
- Among a Thousand Fireflies* by Helen Frost and Rick Lieder
- Firefly Home* by Jane Clarke
- The Beetle Book* by Steve Jenkins



FIREFLY FLASHLIGHT CLASSROOM DANCE FESTIVAL

- Grab a flashlight and turn off the lights to shine and become your own Firefly “Sparkle”
- How do you like to dance, flash, and spin?



Songs to dance to:

Click on the links below for a curated firefly playlist!
These are also available on our website at discoverystage.org/

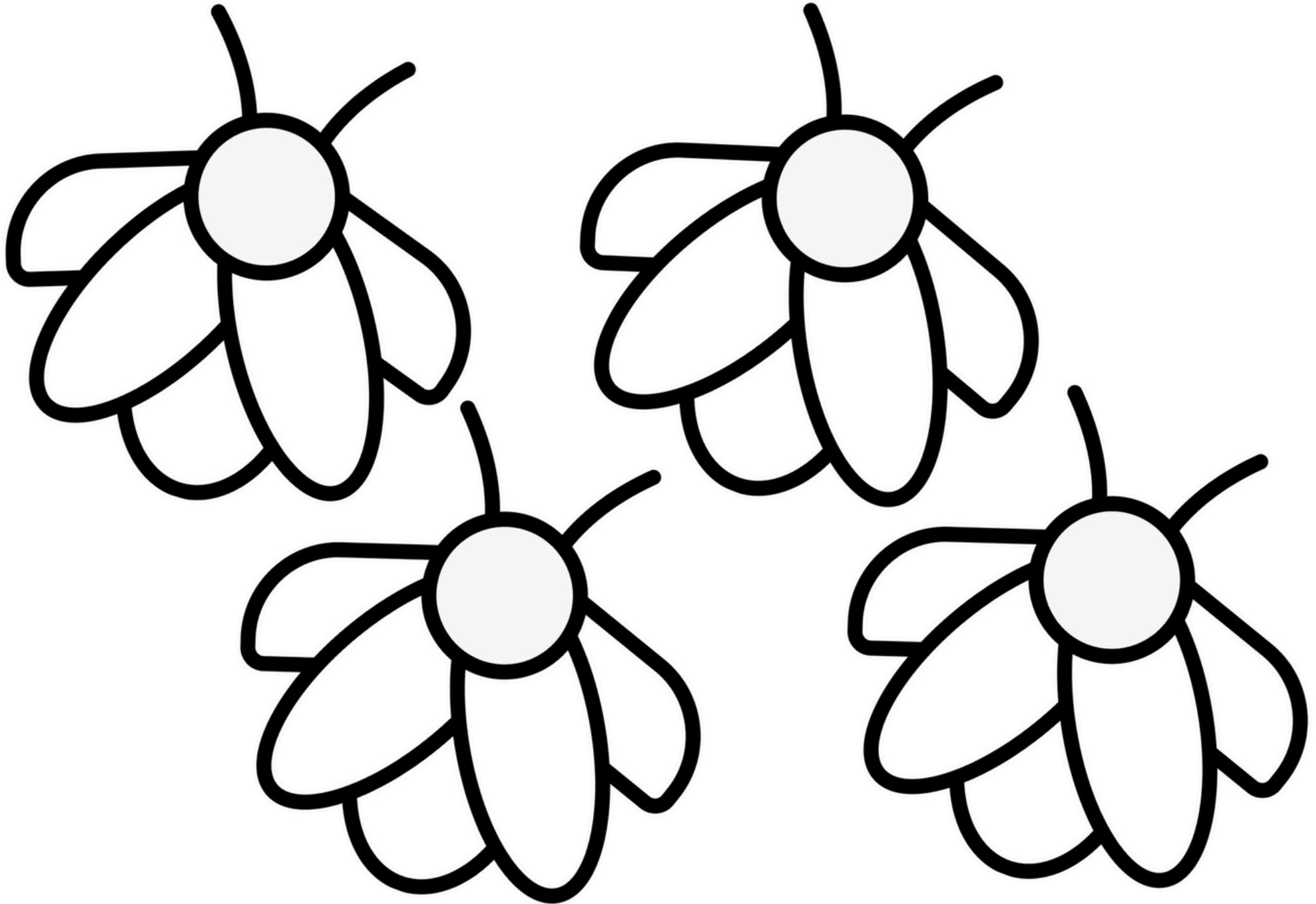


SPOTIFY PLAYLIST



APPLE MUSIC PLAYLIST

Instructions: Cut out the firefly. Decorate however you wish! Be as creative as you want. You could make antennae out of pipe cleaners, put glitter on its bottom to show it's glow, or whatever lights you up! When you are done, glue your firefly friend to a popsicle stick to complete your puppet. ***Be sure to bring it to the show!***



Georgia Pre-K Program Content Standards aligned in *Fireflies in Winter*

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Language & Literacy Development

LD 2: Children will learn to discriminate the sounds of language (phonological awareness)

LD 2 b: Repeats rhymes, poems and finger plays

Young fireflies learn the firefly family's "cultural" life cycle story through creative movement and rhyme. Children will be invited to repeat the story and gestures, learning so they may "teach" this story to the youngest fireflies and larvae together.

Scientific Development

SD 2: Children will acquire scientific knowledge related to life science

SD 2 d: Understands that plants and animals have varying life cycles

Children will learn about and witness the fireflies' life cycle as a major structural component of our performance. The life cycle is also included in our classroom guide for teachers to explore with their classes.

SD 2 e: Participates in activities related to preserving the environment

Children will learn about the importance of fallen leaves and soil to fireflies throughout their different life cycle stages. They will help to cover the eggs with fallen leaves. This also offers potential for discussion/discovery within the classroom about the importance of leaving the leaves in nature as a part of the cycles for soil and for animals that need leaf litter/cover to live.

To support this learning, our Classroom Guide briefly explores the benefits of fireflies to our ecosystems, as well as threats they face, and ways that people of all ages can help to mitigate these dangers (see above).

SD 4: Children will acquire scientific knowledge related to earth science

SD 4 a: Investigates, compares, and contrasts seasonal changes in the immediate environment

The fireflies in the performance experience and explore seasonal changes through the context of learning their own life cycle story; children will be invited to participate in key moments.

SD 4 c: Participates in activities to explore the earth (rocks, soil, air) and sky (clouds, sun, moon, stars)

Fallen leaves and soil are integral to the fireflies' story. Night vs. day (learning diurnal vs. nocturnal creatures) is also an important part of their story! Children will help to cover the fireflies' "eggs" with "fallen leaves" to keep them warm throughout the colder seasons.

Social Studies Development

SS 1: Children will develop an appreciation of his/her role as a member of the family

SS 1 a: Begins to understand family structures and roles

Fodder for in-class discussion: in our tale, the older creatures help take care of the young (eggs and larvae), and the younger learn to fulfill these roles as they grow, paralleling the roles of caregivers, siblings, etc. in human families.

SS 1 d: Becomes aware of family and community celebrations and events

Part of the reason for the fireflies' gathering is to celebrate their (fictional) "Final Firefly Festival of the Season." The story uses ritual to explore rhythms in nature. This festival is important to the firefly family as depicted, something they look forward to participating in together, and used as a way to share knowledge with future generations of fireflies.

Creative Development

CD 1: Children will explore and use a variety of materials to develop artistic expression

CD 1 d: Expresses interest in and shows appreciation for the creative work of others

Children will observe and also participate in this performance together, offering an opportunity for them to support the work of the performers/artistic team as well as the creative participation of their classroom community.

CD 2: *Children will participate in music and movement activities*

CD 2 a: *Uses music and movement to express thoughts, feelings, and energy*

CD 2 c: *Participates in creative movement and dance*

Children will be invited to learn dances to music and also repeat movements/gestures as part of a story within the performance.

CD 3: *Children will use drama to express individuality*

CD 3 a: *Participates in dramatic play to express feelings, dramatize stories, reenact real-life roles and experiences*

Children are invited to play “in-role” as part of the performance. One activity includes helping to rock the “eggs” to sleep and singing them a lullaby.

CD 3 c: *Participates in activities using symbolic materials and gestures to represent real objects and situations*

Children will use firefly puppets they have made prior to the performance to wake a member of the firefly family and to help tell the firefly family “story.”

Social & Emotional Development

SE 4: Children will develop interpersonal and social skills for relating with other members of the learning community

SE 4 c: Shows empathy and understanding to others

Children will be invited to help the eggs and fireflies go to sleep when they are tired, as well as help take care of the eggs, one another, and themselves. They will also join in teaching the fireflies' story.

SE 4 d: Participates successfully as a member of a group

This is an interactive performance, so children will receive clear invitations to participate as members of the community throughout the experience.



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