

# 3<sup>rd</sup> – 5th Grade Bio-Education Programs

*Exploring All that Makes Life AMAZING*



## Around We Go!

- **Grade Focus:** 2<sup>nd</sup> – 3<sup>rd</sup>
- **State Standard(s) Addressed:** 2..L.1., 3.L.2
- **Overview:** We are all unique and grow and develop in different ways! Students will be amazed as they explore this diversity of development by investigating living and model animals at different stages. We will have a ball playing the Life Cycle game and get a bit messy while making a frog egg slime mass.
- **Activities:** Meet and pet live animals in different stages (optional), play the Life Cycle Game and make frog egg slime masses
- **Take Home:** Frog egg slime mass
- **Live Animal Option:** This program can be implemented with or without live insects (larvae and adult), snakes (baby and adult), box turtles (baby and adult) and frogs (tadpole, when available, and adult).
- **Career(s) Explored:** Herpetologist, Entomologist



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## Roots and Shoots!

- **Grade Focus:** 2<sup>nd</sup> – 3<sup>rd</sup>
- **State Standard(s) Addressed:** 2..L.1., 3.L.2
- **Overview:** From roots to shoots, students will explore the different parts of a plant that makes survival and reproduction possible. Using live plants and plant parts, we will investigate the great variety of plants and experiment with pollination and seed dispersal using real flowers, seeds, and fruits. Students will plant-and-take their own plant to grow and watch go through its life cycle. If the weather and campus allows, students will be taken out to learn about the plants right outside their classroom.
- **Activities:** Identify and compare live plants and plant parts, experiment with different seeds, plant a plant, plant walk on campus (if weather and campus allows)
- **Take Home:** Planted seed in take-home container
- **Live Animal Option:** Maizey, the corn snake
- **Career(s) Explored:** Botanist, Farmer



## Our Amazing Bodies!

- **Grade Focus:** 3<sup>rd</sup>
- **State Standard(s) Addressed:** 3.L1
- **Overview:** Students will take a look inside their bodies at their bones, muscles and skin and learn how they work together to keep us upright, moving and protected. We will compare our bodies with other animals by looking at x-rays and bones and parts of different animals. How are we the same? How are we different AND most important, why are we different?  
Students will make-and-take a backbone model bracelet and make a skin mold for further observation. Option: This program can be implemented with or without live snakes, turtles and salamanders.
- **Activities:** Compare animal skeletons, skins, and X-rays, make a backbone model bracelet, make a skin mold, and meet and greet with animals for comparisons
- **Take Home:** Backbone model bracelet and skin mold
- **Live Animal Option:** Snakes, turtles, salamanders
- **Career(s) Explored:** Orthopedist, Dermatologist



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## Awesome Adaptations

- **Grade Focus:** 4<sup>th</sup>
- **State Standard(s) Addressed:** 4..L.1
- **Overview:** Discover the amazing adaptations that make life both unique and possible! Students will learn what adaptations are and what purpose they serve by observing real and model animals. We will play an exciting game of true survival using a variety of adaptations. Students will be creative as they design their own critter that is best suited for their habitat. From large predators with tooth and claw to the smallest critters that are experts in camouflage and mimicry, students will be amazed at the awesome diversity of life! Option: This program can be implemented with or without live snakes, turtles, and salamanders
- **Activities:** Play *Operation: Survive*, design a unique critter, meet and greet with live animals (optional)
- **Take Home:** Student-designed critter
- **Live Animal Option:** This program can be implemented with or without live snakes, turtles and salamanders
- **Career(s) Explored:** Herpetologist, Ecologist



## Protecting Our Home

- **Grade Focus:** 4<sup>th</sup>
- **State Standard(s) Addressed:** 4..L.1
- **Overview:** Students will learn how we can be better stewards of our environment through engaging hands-on activities and investigations of behaviors that are simple but effective. This inspiring program will focus on the recycling and reusing waste, conservation of resources such as water and electricity and habitat restoration efforts such as planting trees and picking up litter.
- **Activities:** Play Recycling Rocks game, make edible landfill, play water cycle game, and plant native plant
- **Take-Home:** Native plant seed in take-home container and water cycle bracelet
- **Live Animal Option:** Maizey, the corn snake
- **Career(s) Explored:** Urban Planner and Park Ranger



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## Water, Water, Everywhere!

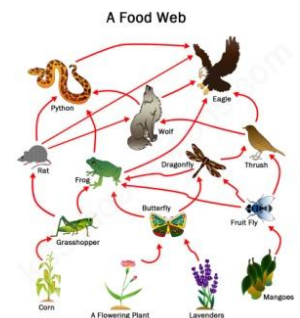
- **Grade Focus:** 5<sup>th</sup>
- **State Standard(s) Addressed:** 5.P.2
- **Overview:** Join us as we journey through the water cycle. Students will gain a greater understanding of this crucial process as they take part in a life-size game board, make a water cycle bracelet, and create and interact with their own watershed.
- **Activities:** Play the water cycle game, make water cycle bracelet, and create watershed model
- **Take Home:** Water cycle bracelet
- **Live Animal Option:** Maizey, the corn snake
- **Career(s) Explored:** Freshwater Ecologist, Ichthyologist



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## Oh a Tangled Web!

- **Grade Focus:** 5<sup>th</sup> – 6<sup>th</sup>
- **State Standard(s) Addressed:** 5.L.2, 6.L.2
- **Overview:** Students will be amazed just how intricate all life is connected! We will discover the power of the sun's energy as we play the "Pass the Energy" game, observe an actual food chain when we dissect an owl pellet (puke...but don't worry, it has been sterilized), meet live animals (optional), model a food web to see how intricately connected all organisms are and make an edible food chain bracelet showing why large predators are rare.
- **Activities:** Play Pass the Energy game, model a food web, dissect an owl pellet, meet-and-greet with animals that are a part of food chains in the wild, and make an edible food chain bracelet
- **Take Home:** Edible food chain bracelet
- **Live Animal Option:** Beetles, turtles, salamanders, and snakes
- **Career(s) Explored:** Ecologist, Ornithologist



## Grossology: The Human Edition

- **Grade Focus:** 5<sup>th</sup>, 7<sup>th</sup>
- **State Standard(s) Addressed:** 5.L.1, 7.L.1
- **Overview:** Students will investigate bodily functions that are often considered gross but are vital to our health. From digestion to sweating to the making of mucus, students will gain a better appreciation of these slimy, sweaty, stinky processes!
- **Activities:** Milk and dish soap/bile experiment, rocket canisters/flatulence experiment, cracker chew/digestion experiment, sweating experiment, and make mucus
- **Take Home:** Mucus/slime
- **Live Animal Option:** Maizey, the Corn Snake
- **Career(s) Explored:** Gastroenterologist, Otolaryngologist

