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

Bionerds Curriculum

(Updated 5/9/2024)

Did you know hands-on activity is one of the best ways to learn, especially in the young minds? Bionerds is here to offer Biology workshops for kids from kindergarten to 8th grade. Our topics are vast and exciting to include insects, animals, humans, microorganisms, genetics, plants, and more.

Class Format

Each theme has several topics included. Each topic is about 45 minutes to one hour. We will give a short lecture on the topic, and the rest of the time will be exciting and hands-on activities for the students. The students will have up close personal experience with the organisms we learn, perform dissections (demo dissections for online programs) on some topics, and engage in biology experiments and activities.

Safety is a Priority

We educate Laboratory Safety training in the beginning of the class to students. Learning is more fun when everybody is safe. We provide Protective Personal Equipment (PPE) as needed below:

- Laboratory coats
- Gloves
- Goggles
- Mask

We adhere to guidelines recommended by the local government related to Coronavirus (COVID-19) pandemic for in-person programs. Please ask us for details at admin@bionerdsllc.com.

Our Teachers

Our teachers are so passionate in sharing their expertise. They have college degrees either in Biology or other related sciences/extensive field experiences. Some even have graduate degrees.

Contents List

- After-School Programs: Page 2-5 (GREEN)
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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 frogs, lizards, birds, and more. Your child will be up close with fresh/preserved organisms, perform many dissections, and engage in cool biology activities 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, jellyfish, and more. Your child will be up close with fresh/preserved organisms, perform many dissections, and engage in cool biology activities using lab equipment/tools.

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 prosthetics, medical equipment, genetic modification, bioenergy, and more! Your child will be exposed to engineering concepts related to biology and perform cool biology activities.

Camping Science: Connecting with Nature

Come and join our exciting hands-on workshop to help your child recognize and appreciate the living world just outside their window. We will discuss camping-related topics, such as wildlife, survival, sun power, rocks and more. Your child will be up close with live/preserved organisms and engage in cool camping-related activities.

Crawly Critters: No Jitters, Just Awe!

Come and join our exciting hands-on workshop as we look into the world of crawly critters and satisfy your curiosity about praying mantises, crawfish, slugs, and more. Your child will be up close with live/fresh/preserved organisms, perform some dissections, and biology activities using lab tools/equipment.

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 with live/preserved organisms, perform some dissections, and engage in cool biology activities using lab equipment/tools.

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Bionerds AFTER-SCHOOL Programs

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

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 activities and learn about biological processes.

Food Science: Your Food is Alive!

Come and join us as we learn about the amazing world of food science! We will discuss how some living organisms related to foods such as cheese, honey, bread, and more. Learn the science of sugar, food coloring, nutrition, and more. Your child will be up close with live/fresh organisms/food and engage in cool biology 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, experiments, 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, dental forensic, and more.

Gardening Science: Nurture Your Mind and Stems!

Do you have a child that loves being outside or in the backyard? Join our fun hands-on workshops about the science behind gardening! Learn about soil science, plant science, garden insects, and more! Be up close with live plants and critters in our gardening-related activities and experiments.

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 be up close with fresh/preserved specimens, perform many dissections, and engage in cool biology activities using lab equipment/tools.

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 be up close with fresh/preserved animal organs, perform many dissections, and engage in cool biology activities using lab equipment/tools. No need to take Human Body Part I to take this class.

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Bionerds AFTER-SCHOOL Programs

(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, ladybugs and more. Your child will be up close with live/preserved bugs and perform cool biology activities.

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 grasshoppers, mealworm beetles, and more. Your child will be up close with live/preserved bugs and perform cool biology activities. No need to take Insects Part I to take this class.

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, humans, microorganisms, genetics, and more. Your child will be up close with the live/fresh/preserved organisms and specimens, perform some dissections, and engage in cool biology experiments using lab equipment/tools.

Junior Doctors!

Come and join this fun and hands-on biology workshop for kids! Learn about the incredible world of medicine and medical research! Your child will learn about cardiology, veterinary medicine, neurology and more! Each class will highlight a career in the medical field. Your child will be up close to the fresh/preserved specimens, perform some dissections, and engage in cool biology experiments 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 sea stars, fish, clams, shrimp, and more. Your child is up close with fresh/preserved organisms, perform many dissections and engage in 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, and more. Your child is up close with fresh/preserved organisms, perform many dissections and engage in cool biology experiments/activities. No need to take Marine Animals Part I to take this class.

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Bionerds AFTER-SCHOOL Programs

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

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 and perform cool biology experiments/activities.

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, fungi, and more. Get up close and personal with live organisms using a microscope and perform cool biology experiments/activities. No need to take the Microscopic World Part I to take this class.

Mix and Match Biology

Come and join this fun and hands-on biology workshop for kids! Learn about food biology, digestion systems, worms, beetles, and water creatures. Your child will get up close with live/fresh/preserved specimens, perform some dissections, and engage in cool biology experiments/activities.

Mix and Match Biology (Part II)

Come and join this fun and hands-on biology workshop for kids! Learn about bacteria, turtles, genetics, mushrooms, snails and more. Your child will get up close and personal with live/fresh/preserved specimens, perform some dissections, and engage in cool biology experiments/activities. No need to take the Mix and Match Biology Part I to take this class.

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.

Spooky Science with Boo-ionerds!

Come and join us on a journey where we learn about some creepy and crawly topics, from animals like bats and spiders to things like skeletons. Your child will be up close and personal with the live/fresh/preserved organisms, perform some dissections and engage in cool biology experiments using lab equipment/tools.

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Bionerds WEEKLY CAMPS

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

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 prosthetics, medical equipment, genetic modification, bioenergy, and more! Your child will be exposed to engineering concept related to biology and perform cool biology activities.

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Bionerds WEEKLY CAMPS

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Gardening Science: Nurture Your Mind and Stems!

Do you have a child that loves being outside or in the backyard? Join our fun hands-on workshops about the science behind gardening! Learn about soil science, plant science, garden insects, and more! Be up close with live plants and critters in our gardening-related activities and experiments.

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 with fresh/preserved organs, perform many dissections, and engage in cool biology experiments 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, ladybugs, grasshoppers, and more. Get up close with live/preserved bugs 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/fresh/preserved organisms or specimens, perform some dissections, and engage in cool biology experiments using lab equipment/tools.

Junior Doctors

Come and join this fun and hands-on biology workshop for kids! Learn about the incredible world of medicine and medical research! Your child will learn about cardiology, veterinary medicine, neurology and more! Each class will highlight a career in the medical field. Your child will be up close to the fresh/preserved specimens, perform some dissections, and engage in cool biology experiments using lab equipment/tools.

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Bionerds WEEKLY CAMPS

(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 lizards, frogs, sea urchin, stingray, and more. Your child will be up close with fresh/preserved organisms, perform many dissections, and engage in 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, sea stars, to the great white sharks, and many more. Your child will be up close with the live/preserved/fresh organisms, perform many dissections, and engage in 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 microscopic world, such as bacteria, protozoa, sea monkeys, yeast and more. Your child will be up close and personal with the live organisms using a microscope and perform cool biology experiments using lab equipment/tools.

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 interesting to learn. Learn about food biology, digestion system, decomposers, water creatures, and more. Your child will be up close with live/preserved organisms, perform some dissections and engage in cool biology experiments/activities.

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.

Spooky Science with Boo-ionerds!

Come and join us on a journey where we learn about some creepy and crawly topics, from animals like bats and spiders to things like skeletons. Your child will be up close and personal with the live/fresh/preserved organisms, perform some dissections and engage in cool biology experiments using lab equipment/tools.

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Bionerds ONLINE Programs

(Multiple of 45-minute to 2-hour classes or camps)

Bioengineering ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Learn how to design and create something to improve life itself, such as prosthetics, biomimicry, genetic engineering, and more! Your child will be exposed to engineering concepts related to biology and perform cool biology activities. A simple supply list to gather will be provided before class, but not required to have to join the class.

Bugs ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Learn about amazing bugs around you, such as beetles, grasshoppers, millipedes, and more. Live/preserved bugs will be presented online. A simple supply list to gather will be provided before class, but not required to have to join the class.

Camping Science ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Learn about wildlife, survival, all-things-night camping, and more. Your child will do cool and interactive camping-related activities LIVE online with our teacher. A simple supply list to gather will be provided before class, but not required to have to join the class.

Dinosaurs ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! 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 and interactive paleontological activities LIVE online with our teacher. A simple supply list to gather will be provided before class, but not required to have to join the class.

Food Science ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Your child will learn how food is science. Plant your own vegetables and make your own food such as yogurt and ice cream LIVE online with our teacher. A simple supply list to gather will be provided before class, but not required to have to join the class.

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Bionerds ONLINE Programs

(Multiple of 45-minute to 2-hour classes or camps)

Forensic Science ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Your child will learn about forensic and biology techniques, experiments, and activities to further deductive reasoning to uncover the truth. Topics will include fingerprinting, dentistry, wildlife, art and photography, and more. A simple supply list to gather will be provided before class, but not required to have to join the class.

Human Body ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Learn about how the human body works. Your child will follow our teacher perform demo dissection LIVE online on preserved/fresh specimens, such as heart, eyes, brain, and more. A simple supply list to gather will be provided before class, but not required to have to join the class.

Junior Doctors ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Learn about the incredible world of careers in medicine and medical research, such as cardiology, veterinary medicine, neurology and more! Your child will follow our teacher perform demo dissection LIVE online on preserved/fresh specimens. A simple supply list to gather will be provided before class, but not required to have to join the class.

Land Water ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Learn about frogs, coral, scorpions, lizard, and more. Your child will follow our teacher perform demo dissection LIVE online on preserved/fresh specimens. A simple supply list to gather will be provided before class, but not required to have to join the class.

Let's Dive into the Ocean ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Learn about sharks, octopus, stingray, and more. Your child will follow our teacher perform demo dissection LIVE online on preserved/fresh specimens. A simple supply list to gather will be provided before class, but not required to have to join the class.

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Bionerds ONLINE Programs

(Multiple of 45-minute to 2-hour classes or camps)

Plants ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Learn about plant structures and cells, photosynthesis, seed germination and more. We will guide your child to dissect and grow plants and do cool biology activities. A simple supply list to gather will be provided before class, but not required to have to join the class.

Spooky Science ONLINE Session

Come and join our LIVE and fun INTERACTIVE online biology workshop for kids! Learn about some creepy and crawly topics, from animals like bats and spiders to things like skeletons. Live/preserved bugs and cool biology activities will be presented online for your child to see and follow. A simple supply list to gather will be provided before class, but not required to have to join the class.

Bionerds PARENT & ME Programs

(Multiple of 45-minute classes)

Parent & Me: Fossils Adventure

Dig into the past with your little one in our biology fossil and rock science class! Together, you will perform biology activities to explore ancient dinosaurs, fossils, rock science and more! Limit one parent/guardian per child in the classroom.

Parent & Me: Spooky Science Fun

Join your little one for a spooky biology adventure! You will explore "creepy" biology with hands-on fun together—discover pumpkins, wiggly millipedes, skeletons and more. Your child will be up close with live organisms and perform biology activities. Limit one parent/guardian per child in the classroom.

Parent & Me: Spring Time Hands-On with Bionerds!

Looking to explore the wonders of biology with your little one in a fun, hands-on way? Build new memories as you dive into springtime science together! Be up close with live organisms and perform biology activities to learn about worms, beetles, seed germination, and more! Limit one parent/guardian per child in the classroom.

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Bionerds Topics List							
(*Dissection activity # Demo dissection/Internal anatomy observation + Live organism in class)							
Animal Kingdom	Aquatic Creatures	Bioengineering	Camping Science				
Birds #	Coral	Artificial Tissue	Animals/Wildlife				
Frog *#	Daphnia (Water Fleas) +	Bioenergy	Camping Insects +				
Lizard *	Hydra +	Biomimicry	Camping Plants +				
Mice *	Jellyfish #	Environmental	Human Effects				
Salamander *	Lamprey #	Engineering	Local Habitat				
Scorpions	Leech *	Genetic Engineering	Night Experiences				
Snails *+	Sea Urchin *#	GMO Plants	Rocks				
Snake #	Stingray #	Laboratory	Sun Power				
		Equipment	Survival/First Aids				
		Medical Device	Water Bodies				
		Prosthetics					
		Renewable Energy					
Crawly Critters	Decomposers	Dinosaurs	Food Biology				
Aquatic Arthropods+	Bess Beetles +	Birds are Dinosaurs	Bees and Honeys				
Crawfish*	Decomposing Bacteria +	Extinction Event	Cheese +				
Criminal Critters (Invasive	Extreme Decomposers +	Life after Dinosaurs	Food Coloring				
Organisms)	Meal Beetles +	Living Fossils	Food Nutrition				
Cryptic Insects	Micro arthropods +	Ornithischians	Grocery Vegetables +				
Dragonflies/Damselflies	Millipedes +	Prehistoric Aquatic	Ice cream				
Flies+	Mushrooms *+	Animals +	Sugar				
Mosquitos	Snails *+	Pterosaurs	Taste *				
Praying Mantis	Soil Science +	Rise of the	Yeast +				
Slugs+	Worms *+	Dinosaurs	Yogurt +				
Springtails+		Sauropods					
		Theropods					
Forensic Science	Gardening Science	Genetics	Human Body				
Animals	Aquatic Garden +	DNA	Blood	Lungs *			
Art Photography	Edible Garden +	Fruit Flies +	Bones *	Muscles *			
Botany	Flowers to Fruits +	Pumpkin *	Brain *	Skin *			
Dentistry	Garden Friends/Critters +		Ears	Smell			
DNA Forensic	Garden Seeds + Garden Soil		Eyes *	Stomach *			
Fingerprinting	Garden Succulents +		Heart *	Taste *			
General Forensic	Growing Tips 101B +		Kidneys *	Thumbs/Fingerprints			
Toxicology	Guide to Gardening 101A		Liver *				
Trace Evidence	Native Garden +						
Wildfire Forensic							

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Bionerds Topics List							
(*Dissection included # Demo dissection/Internal anatomy observation included + Live organism may be included)							
Insects	Junior Doctors	Marine/Aquatic Creatures		Microscopic World			
Ants +	Cardiology *	Brine Shrimps +		Bacteria +			
Bess Beetles +	Dentistry	Clams *		Bacteria Antibiotics +			
Butterflies +	Neurology *	Crabs *		Brine Shrimps +			
Crickets +	Oncology	Fish *		Cyanobacteria +			
Fruit Flies +	Optometry/Opthalmolo	Hermit Crabs +		Protist +			
Grasshopper*	gy	Jellyfish *		Sauerkraut +			
Ladybugs +	Pathology	Octopus *		Tempeh/Fungi +			
Meal Beetles +	Pharmacy	Plankton +		Virus			
Micro-arthropods +	Physical Therapy	Sea Anemone *		Yeast +			
Moth +	Surgery	Sea Cucumber *		Yogurt +			
	Veterinary	Sharks *#					
		Shrimps *					
		Squids *					
		Starfish #					
		Turtles #					
Plants	Spooky Science						
Aquatic Plants *	Autumn Science						
Desert Plants *	Bats						
Photosynthesis	Blood						
Plant Cells	Crows						
Plant Structures *+	Eyeballs*						
Seed Germination +	Owls*						
Thirsty Plants	Potion						
	Pumpkin*						
	Skeletons*						
	Spiders +						
Parent & Me: Fossils Adventure		Parent & Me: Spooky	Pare	nt & Me: Spring Time			
		Science Fun	Hand	ds-On with Bionerds!			
Extinction of the Dinosaurs B		Bats	Bess Beetles +				
Rise of the Dinosaurs B		lood Ladyb		ugs +			
Rocks		Millipede +	lillipede + Seed G				
		Pumpkin *	-				
		Skeleton *					