

MEMORANDUM

To: School Superintendents and Principals

From: Robin LeClaire, Director
Office of School Improvement

Date: May 25, 2018

Re: Senate Enrolled Act 236 – Say’s Firefly designated as state insect

Background:

The Indiana General Assembly recently passed legislation, effective July 1, 2018, designating *Pyrractomena angulate*, also known as Say’s Firefly, as Indiana’s state insect. This species of firefly was first described by Thomas Say of New Harmony, Indiana, and is also known as the father of American entomology.

Guidance:

Schools are encouraged to begin incorporating the Say’s Firefly into their instruction in similar ways that the state’s other emblems are incorporated. Integrating instruction around the Say’s Firefly is a great way to connect Indiana’s rich history and state pride into classroom instruction. Examples of standards below are provided but teachers are encouraged to look at all of their standards for ways of integration.

Science:

The standards were developed in a manner to provide flexibility to teachers in using examples that best meet the needs of the curriculum and instruction to ensure that students understand the content. As the standards have students exploring and investigating animals, look for ways to have students learn about the Say’s Firefly. Sample standards for this are found below:

- 2.LS.3: Classify living organisms according to variations in specific physical features (i.e. body coverings, appendages) and describe how those features may provide an advantage for survival in different environments.
- 3.LS.3: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- 5.LS.2: Observe and classify common Indiana organisms as producers, consumers, decomposers, or predator and prey based on their relationships and interactions with other organisms in their ecosystem.
- 6.LS.3: Describe specific relationships (predator/prey, consumer/producer, parasite/host) and symbiotic relationships between organisms. Construct an explanation that predicts why patterns of interactions develop between organisms in an ecosystem.

English/Language Arts:

The General Assembly referenced Hoosier poet James Whitcomb Riley when he wrote:

*"The fireflies, like golden seeds,
Are sown about the night."*

As teachers plan for various readings, look for way to incorporate stories and poems that can be connected to the Say's Firefly. Sample standards for this are found below:

- 1.RL.4.1: Use illustrations and details in a story to describe its characters, setting, or events.
- 3.RL.4.1: Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).
- 9-10.RL.4.1: Analyze multiple interpretations of a story, play, or poem, evaluating how each version interprets the source text.

There are many examples of children's literature that incorporate fireflies into the plot and/or characters. A sample of stories for various ages includes, but is not limited to:

- "Sam and the Firefly" by P.D. Eastman
- "Fireflies!" by Julie Brinckloe
- "The Little Firefly" by Sheri Fink
- "Firefly Hollow" by Alison McGhee
- "The Light of the Fireflies" by Paul Pen
- "The Very Lonely Firefly" by Eric Carle

Social Studies:

Fourth grade social studies and Indiana Studies at the high school level are focused on learning about the State of Indiana. Providing opportunities for students to learn about the importance of Indiana's state emblems at an age appropriate level allows for students to learn more about the importance of the Say's Firefly and its connection to Indiana. Sample standards for this are found below:

- 4.1.18 Research and describe the contributions of important Indiana artists and writers to the state's cultural landscape. Example of James Whitcomb Riley referencing Indiana's fireflies.
- 4.3.6: Describe Indiana's landforms (lithosphere), water features (hydrosphere), and plants and animals (biosphere).

Say's Firefly joins the list of Indiana's current list of state emblems as defined by Indiana Code:

- Poem: "Indiana" by Arthur Franklin Mapes
- Song: "On the Banks of the Wabash, Far Away" by Paul Dresser
- Flower: Peony
- Tree: Tulip Tree
- Bird: Cardinal
- Stone: Limestone
- River: Wabash River



Dr. Jennifer McCormick
Superintendent of Public Instruction

DEPARTMENT OF EDUCATION

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- Rifle: "Grouseland Rifle" was made by Colonel John Small of Vincennes, Indiana, between 1803 and 1812
- Aircraft: Republic Aviation P-47 Thunderbolt was produced in Evansville, Indiana, from 1942 to 1945 and commonly known as the "Indiana Warbird"

If you have any questions, please contact Nick Flowers at (317) 232-6619 or email nflowers@doe.in.gov.