| | Kinder - 2nd | | 3rd - 5th | | Robotics | | Programming | | Specialty | |
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| | Title | Description | Title | Description | Title | Description | Title | Description | Title | Description |
| week 1 | **Forensics 1** | DNA makes us unique, so forensics takes the pieces of the "human" puzzle like fingerprints, skin, teeth, and hair to solve unique mysteries! Forensics camp participants will gather evidence, learn forensic science techniques, and employ the scientific method to be a "crime scene investigator". They will learn about different disciplines within the field, such as forensic anthropology, odontology, entomology, pathology, biology, and criminalistics like chromatography, fingerprinting, and footwear analysis. **Sample Activities:** Prints and Marks, No Bones about it, Eye witness challenges | **Chemistry** | Cook up some fun in iTEC's chemistry lab! Explore the basics of chemistry with demonstrations, hands-on activities, and science experiments while learning about acids and bases, the periodic table, matter, non-Newtonian fluids, and chemical reactions! **Sample Activities: Gummy Osmosis,** Adopt an element, Cookie Molecules, Stomach Challenge | **3rd - 5th: EV3 Robotics - It's Alive!** | Join iTEC for a weird robotic experience. You created Frankenbot from old scavenged robot parts and sensors. But something has gone wrong....You and your scientific team will program Frankenbot to help him navigate through the city while using his "borrowed" sensors to escape the angry mob. You and your team must think fast, time is something you are short on. **Sample Activities:** EV3 Robotic platform | **6th - 8th: Sphero** | Will your algorithm get you through the maze? By working in teams students will need to gather data and program Sphero to solve different S.T.E.A.M. related challenges. By the end of the camp students will understand what is an algorithm and its relevance to real life by working with blocks programing. **Sample Activities:** S.T.E.A.M. Challenges, Macro Lab Lessons, Bridge Challenge | | |
| | **Space Science 1** | From Earth's atmosphere to the outer reaches of our solar system, this hands-on program sends children on an intergalactic quest of exploration! **Sample Activities:** Space Food, phases of the moon, Edible solar System | | | | | | | | |
| week 2 | **Chemistry 1** | Cook up some fun in iTEC's chemistry lab! Explore the basics of chemistry with demonstrations, hands-on activities, and science experiments while learning about acids and bases, the periodic table, matter, non-Newtonian fluids, and chemical reactions! **Sample Activities:** Engineering with the periodic table, Stomach challenge, Polymer fun | **Engineering Physics** | Go Go Gadgets! Do you ever just scratch your head and ask yourself how did it do that? Join us as we explore the different branches of engineering to discover how some of our everyday gadgets and electronic work. Help disassemble and reassemble your own gadgets, and simple machines. Found out how things work and explain it to your friends and family. **Sample Activities:** Mechanical Engineering Day, Biomedical engineering day | **6th - 8th: EV3 Robotics - Exploring Physics** | Build up your skills in technology, mathematics, and engineering in iTEC's robotics class! Using the LEGO Mindstorms EV3 robotics system, students will work in small groups to brainstorm ideas for solving a design challenge, and then build, program, and test their model to evaluate how well it worked. As they are learning and having fun, students are applying science, technology, and mathematics skills while developing technical language and other communication skills working with their team. **Sample Activities:** EV3 Robotic platform | **3rd - 5th: Sphero** | Will your algorithm get you through the maze? By working in teams students will need to gather data and program Sphero to solve different S.T.E.A.M. related challenges. By the end of the camp students will understand what is an algorithm and its relevance to real life by working with blocks programing. **Sample Activities: S.T.E.A.M. Challenges, Macro Lab** Lessons, Bridge Challenge | | |
| | **WeDo 1** | Roooar! Hear that? That's the sound of the jungle animals in iTEC's robotics camp! Don't worry, there aren't any actual animals, but there are a lot of robots! Have your child learn about robotics using We-Do kits while discovering the hidden worlds of animals! Sample Activities: Animal Builds, Jungle Importance, campus tour | | | | | | | | |
| week 3 | **Weather** | Seasons are as old as the earth. We tell time by them, plan our calendar around them and look forward to the changes they bring. But where do seasons come from? Join the iTEC weather detectives as you investigate and discover the amazing impact of weather and climate changes. **Sample Activities:** Seasonal fun: Our Star! Rain painting, Leaf chromatography | **Forensics 1** | DNA makes us all unique, so forensics takes the pieces of the "human" puzzle like fingerprints, skin, teeth, and hair to solve unique mysteries! Forensics camp participants will gather evidence, learn forensic science techniques, and employ the scientific method to be a "crime scene investigator". They will learn about different disciplines within the field, such as forensic anthropology, odontology, entomology, pathology, biology, and criminalistics like chromatography, fingerprinting, and footwear analysis. **Sample Activities:** Eye Witness challenges. Fiber/Hair analysis, Tire & Tool mark challenge | **3rd - 5th: EV3 Robotics - Maze Runners** | Can you find your way out on time? Use algorithms to move your robot through different mazes and find the exit. Build and program your robots by working in teams to be able to solve the challenges. **Sample Activities:** EV3 Robotic platform | **9th - 12th: Arduino** | Time to learn Programming, this summer learn something new and useful. ARDUINO programming is the best way to make your own robot. Program it ---> Run it---> Learn it. **Sample Activities:** Arduino Projects: Knock Lock | **6th - 8th: Biomedical Engineering** | Biomedical engineering week incorporates and encapsulates simple and basic concepts of the interdisciplinary field of Biomedical engineering in medicine. Follow us through a mini crash course that touches on cell structures in Biology, the future of man-made or natural materials in Biomaterials, understanding human body mechanics in Biomechanics, as well as the super tiny world of atoms and molecules in Nanotechnology! **Sample Activities:** |
| | **WeDo 2** | Discover amazing animals and creatures as you take a trip with iTEC through the wild robotic jungle. In this camp you will have hours of fun building and programming robotic animals that crawl, dance and sing. But you better watch your step, that alligator can be quit snippy! Join iTEC for a roaring robotic adventure. **Sample Activities:** Animal Builds | | | | | | | | |
| week 4 | **Geology 1** | Are you ready to Rock!! Be an amateur geologist taking a journey from the center of the Earth to volcanoes, mountains, and oceans! In geology camp, students participate in first-hand observation and learn about the stuff the Earth is made of. **Sample Activities:** Geologic time, grassy catapillers, rock cycle | **Weather** | Whether it's cold or whether it's hot; we shall have weather, whether or not!" Join the iTEC weather detectives as you investigate and discover the amazing impact of weather and climate changes. Learn what it takes to predict the weather and build your own weather station to take home! **Sample Activities:** Climate/ Biome Day, weather instruments | **9th - 12th: EV3 Robotics - Flippin' Out** | Build up your skills in technology, mathematics, and engineering in iTEC's robotics class! Using the LEGO Mindstorms EV3, learn more about programming motors and sensors to make robots move, measure, and navigate. This course will help you think like a programmer and utilize user-friendly software to make robots carry out specific commands, as well as learning about structure and modular construction to build a rigid robot. This class provides an opportunity to explore computer science and robotics in a stimulating way! **Sample Activities:** EV3 Robotic platform | **3rd - 5th: Sphero** | Will your algorithm get you through the maze? By working in teams students will need to gather data and program Sphero to solve different S.T.E.A.M. related challenges. By the end of the camp students will understand what is an algorithm and its relevance to real life by working with blocks programing. **Sample Activities:** S.T.E.A.M. Challenges, Macro Lab Lessons, Bridge Challenge | | |
| | **Life Science 1** | Is it alive? Come explore what makes living organism unique. Discover how can you classify organism as scientist do. By conducting investigations and creating models students will acquire a better understanding of the dynamic relationships among organisms. **Sample Activities:** Living vs. Nonliving | | | | | | | | |
| week 5 | **Forensics 2** | DNA makes us unique, so forensics takes the pieces of the "human" puzzle like fingerprints, skin, teeth, and hair to solve unique mysteries! Forensics camp participants will gather evidence, learn forensic science techniques, and employ the scientific method to be a "crime scene investigator". They will learn about different disciplines within the field, such as forensic anthropology, odontology, entomology, pathology, biology, and criminalistics like chromatography, fingerprinting, and footwear analysis. **Sample Activities:** Chromatohgraphy, Micro-challenges, Solve the crime! | | | | | | | **3rd - 5th: Biomedical Engineering** | Biomedical engineering week incorporates and encapsulates simple and basic concepts of the interdisciplinary field of Biomedical engineering in medicine. Follow us through a mini crash course that touches on cell structures in Biology, the future of man-made or natural materials in Biomaterials, understanding human body mechanics in Biomechanics, as well as the super tiny world of atoms and molecules in Nanotechnology! **Sample Activities:** |
| | **Space Science 2** | Comets, planets, stars and more await our budding Astronauts. Join iTEC's space program as we prepare for an outer space voyage! **Sample Activities:** Galactic Model, Space food, Lunar Prospector | | | | | | | | |
| week 6 | **Chemistry 2** | Cook up some fun in iTEC's chemistry lab! Explore the basics of chemistry with demonstrations, hands-on activities, and science experiments while learning about acids and bases, the periodic table, matter, non-Newtonian fluids, and chemical reactions! **Sample Activities:** Density challenges, Messing with Mixtures, water balls | **Life Science** | Is it alive? Come explore what makes living organism unique. Discover how can you classify organism as scientist do. By conducting investigations and creating models students will acquire a better understanding of the dynamic relationships among organisms. **Sample Activities:** Biomimicry: Natural Design | **3rd - 5th: EV3 Robotics - Flippin' Out** | Build up your skills in technology, mathematics, and engineering in iTEC's robotics class! Using the LEGO Mindstorms EV3, learn more about programming motors and sensors to make robots move, measure, and navigate. This course will help you think like a programmer and utilize user-friendly software to make robots carry out specific commands, as well as learning about structure and modular construction to build a rigid robot. This class provides an opportunity to explore computer science and robotics in a stimulating way! **Sample Activities:** EV3 Robotic platform | **6th - 8th: Sphero** | Will your algorithm get you through the maze? By working in teams students will need to gather data and program Sphero to solve different S.T.E.A.M. related challenges. By the end of the camp students will understand what is an algorithm and its relevance to real life by working with blocks programing. **Sample Activities:** S.T.E.A.M. Challenges, Macro Lab Lessons, Bridge Challenge | | |
| | **Programming 1** | At this introductory coding camp you will become familiarize with the concepts used by computer scientist. On this blended experience with online and "unplugged" activities. You will create and use algorithms to solve everyday task. Sample Activities: Code Studio, Happy maps: Create algorithms to move a character to a maze | | | | | | | | |
| week 7 | **Weather 2** | Learning about weather is in your forecast with iTEC's weather day camp! Become a meteorologist by making a wind vane, a rainbow, and a cloud of your own! Campers will learn about types of clouds, weather systems, light, and temperature and have fun doing activities focused on the environment around us! **Sample Activities:** De-constructing clouds, rainbow snakes, build-a-mometer | **Space Science** | From Earth's atmosphere to the outer reaches of our solar system, this hands-on program sends children on an intergalactic quest of exploration! Comets, planets, stars and more await our budding Astronauts. Join iTEC's space program as we prepare for an outer space voyage! **Sample Activities:** Spectrometers, Happy Landings | **6th - 8th: EV3 Robotics - Flippin' Out** | Build up your skills in technology, mathematics, and engineering in iTEC's robotics class! Using the LEGO Mindstorms EV3, learn more about programming motors and sensors to make robots move, measure, and navigate. This course will help you think like a programmer and utilize user-friendly software to make robots carry out specific commands, as well as learning about structure and modular construction to build a rigid robot. This class provides an opportunity to explore computer science and robotics in a stimulating way! **Sample Activities:** EV3 Robotic platform | **3rd - 5th: Sphero** | Will your algorithm get you through the maze? By working in teams students will need to gather data and program Sphero to solve different S.T.E.A.M. related challenges. By the end of the camp students will understand what is an algorithm and its relevance to real life by working with blocks programing. **Sample Activities:** S.T.E.A.M. Challenges, Macro Lab Lessons, Bridge Challenge | | |
| | **Programming 2** | You will learn the fundamentals on how to create computer programs with loops, and events and write algorithms to create your own custom game or story that they can share. On this camp you will learn to collaborate with others meaningfully, investigate different problem-solving techniques, persist in the face of difficult tasks, and learn about Internet safety. . Sample Activities: Code studio, Spelling Bee: Write a program that moves a Bee around a grid of letters. | | | | | | | | |
| week 8 | **Geology 2** | From learning about plate tectonics and coal mining, Texas has a lot of rich history! Take a geological journey with iTEC as we explore the state of Texas and discover the many minerals, resources and geological features that make this state great! **Sample Activities:** Geology Mining, Skittle dating, Volcanology | **Forensics 2** | DNA makes us all unique, so forensics takes the pieces of the "human" puzzle like fingerprints, skin, teeth, and hair to solve unique mysteries! Forensics camp participants will gather evidence, learn forensic science techniques, and employ the scientific method to be a "crime scene investigator". They will learn about different disciplines within the field, such as forensic anthropology, odontology, entomology, pathology, biology, and criminalistics like chromatography, fingerprinting, and footwear analysis. Sample Activities: DNA extraction, Blood typing, No Bones about it | **3rd - 5th: EV3 Robotics - Exploring Physics** | Build up your skills in technology, mathematics, and engineering in iTEC's robotics class! Using the LEGO Mindstorms EV3 robotics system, students will work in small groups to brainstorm ideas for solving a design challenge, and then build, program, and test their model to evaluate how well it worked. As they are learning and having fun, students are applying science, technology, and mathematics skills while developing technical language and other communication skills working with their team. **Sample Activities:** EV3 Robotic platform | **6th - 8th: Sphero** | Will your algorithm get you through the maze? By working in teams students will need to gather data and program Sphero to solve different S.T.E.A.M. related challenges. By the end of the camp students will understand what is an algorithm and its relevance to real life by working with blocks programing. **Sample Activities:** S.T.E.A.M. Challenges, Macro Lab Lessons, Bridge Challenge | | |
| | **Life Science 2** | Is it alive? Come explore what makes living organism unique. Discover how can you classify organism as scientist do. By conducting investigations and creating models students will acquire a better understanding of the dynamic relationships among organisms. **Sample Activities:** Ecosystem Dynamics | | | | | | | | |