



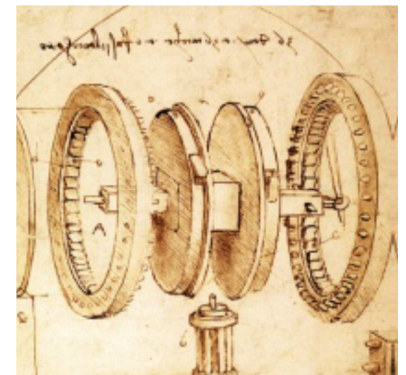
### **Class Topics:**

#### **Rock, Paper, Scissors**

Inventing means curiosity! Leonardo da Vinci started as an artist and developed many scientific observations that he recorded in his notebooks over the course of his lifetime. Children learn about his many discoveries and try their hand at his experiments, from writing notes backwards, measuring human proportions, building a self-supporting arch bridge to building catapults. The budding inventors bring home their da Vinci designs and devices at the end of the day.

#### **Whiz Kids**

Inventing means practicality! Inventions and patents to protect an invention were very popular in the late 1800s. Inventors Alexander Graham Bell, Thomas Edison and Nikola Tesla were locked in several battles over electrical inventions of their era. Children work together to form circuits and recreate Tesla's bright atmosphere for the 1893 World's Fair. They talk about sound and learn that anyone, a child, woman or man, can be an inventor. The class moves from simple devices to Rube Goldberg devices and the children perform as parts of a complex human-machine. The children prepare a patent proposal and receive a patent certificate at the end of the camp day.



#### **Shipwrecked**

Inventing means necessity! Archimedes and Benjamin Franklin both created devices to make their society function smoother. This day puts children on a deserted island in which they must work together to invent a means for collecting food and water, build shelters, bridges, and learn about density. They use the tools at hand to write messages to send in a bottle and witness a volcanic eruption. The children eventually design a boat to escape the island and bring it home.

#### **Think Fast**

Inventing means cooperation! Orville and Wilbur Wright worked together to develop the first self-controlled motorized flying machine. Their team efforts also lead to improved bicycle pedals and faster sleds. Children review technological advances in flight and work together to produce improved paper plane designs. They will work as a group to put historical flight events in chronological order. The children then step into space by launching self-built rockets and loading a payload capsule puzzle. These flight fanatics go home with a squadron of paper airplanes for further test flights.

#### **Science Fiction**

Inventing means dreaming! Jules Verne and Isaac Asimov wrote about things that would be available in the future. These science fiction writers developed the reality of their current technology into future possibilities. The children develop submarines that rise or sink, wind-up space stations, and design safety capsules for payloads returning from space. They follow a telecommunications timeline and develop one for transportation. The children decipher fact from fiction and play a future-based bingo game. These future inventors get a lesson on lasers, build a light stick and work on protecting a space ship from damaging space rays. The camp wraps up with a robotic relay and the children take home dreams of the future and new planets to explore.

**For more information about this camp contact us at 801-292-8646.**