

Louisiana Camp Agenda

Grades 6-8

	Monday	Tuesday	Wednesday	Thursday
9:00 – 9:20	What is Science?	Introduction to Forensics, Invisible ink	Drop Lab Experience/Physical and Chemical Change	Space Capsule Drop
9:30 – 9:50			Drop Lab Experience/Physical and Chemical Change	
10:00-10:20	Micropipette Challenge	No Trace Left Behind	Drop Lab Experience/Physical and Chemical Change	Gumdrop Challenge
10:30: 10:40			Discussion	
10:40-10:45	BREAK	BREAK	BREAK	BREAK
10:45-11:00	Intro to DNA/Gummy ladders	The Case of the Broken Beaker	Bottle Rocket Truck	Biomimicry
11:00-12:00	DNA Extraction			

*Wednesday 9:00 – 10:40 there will be 3 different groups of 8/9 students rotating through Droplab experience, physical and chemical changes activity 1, and physical and chemical changes activity 2. Each activity will be approximately 20 minutes.

Activity Descriptions:

MONDAY

What is Science: Students will complete tasks designed to get them to think about the Nature of Science and their misconceptions about science and scientists. Students will perform simple experiments where they'll learn to make observations and record data.

Micropipette challenge: Campers will learn how to use a micropipette by racing to mix together colored samples.

DNA extraction: Campers will use the scientific method while extracting DNA from fruit.

TUESDAY

Forensics: Campers will solve a mystery using scientific evidence and forensics science. Students collect samples from a simulated crime scene and use the LMG test to test for the presence of blood and explore the connection between laboratory science and crime science investigation by creating DNA profiles using restriction enzymes and agarose gel electrophoresis.

WEDNESDAY

Chemical and Physical Changes: Campers will explore chemical and physical changes by creating and observing real-world examples of chemical reactions and playing an immersive game that allows them to visualize what's happening on a molecular level. Students will then use the skills learned and the engineering design process to design a truck powered by a chemical reaction.

THURSDAY

Engineering Design Challenges: Students will perform a series of engineering design challenges that use only the materials given as they perfect the engineering design process and build on prior knowledge on a variety of topics.

Grades 9-12

	Monday	Tuesday	Wednesday	Thursday
9:00-9:45	What is Science?	Droplab Experience	Space Capsule Drop	Circuits
9:55-10:55	Micropipette Challenge	The Case of the Broken Beaker	Biomimicry	Biodiesel
11:05-12:00	DNA Extraction	No Trace Left Behind	Bottle Rocket Truck	Looking into Lactase

Activity Descriptions:

MONDAY

What is Science: Students will complete tasks designed to get them to think about the Nature of Science and their misconceptions about science and scientists. Students will perform simple experiments where they'll learn to make observations and record data.

Micropipette challenge: Campers will learn how to use a micropipette by racing to mix together colored samples.

DNA extraction: Campers will use the scientific method while extracting DNA from fruit.

TUESDAY

Forensics: Campers will solve a mystery using scientific evidence and forensics science. Students collect samples from a simulated crime scene and use the LMG test to test for the presence of blood and explore the connection between laboratory science and crime science investigation by creating DNA profiles using restriction enzymes and agarose gel electrophoresis.

WEDNESDAY

Engineering Design Challenges: Students will perform two engineering design challenges that use only the materials given as they perfect the engineering design process and build on prior knowledge on a variety of topics.

THURSDAY

Engineering Design Challenge Continued/Acids & Bases