



# Cass County Conservation Board High School Program List

## Next Generation Science Standards

Welcome to the Cass County Conservation High School Curriculum revised to reflect the Next Generation Science Standards. Here you will find any in-school programs we offer and field trip options. Feel free to contact Lora Kanning at [lkanning@casscoia.us](mailto:lkanning@casscoia.us) or 712-769-2372/712-254-0105 (cell) with any questions. The Cass County Conservation Board is dedicated to wildlife habitat development, management and preservation. These goals are reached by purchasing land for wildlife, by improving habitat quality and by providing educational programs for the citizens of the county.

There is specific programs listed per grade and there is also a basic layout for all of the general classes CCCB offers across grades. We have put the programs in the best fit grade by the Iowa Science standard, feel free to still ask for the program even though it might not be listed in your grade level. If you don't see a class that meets your needs please contact a naturalist to see if we can customize a class for your classroom. The programs listed are sponsored by the Cass County Conservation Board and are designed to actively involve your students. Call Lora Kanning at 712-769-2372 or e-mail [lkanning@casscoia.us](mailto:lkanning@casscoia.us) to schedule a program (Some require further advance notice)!



## High School

- **Fire Ecology (four weeks notice required):** Explore Fire Ecology inside and outside the classroom. Spring works best but can be offered in the fall. Students identify and evaluate the positive and negative effects that forest or grassland fires have on wildlife. HS-LS2-6
- **Vericomposting:** Worms eat my garbage!? Find out how these amazing creatures love our leftovers! Many extension activities available! HS-LS2-4
- **Real, Live, Endangered Species:** Your students will get to see a live animal (an ornate box turtle) that is listed as threatened on Iowa's Endangered Species list. I could also bring several mounted critters (Trumpeter Swan, River Otter, and Bobcat) that are, or have been, on the list. HS-LS2-1, HS-LS4-4, HS-LS1-3
- **Star ID:** Learn about constellations, tailored to the month of your program. HS-ESS1-3
- **Space Adventuring:** Learn about discovering space, tailored to eclipses, seasons and lunar events. HS-ESS1-4
- **Trash in our Oceans:** Using the movie Bag It, we will discuss the ocean currents, and the human effect on the ocean environment. Lots of different ways to utilize this movie. HS-LS2-7, HS-LS3-3
- **Resource Managers:** Introduce your students to the natural resource job field with this indoor classroom activity. Overhead projector use required. HS-LS2-7
- **Invasive Species:** Discover flora and fauna species in Iowa that are considered invasive. In-School program with optional field trip opportunity. HS-LS2-2
- **Intro to GPS:** Classroom program introducing the use of the equipment. Optional geocaching activities in our parks or in the Atlantic city limits. (20 units available)
- **Orienteering:** This activity is a blast for students of all ages. Call ahead of time and I will set up a course for your students to try after we learn the basics. (Four weeks advance notice please, 20 compasses available.) Optional orienteering treasure hunt activities at Outdoor Educational Classroom near Massena.



## High School

- **Mason Bee Edu: Mason Bee Decline - What do we know:** Researchers worldwide are racing to understand how bees are responding to environmental change and what is causing their decline, but what do we know so far, and how do we know it? HS-LS2-1
- **Mason Bee Edu: Mason Bees as Pollinators:** Without pollinators, our diet would be very bleak. Insects pollinate about 85% of major food crops, but some bees are better pollinators than others. HS-ESS3-3
- **Mason Bee Edu: Life Cycle, Development, and Reproduction:** How does a bee transform from a tiny white larva to a prolific flying pollinator? Well, butterflies aren't the only ones with cocoons. HS-LS4-5
- **Mason Bee Edu: Nesting and Mating:** Where do bees live, and why do they collect pollen? Learn about how mason bees prepare for the next generation and why it is such a monumental task. This module's activity must be completed in Mid to Late May.
- **Mason Bee Edu: Drivers of Bee Decline and What You Can Do:** What is causing bee populations around the world to decline, and what can we do to prevent future declines? Hint: there is a reason for hope and actions you can take to help. HS-LS2-7
- **Mason Bee Edu: Foraging Behavior in Mason Bees:** What are bees doing all day? Learn about what makes a bee so busy, their foraging strategies, and how bad weather keeps more than just humans indoors.
- **Mason Bee Edu: Sex Determination and Allocation:** Peek into the strange genetics of sex determination in bees and learn how this unique system impacts bee conservation. **This module's activity must be completed between September and March.**
- **Mason Bee Edu: Bee Phylogeny and Diversity Module:** Globally, there are over 20,000 species of bees and over 4,000 in the United States alone, but many people are only familiar with the honey bee! What are these other species and how did they evolve? HS-LS2-2