



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 12/3/18)

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.

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.
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.



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Bionerds After-School Programs (*continued*)

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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.

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.

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

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.



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Bionerds After-School Programs (*continued*)

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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.

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.



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Bionerds Weekly Camps (Monday-Friday, Half-Day and Full-Day camps)	
Decomposers: Earth's Best Friends!	
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Forensic Science: Bionerds' Way!	
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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.	



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Bionerds Weekly Camps (*continued*)

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

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 Topics List

*Dissection included

Animal Kingdom	Aquatic Creatures	Bioengineering	Decomposers
Birds*	Coral	Artificial Tissue	Bess Beetles
Scorpions	Daphnia (Water Fleas)	Bioenergy	Decomposing Bacteria
Snails*	Lamprey*	Environmental Engineering	Meal Beetles
Frog*	Leech*	Genetic Engineering	Micro arthropods
Lizard*	Sea Urchin*	GMO Plants	Millipedes
Mouse*	Stingray*	Laboratory Equipment	Mushrooms*
Salamander*		Prosthetic	Snails*
Snake*			Worms*



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Dinosaurs	Food Biology	Forensic Science	Genetics
Are Birds Dinosaurs?	Sauerkraut	DNA Forensic	DNA
Ornithischians	Tempeh and Fungus	Fingerprinting	Fruit Flies
Prehistoric Aquatic Animals	Yogurt	General Forensic	
Pterosaurs	Yeast	Toxicology	
Rise of the Dinosaurs		Trace Evidence	
Sauropods		Wildfire Forensic	
Theropods		Art and Photography	
		Botany	
		Dentistry	
Human Body			
Bones*	Eyes*	Lungs*	Stomach*
Blood	Heart*	Muscles*	Taste*
Brain*	Kidneys*	Skin*	Thumbs/Fingerprints
Ears	Liver*	Smell	
Insects	Microscopic World	Plants	
Bess Beetles	Bacteria	Desert/Aquatic Plants*	
Butterflies	Bacteria/Antibiotics	Photosynthesis	
Crickets	Cyanobacteria	Plant Structures*	
Fruit Flies	Protist	Plant Cells	
Grasshopper*	Tempeh and Fungus	Seed Germination	
Ladybugs	Virus	Thirsty Plants	
Meal Beetles	Yeast		
Micro arthropods	Yogurt		
Marine Animals			
Brine Shrimps	Hermit Crabs	Plankton	Shrimps*
Clams*	Hydra	Sea Anemone*	Squids*
Crabs*	Jellyfish*	Sea Cucumber*	Starfish*
Fish*	Octopus*	Sharks*	Turtles