# WHO WANTS TO BE THE NEXT NEWTON/EINSTEIN OR ARCHIMEDES?

Newton, Einstein, and Archimedes are three renowned figures in the field of science, each leaving an indelible mark on our understanding of the physical world. These brilliant minds are linked by their groundbreaking contributions to the realm of physics and mathematics. Archimedes, with his principles of buoyancy and lever mechanics, laid the foundation for Newton's laws of motion, which transformed our understanding of how objects move and interact. Newton's theories, in turn, influenced Einstein's revolutionary theory of relativity, which revolutionized our understanding of space, time, and gravity. Together, these three geniuses form a powerful lineage of scientific thinkers who have shaped our understanding of the universe.

#### **ENGLISH STEAM DISCOVERY**



That's what Newton said...Forces and Motion!



The Mechanical World of Simple Machine and By using electricity to make your spark!

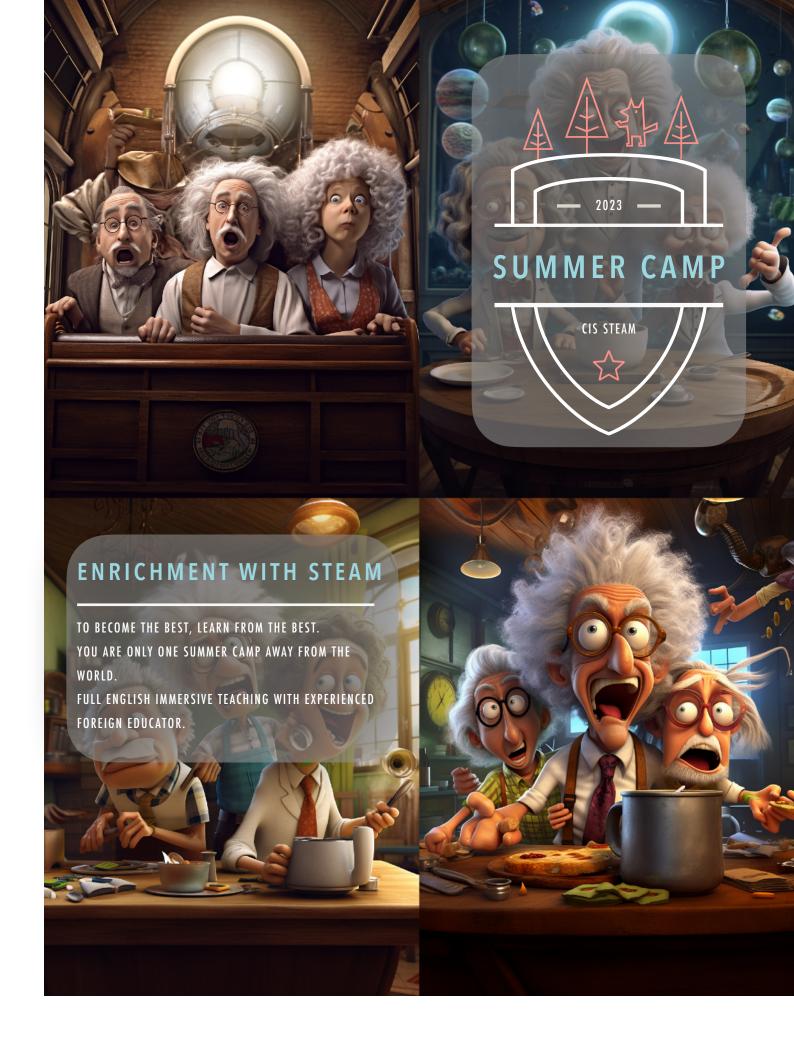


The form and function of structures. Give me a fulcrum, and I shall move the world!

## WHAT YOU WILL LEARN FROM ARCHIMEDES:

The Form and Function of Structures summer camp is a 5-day program designed to provide participants with a comprehensive understanding of structural engineering principles. Through interactive discussions, hands-on activities, and practical design challenges, participants will explore the relationship between form and function in structures, learn about different types of forces acting on structures, and develop the skills necessary to design and construct their own newspaper tower.

They will start by exploring the basic concepts of structures and their importance in everyday life. Then, they will delve into the world of forces, understanding how they impact structural integrity and equilibrium. The camp will also focus on the relationship between form and function in structures, emphasizing the impact of design choices and aesthetics. Participants will also gain insights into the unique challenges and considerations involved in bridge design, including materials and durability.



## WHAT YOU WILL LEARN FROM NEWTON:

Forces and Motion is an engaging and interactive 5-day summer camp designed to introduce participants to the fundamental principles of physics related to motion. Over the course of five days, participants delve into the world of forces, explore Newton's Laws of Motion, and apply their knowledge to the exciting task of designing and constructing a roller coaster. They brainstorm, design, and build their own roller coaster, optimizing its design for both thrill and safety. This project integrates physics principles, problem-solving skills, and teamwork, allowing participants to apply their learning in a practical and exciting way.

#### WHAT YOU WILL LEARN FROM EINSTEIN:

The Simple Machines Summer Camp is a 5-day program designed to introduce participants to the fascinating world of simple machines. The camp culminates in a final day where participants use their knowledge to design and create their own unique machines. They will combine different types of simple machines to construct functional and innovative creations. Along the way, participants will develop critical thinking, problem-solving, and teamwork skills while fostering their creativity and innovation.

The Electricity Summer Camp is an engaging 5-day program designed to provide participants with a comprehensive understanding of electricity and its practical applications. Including understanding the fundamental concepts of electricity, exploring static electricity and electromotors, gaining knowledge of electric circuits and current flow, and building circuits with resistors, capacitors, and inductors. The camp culminates with participants applying their knowledge to design and create a functional breadboard circuit, developing problem-solving and critical-thinking skills.