



Biology. Kids. Hands-on. Fun.

Bionerds, Inc
PO BOX 81004
Rancho Santa Margarita, CA 92688

(949) 288-1486
hello@bionerdsllc.com
www.bionerdsllc.com

Bionerds Curriculum

(Updated 8/12/19)

Bionerds offers vast Biology topics from insects, animals, human, microorganisms, and more. Each topic is a one-hour class. Laboratory safety training is always included at the beginning of the class. We continue with a short lecture on the topic, and the rest of the time it will be fun and hands-on activities for the students. The students will have up-close personal experience with the organisms we learn, perform dissections on some topics, and/or do biology experiments and activities. We will provide a lab coat and gloves for each student. Goggles and masks are provided as well as needed. If you prefer to not having dissections in the classroom, it is totally fine! We'll do a different activity instead. Just let us know.

- After-School Programs – page 1-4
- Camp Programs – page 5-6
- Topics – page 7-8

Bionerds After-School Programs (One-hour weekly class for 6-10-week session)
Animal Kingdom: Wilder Than you Think!
Come and join this fun and hands-on biology workshop for kids! Learn about the amazing animal kingdom, from frog, lizard, birds, and more. Your child will be up close and personal with the fresh/preserved organisms and perform dissections, cool biology experiments using lab equipment/tools.
Aquatic Creatures: No Gills Required!
Come and join this fun and hands-on biology workshop for kids! Learn about many freshwater and marine aquatic creatures, from sea urchin, stingray, lamprey, leech, and more. Your child will perform dissections and cool biology experiments/activities.
Bioengineering: Designing Life
Come and join this fun and hands-on biology workshop for kids! Learn how to design and create something to improve life itself, such as artificial tissue, laboratory equipment, genetic modification, energy, and more! Your child will be exposed to engineering concept related to biology and perform cool biology experiments and activities.
Camping Science: Connecting with Nature – NEW! SPRING 2020
Come and join us as we cover topics to help your child recognize and appreciate the living world just outside their window. We will discuss camping-related topics and local wildlife one might encounter to the importance of preserving our ecosystem. What plants are harmful or used for medicinal purposes? What animals we may see outdoor? Find out in our classes geared towards the outdoor explorer!



Biology. Kids. Hands-on. Fun.

Bionerds, Inc
PO BOX 81004
Rancho Santa Margarita, CA 92688

(949) 288-1486
hello@bionerdsllc.com
www.bionerdsllc.com

Bionerds After-School Programs (*continued*)

(One-hour weekly class for 6-10-week session)

Decomposers: Earth's Best Friends!

Come and join this fun and hands-on biology workshop for kids! Learn why and how these organisms, from worms, beetles, crustaceans, and more, are called Earth's best friends. Your child will be up close and personal with the live organisms on some topics and/or perform dissections, cool biology experiments on the other using lab equipment/tools.

Dinosaurs: Fantastic Pre-historic World!

Dinosaurs ruled the earth for 180 million years. Your child will learn the role each of the major types of dinosaurs played in their ecosystems, and the traits that made them such successful organisms for so long. Your child will do cool paleontological experiments & activities and learn about biological processes.

Food Science: Your Food is Alive! – NEW! Fall 2019

Come and join us as we learn about the amazing world of food science! We will discuss how some living organisms are responsible for making some of the foods we love such as cheese, yogurt, bread, and more. Get up close with live organisms using a microscope and perform cool biology experiments/activities. Some of these foods are to take home! No nuts in class but please indicate allergies if any.

Forensic Science: Bionerds' Way!

Come and join the fun to become a Forensic Scientist – Bionerds way! Your child will learn forensic and biology techniques, experiment and activities to further deductive reasoning to uncover the truth following in the footsteps of Sherlock Holmes and Scotland Yard. Topics will include fingerprinting, DNA, trace evidence, wildfire forensic, and more.

Halloween Science with Boo-ionerds! – NEW! Fall 2019

Trick or treat! Come and join us on a journey where we learn about some creepy and crawly topics of the Halloween season. From animals like bats and spiders to things like bones and pumpkins, there's a class for everyone to get into the Halloween spirit. Your child will be up close and personal with the live organisms and perform dissections, cool biology experiments using lab equipment/tools.

Human Body: We are Super!

Come and join this fun and hands-on biology workshop for kids! Learn about our amazing human body from your thumb, heart, eyes, lungs, to your sense of smell and more. Your child will perform dissections and cool biology experiments and activities.

Human Body: We are Super! (Part II)

Come and join this fun and hands-on biology workshop for kids! Learn about our amazing human body from your brain, muscles, skin, bones, and more. Your child will perform dissections and cool biology experiments and activities. No need to



Biology. Kids. Hands-on. Fun.

Bionerds, Inc
PO BOX 81004
Rancho Santa Margarita, CA 92688

(949) 288-1486
hello@bionerdsllc.com
www.bionerdsllc.com

Bionerds After-School Programs (*continued*)

(One-hour weekly class for 6-10-week session)

Insects: Bug Me if You Dare!

Come and join this fun and hands-on biology workshop for kids! Learn about the amazing bugs around us such as beetles, butterflies, crickets, micro-arthropods, ladybugs and more. Get up close and personal with live bugs using a microscope and perform cool biology experiments.

Insects: Bug Me if You Dare! (Part II)

Come and join this fun and hands-on biology workshop for kids! Learn about the amazing bugs around us such as grasshopper, mealworm beetles, and more. Get up close and personal with live bugs using a microscope and perform cool biology experiments.

It's All About Life!

Come and join this fun and hands-on biology workshop for kids! Learn about the amazing life around you, from decomposers, insects, plants, human, microorganisms, genetics, and more. Your child will be up close and personal with the live organisms on some topics and/or perform dissections, cool biology experiments on the other using lab equipment/tools.

Marine Animals: Amazing Waterworld!

Come and join this fun and hands-on biology workshop for kids! Learn about many marine animals, from starfish, fish, clam, shrimp, and more. Your child will perform dissections and cool biology experiments/activities.

Marine Animals: Amazing Waterworld! (Part II)

Come and join this fun and hands-on biology workshop for kids! Learn about many marine animals, from sharks, octopus, sea anemone, crabs, and more. Your child will perform dissections and cool biology experiments and activities.

Microscopic World: What You Can't See May Surprise You!

Come and join this fun and hands-on biology workshop for kids! Learn about the living organisms that are very small and some we can't even see with our own eyes: bacteria in the environment and food, protozoa, sea monkeys, yeast and more. Get up close and personal with live organisms using a microscope on some topics and perform cool biology experiments on the others.

Microscopic World: What You Can't See May Surprise You! (Part II)

Come and join this fun and hands-on biology workshop for kids! Learn about the living organisms that are very small and some we can't even see with our own eyes: bacteria with antibiotic, cyanobacteria, virus, fungus, and more. Get up close and personal with live organisms using a microscope on some topics and perform cool biology experiments on the others. No need to take the first Microscopic World class to join this one.



Biology. Kids. Hands-on. Fun.

Bionerds, Inc
PO BOX 81004
Rancho Santa Margarita, CA 92688

(949) 288-1486
hello@bionerdsllc.com
www.bionerdsllc.com

Bionerds After-School Programs (*continued*)

(One-hour weekly class for 6-10-week session)

Mix and Match Biology

Come and join this fun and hands-on biology workshop for kids! These mix and match topics are not related, but very interesting to learn. Learn about food biology, digestion system, worms, beetles, and water creatures. Your child will get up close and personal with live organisms, perform dissections and cool biology experiments/activities.

Mix and Match Biology (Part II)

Come and join this fun and hands-on biology workshop for kids! These mix and match topics are not related, but still interesting to learn. Learn about bacteria, turtles, genetic, mushrooms, snails and more. Your child will get up close and personal with live organisms, perform dissections and cool biology experiments/activities. No need to take the first Mix and Match Biology class to join this one.

Plants: Know Your Greens!

Come and join this fun and hands-on biology workshop for kids! Learn about amazing plants and trees on their photosynthesis ability, seed germination, anatomy and cell/DNA structures, and more. Your child will perform cool biology experiments and activities.



Biology. Kids. Hands-on. Fun.

Bionerds, Inc
PO BOX 81004
Rancho Santa Margarita, CA 92688

(949) 288-1486
hello@bionerdsllc.com
www.bionerdsllc.com

Bionerds Weekly Camps

(Monday-Friday, Half-Day and Full-Day camps)

Camping Science: Connecting with Nature – NEW! SPRING 2020

Come and join us as we cover topics to help your child recognize and appreciate the living world just outside their window. We will discuss camping-related topics and local wildlife one might encounter to the importance of preserving our ecosystem. What plants are harmful or used for medicinal purposes? What animals we may see outdoor? Find out in our classes geared towards the outdoor explorer!

Decomposers: Earth's Best Friends!

Come and join this fun and hands-on biology workshop for kids! Learn why and how these organisms, from worms, beetles, crustaceans, and more, are called Earth's best friends. Your child will be up close and personal with the live organisms on some topics and/or perform dissections, cool biology experiments on the other using lab equipment/tools.

Dinosaurs: Fantastic Pre-historic World!

Dinosaurs ruled the earth for 180 million years. Your child will learn the role each of the major types of dinosaurs played in their ecosystems, and the traits that made them such successful organisms for so long. Your child will do cool paleontological experiments & activities and learn about biological processes.

Food Science: Your Food is Alive! – NEW! Fall 2019

Come and join us as we learn about the amazing world of food science! We will discuss how some living organisms are responsible for making some of the foods we love such as cheese, yogurt, bread, and more. Get up close with live organisms using a microscope and perform cool biology experiments/activities. Some of these foods are to take home! No nuts in class but please indicate allergies if any.

Forensic Science: Bionerds' Way!

Come and join the fun to become a Forensic Scientist – Bionerds way! Your child will learn forensic and biology techniques, experiment and activities to further deductive reasoning to uncover the truth following in the footsteps of Sherlock Holmes and Scotland Yard. Topics will include fingerprinting, DNA, trace evidence, wildfire forensic, and more.

Halloween Science with Boo-ionerds! – NEW! Fall 2019

Trick or treat! Come and join us on a journey where we learn about some creepy and crawly topics of the Halloween season. From animals like bats and spiders to things like bones and pumpkins, there's a class for everyone to get into the Halloween spirit. Your child will be up close and personal with the live organisms and perform dissections, cool biology experiments using lab equipment/tools.



Biology. Kids. Hands-on. Fun.

Bionerds, Inc
PO BOX 81004
Rancho Santa Margarita, CA 92688

(949) 288-1486
hello@bionerdsllc.com
www.bionerdsllc.com

Bionerds Weekly Camps (*continued*)

(Monday-Friday, Half-Day and Full-Day camps)

Human Body: From Head to Toes!

Come and join this fun and hands-on biology workshop for kids! Learn about how amazing your body is and how its systems work, from your brain to your skin. Your child will be up close and personal with fresh/preserved organs and/or perform dissections/cool biology experiments on the other using lab equipment/tools.

Insects: Bug Me if You Dare!

Come and join this fun and hands-on biology workshop for kids! Learn about the amazing bugs around us such as beetles, butterflies, fruit flies, micro-arthropods, ladybugs, grasshoppers, and more. Get up close and personal with live bugs using a microscope on some topics and perform cool biology experiments on the others.

It's All About Life!

Come and join this fun and hands-on biology workshop for kids! Learn about the amazing life around you, from decomposers, insects, plants, human, microorganisms, genetics, and many more. Your child will be up close and personal with the live organisms and perform dissections and cool biology experiments using lab equipment/tools.

Land and Water Creatures

Come and join this fun and hands-on biology workshop for kids! Learn about the land and water creatures from lizard, frog, sea urchin, stingray, and more. Your child will be up close and personal with the live/preserved organisms and/or perform dissections and cool biology experiments using lab equipment/tools.

Let's Dive into the Ocean!

Come and join this fun and hands-on biology workshop for kids! Learn about the amazing marine animals from the tiny planktons, starfish, to the great white sharks, and many more. Your child will be up close and personal with the live/preserved/fresh organisms and/or perform dissections/cool biology experiments using lab equipment/tools.

Microscopic World: What You Can't See May Surprise You!

Come and join this fun and hands-on biology workshop for kids! Learn about the living organisms that are very small and some we can't even see with our own eyes: bacteria in the environment and food, protozoa, sea monkeys, yeast and more. Get up close and personal with live organisms using a microscope on some topics and perform cool biology experiments on the others.



Bionerds, Inc
 PO BOX 81004
 Rancho Santa Margarita, CA 92688

(949) 288-1486
 hello@bionerdsllc.com
 www.bionerdsllc.com

Biology. Kids. Hands-on. Fun.

Bionerds Topics List			
(*Dissection included. # Demo dissection included)			
Animal Kingdom	Aquatic Creatures	Bioengineering	Camping Science (SPRING 2020)
Birds#	Coral	Artificial Tissue	Animal Forensics
Frog*	Daphnia (Water Fleas)	Bioenergy	Camping Plants
Lizard*	Hydra	Environmental Engineering	Camping Insects
Mouse*	Lamprey*	Genetic Engineering	Human Effects of Camping
Salamander*	Leech*	GMO Plants	Water Bodies
Scorpions	Sea Urchin*	Laboratory Equipment	Survival/First Aids
Snails*	Stingray#	Prosthetic	All Things Night Camping
Snake#			Sun Power
			Local Environment/Habitat
			Backyard Biodiversity
Decomposers	Dinosaurs	Food Biology (FALL 2019)	Forensic Science
Bess Beetles	Are Birds Dinosaurs?	Sauerkraut	Animals
Decomposing Bacteria	Ornithischians	Tempeh and Fungus	Art and Photography
Meal Beetles	Prehistoric Aquatic Animals	Yogurt	Botany
Micro arthropods	Pterosaurs	Yeast	Dentistry
Millipedes	Rise of the Dinosaurs	Cheese	DNA Forensic
Mushrooms*	Sauropods	Taste	Fingerprinting
Snails*	Theropods	Bees and Honeys	General Forensic
Worms*		Food Coloring	Toxicology
		Food Nutrition	Trace Evidence
		Grocery Vegetables	Wildfire Forensic
		Ice cream	
		Sugar	
Genetics	Halloween Science (FALL 2019)	Insects	Microscopic World
DNA	Bats	Bess Beetles	Bacteria
Fruit Flies	Blood	Butterflies	Bacteria/Antibiotics
	Bones/Skeleton*	Crickets	Cyanobacteria
	Crows	Fruit Flies	Protist
	Eyeballs*	Grasshopper*	Tempeh and Fungus
	Owls	Ladybugs	Virus
	Potion and Slimes	Meal Beetles	Yeast
	Pumpkin and Acorn*	Micro arthropods	Yogurt
	Science of Autumn		
	Spiders		



Biology. Kids. Hands-on. Fun.

Bionerds, Inc
 PO BOX 81004
 Rancho Santa Margarita, CA 92688

(949) 288-1486
 hello@bionerdsllc.com
 www.bionerdsllc.com

Bionerds Topics List *(continued)*

(*Dissection included)

Human Body			
Bones*	Eyes*	Lungs*	Stomach*
Blood	Heart*	Muscles*	Taste*
Brain*	Kidneys*	Skin*	Thumbs/Fingerprints
Ears	Liver*	Smell	
Marine Organisms			
Brine Shrimps	Hermit Crabs	Sea Anemone*	Squids*
Clams*	Jellyfish*	Sea Cucumber*	Starfish*
Crabs*	Octopus*	Sharks*	Turtles
Fish*	Plankton	Shrimps*	
Plants			
Desert/Aquatic Plants*			
Photosynthesis			
Plant Structures*			
Plant Cells			
Seed Germination			
Thirsty Plants			