

Engaging Youth in Engineering Camp Schedule
July 13-17, 2009

Monday		
8:30-11:30	Dodge Elementary School	<ul style="list-style-type: none"> • Math activity, “Say What You Mean and Mean What You Say” – Campers use spatial and communication skills to construct a picture based on verbal directions only. • Meet a child from Australia through literature – <i>A Reminder for Emily</i> – to learn about the concept of electricity and the field of electrical engineering. • Alabama Power Company activity, “Power it Up!” – Campers evaluate how power affects an electromagnet by making an electromagnet • Electrical Technologies Scavenger Hunt, “It’s Electric” – Campers identify electrical technologies and then sort them by their function.
12:00-2:20	Exploreum	<ul style="list-style-type: none"> • Explore the Exploreum – tour exhibits – Hands On Hall, Minds On Hall and My BodyWorks • Alabama Power Special Guest Speaker – Safe-T-Opolis – 3D model showing power/electrical safety - Exploreum Classroom
Tuesday		
8:30-11:30	Barry Steam Plant	<ul style="list-style-type: none"> • Field Trip to Barry Steam Plant.
12:00-2:20	Exploreum	<ul style="list-style-type: none"> • Exploreum Classroom: Electrical Engineering activity, “Representing Circuits” – Campers examine open and closed circuits using wires, bulbs, batteries and switches; campers learn symbols used in schematic diagrams, create schematic diagrams of circuits and build a circuit from a schematic drawing. • My BodyWorks Health Hall Scavenger Hunt – answer questions about medical technology as they explore My BodyWorks Health Hall • Ciba Science Lab Liquid Power Demo by Tim Pula, Ciba Lab Director - illustrates the use of ions to facilitate current flow using wires, a light bulb, water, ions (acids and bases) and a switch; concepts: conductivity, complete circuits and electrochemical properties – Minds On Hall.
Wednesday		
8:30-11:30	Dodge Elementary School	<ul style="list-style-type: none"> • Math activity, “Stem and Leaf Plot” – Campers compare the characteristics of data to make decisions using their pulse rates. • Alabama Power Company activity, “Dancing Doll” – Campers make an electromagnet and design a doll using paper clips; they will then use the electromagnet to make their doll “dance.” • Art activity, “Basic Shapes and Schematics” – Special Guest Art Teacher will demonstrate how engineers draw to communicate; campers will learn to draw electrical circuit schematics. • Math activity, “If You Hopped Like a Frog” – Campers use proportional reasoning to answer questions about various Australian animals (Example: A kangaroo hops 4 times its body length, if you were a kangaroo how far could you hop?)
12:00-2:20	Exploreum	<ul style="list-style-type: none"> • Exploreum Classroom Electrical Engineering activity, “Designing an Alarm Circuit” – use the first steps of the Engineering Design Process to design an alarm circuit – “Ask” about the problem, “Imagine” different solutions and “Plan” their designs. • My BodyWorks BeHealthy Stations – Campers participate in fitness activities throughout the exhibit hall; at the end of their time, they receive a printed version of their results. • Minds On Hall Scavenger Hunt – Campers look for science, technology, engineering and math found in various exhibits located in Minds On Hall

Thursday		
8:30-11:30	Field Trip	<ul style="list-style-type: none"> • “Mobile is Wired!” field trip includes visits to White-Spinner Construction Co., Mobile’s only LEED (Leader in Energy and Environmental Design) certified building; Hargrove & Associates, Mobile’s largest engineering firm; and the Downtown Alliance where the campers interact with electrical engineers from ThyssenKrupp and examine their electrically-powered Segway. One group will be at each site for about 25 minutes from 9:00 – 10:45. At 11:00 AM, all campers will culminate the morning at the Press-Register and have an indoor picnic lunch while learning about the operation of their presses.
12:00-2:00	Exploreum	<ul style="list-style-type: none"> • Exploreum Classroom: Electrical Engineering activity, “Designing an Alarm Circuit – use the last steps of the Engineering Design Process to design an alarm circuit – “Create” an alarm circuit and “Improve” their original design. • My BodyWorks Health Hall: Biology Lab Demonstration by Melissa Dean, BioLab Director – Campers will see a pig heart and learn how an EKG (electrocardiogram) works. • Minds On Hall: Digital Theater Presentation – “Solar Storms and Flares” – shows Earth’s magnetosphere, how the sun can send huge amounts of energy that can break the magnetosphere and cause power outages.
Friday		
8:30-11:30	Dodge Elementary School	<ul style="list-style-type: none"> • Alabama Power Company activity, “Turn, Turn, Turn” – Campers make an electromagnet and bend wire to form a circle; they will then use the electromagnet to “turn” the wire circles. • Electric Song and Dance Practice • Pizza Lunch compliments of the Bedsole Foundation
12:00-1:00	Exploreum	<ul style="list-style-type: none"> • “<i>EYE Gets Wired!</i>” – A celebration and presentation of week’s program in IMAX Theater by campers. • Recognition of parents and special guests from Bedsole Foundation, AL Power, MCPSS, MAEF, Exploreum, USA, TK, etc.
1:00-1:45		<ul style="list-style-type: none"> • View <i>Living Seas</i> IMAX Film – IMAX Theater
1:45-2:00		<ul style="list-style-type: none"> • Treat for campers, parents and special guests in Exploreum Overlook (IMAX Theater Exit second floor)
2:00-2:30		<ul style="list-style-type: none"> • Explore the Exploreum – visit exhibit halls throughout the Exploreum