

# The 2022 Summer Wildcard



*Inspiring and Empowering Every Charger, Every Day!*

# Club Invention - What is it?

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- For: Curious kids K-6
- What: A confidence-boosting STEM summer camp to keep students engaged. Led by certified local educators, the camps offer new and exciting hands-on activities every year. [Club Invention In Action](#)





# Flight Sight

## SUBJECTS

 Physical Science

 Engineering

 Biomimicry

 History

 Algebraic Thinking

 Speaking and Listening

## UNIT OVERVIEW

Flight Sight offers children insight and inspiration from inventors who have made human flight possible, from the first attempts at manned flight through space exploration. Just as people have gained new perspectives by flying farther and soaring higher, children also discover new ways to see the world in this unit. Both collaboratively and independently, they engage in kinesthetic activities, explore art concepts and practice real-world problem solving to defy gravity, create topographical maps and travel beyond Earth's atmosphere.

## CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:



Demonstrating persistence while investigating aspects of flight from the ground up.



Building an appreciation for intellectual property by getting to know National Inventors Hall of Fame Inductees and their innovations.



Applying creative problem solving and exploring biomimicry to simulate space travel.

## TAKEAWAYS

IN THIS UNIT, CHILDREN CREATE:

- A Gravity-Defying Device
- A Jet Pilot Flight Simulator
- Topographical Maps
- Astronaut Suits
- Model Airplanes
- A Flight Craft of the Future

# Castles, Catapults, and Coats of Arms

## SUBJECTS

English Language Arts

Social Studies

Mathematics

Measurement and Data

Engineering

Visual Arts

## UNIT OVERVIEW

Children build skills for the future as they explore the past in Castles, Catapults and Coats of Arms. Investigating basic scientific principles through the lens of medieval history, children use their imaginations to take on the roles of lords, ladies, knights, craftspeople and serfs. They work together to complete hands-on challenges and discover that inventiveness has existed even in times of suppressed learning, helping them to build empathy and social awareness, along with responsible decision making.

## CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:



Exercising design thinking and creative problem solving to construct a castle wall and sculpt boats to transport cargo.



Applying fundamental knowledge of STEM concepts while exploring history.



Creating, testing and recreating a catapult and drawbridge using simple machines.

## TAKEAWAYS

IN THIS UNIT, CHILDREN CREATE:

- Cup Towers
- Boats
- Drawbridges
- A Catapult

# Bolder Builders

## SUBJECTS



Architecture



Biomimicry



Design Thinking



Ecology



Engineering



Physics



Oral Language

## UNIT OVERVIEW

In Bolder Builders, children join engineer, architect and builder Archie Tek to restore a town called Unlucky. They apply building principles that have been used for centuries, learning that even through natural disasters, people can be resilient and rebuild their communities. Considering both function and aesthetics, children design the town layout and construct buildings and bridges. They collaborate, brainstorm and plan their design, and then create, test and recreate to discover that they can make an impact on the world.

## CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:



Applying empathy and creative problem solving to design shelters for different weather conditions.



Exploring biomimicry and innovation, using inspiration from nature to create strong structures.



Using STEM principles to replicate bridge construction and learn how earthquakes impact buildings.

## TAKEAWAYS

IN THIS UNIT, CHILDREN CREATE:

- Tent Blueprints and Prototypes
- Suspension Bridges
- New Town Buildings
- Model Implosions
- Giant Spiderwebs
- Marble Runs

# Trash Island:

## A Garbage Patch Journey

### SUBJECTS

 Oceanography

 Animal Science

 Mathematics

 Environmental Science

 Geography

 Engineering Design

 Speaking and Listening

### UNIT OVERVIEW

In *Trash Island: A Garbage Patch Journey*, children investigate the extreme buildup of trash in the North Pacific Ocean Gyre between California and Hawaii. They must determine what has contributed to this area, known as Trash Island, and develop solutions to keep it from growing. Children are immersed in ecological topics including ocean conservation and pollution control as they collaborate, conduct research and tap into their creativity to clean up the ocean and secure a brighter, healthier future.

### CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:



Practicing innovation to develop ideas that promote sustainable living and environmental conservation.



Applying design thinking to build devices that collect trash and remove contaminants through water filtration.



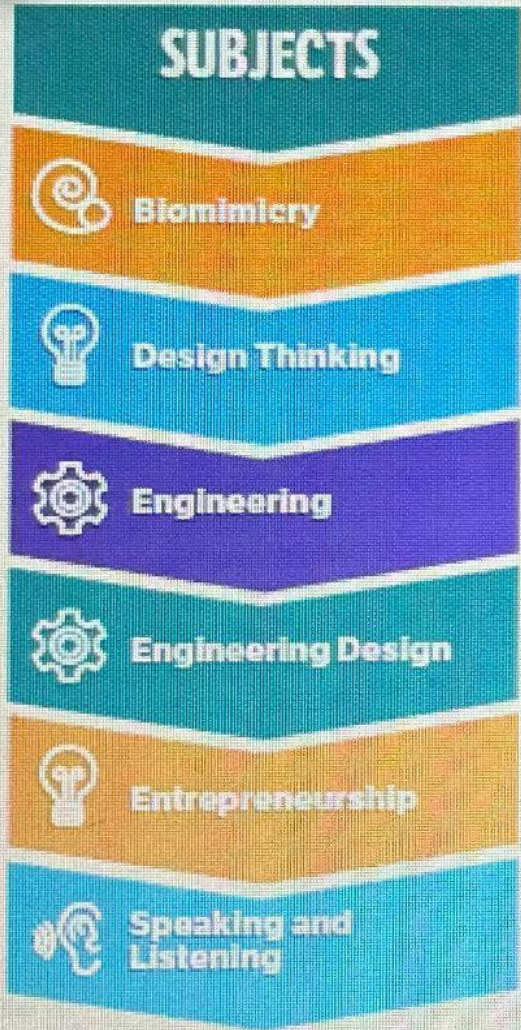
Building confidence while taking on ocean research challenges that connect to real-world issues.

### TAKEAWAYS

IN THIS UNIT, CHILDREN CREATE:

- Boat Logs
- Waterproof Cases
- Trash-Collecting Trawls
- Fishing Poles
- Egg-Marines
- A Robotic Arm for a Remotely Operated Vehicle (ROV)
- A Fantasy Cleanup Machine

# Wheel of Invention



## UNIT OVERVIEW

In Wheel of Invention, children team up to take on exciting invention challenges. Throughout the unit, they have the chance to be inspired by the unique features of animals and plants from around the world as they build prototypes to provide real-world solutions. Along the way, students play games that will test their aim to win bonus materials. To score even more prizes, contestants race to buzz in and correctly answer questions that mention invention. Get ready to spin and win!

## CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:



Pitching different invention designs that solve real-world problems.



Using the unique features of plants and animals from around the world to inspire the prototyping process.



Working in teams to develop inventions that are presented to others.

## TAKEAWAYS

IN THIS UNIT, CHILDREN CREATE/PRACTICE:

- Valuable Social-Emotional Learning Skills
- Innovative Invention Prototypes
- Deeper Connections to Plants and Wildlife
- Solutions to Real-World Problems





# **Club Invention Cost Analysis**

**Curriculum**

**Materials**

**\$2,500**

**“Inspiring and Empowering every  
Charger every Day”**

**PRICELE\$\$**

# ESSER Funds

This program qualifies for the ESSER funds intended for supplemental learning, the company makes it easy to customize and implement STEM education programs that will fulfill funding requirements while meeting our district's needs.



**Qualifies for  
ESSER funds**



**Aligns to national  
& state standards**



**Customized  
district solutions**





# Here is Our Plan



# Timeframe

4 Total Weeks 8:00-3:00

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July 5-8 (while this camp is 4 days the cost is the same as the materials were more expensive)

July 11-15

July 18-22

July 25-29

\$125 per camp \$25 discount when you sign up for multiple camps or siblings

Students must be dropped off and picked up



# Schedule

8:00-9:00 Morning Meeting SEL, Team building, Creativity Challenges

9:00-11:00 Reading/Research/Finding information/Planning/Creating/Rough Draft/Collaborating/Modify

11:00-11:25 PLAY

11:25-12:15 Wash hands for Lunch and Brain break (outdoors on the playground or playing a game in the gym that ties into the theme of the week)

12:15-1:45 Test/Modify/Research/Collaborate

1:45-2:00 Brain break, Creativity Challenge

2:00-2:45 Play based, creating, making and preparing for final product

2:45-3:00 Pick up and Pack up

# Cost Analysis + Plan hours

Staff x 2 for the 4 weeks of summer (24 days x 7 hours x \$30 hourly per negotiated agreement)	\$10,080		\$125 a week x 24 students	*\$3,000
Staff x 2 Plan 30 min daily x 24 days x 30 hourly)	\$720			
			\$3,000 x 4 weeks	*\$12,000
Total Expenses	\$10,800			

\*estimated cost analysis above may differ as students are offered a sibling discount

A full camp of 24 students each week will pay for two staff members providing a 12:1 student ratio. The district will **incur no financial loss** for employment of personnel to inspire and empower chargers with engaging curriculum!