

UR 5TH-6TH SUMMER CAMP 2023 SUMMARIES

WEEK ONE SCIENCE SCHOLARS

Take a dash of engineering, a sprinkle of chemistry, and a pinch of biology, toss them together with some fun and games, and you have an enriching STEM-based experience. Our Science Scholars will explore the different worlds of science through exciting experiments and problem-solving scenarios

ROBOTS AND MAZES

Discuss robots.
Build a Bristlebot robot.
Discuss mazes.
Make a maze for your Bristlebot.

THE BRAIN

Discuss the Brain.
Make a brain hat.
Make and dissect a brain.
Discuss left-brained or right-brained.
Test Your Dominant Side.

WHAT IS AN ENGINEER?

Discuss engineers.
Do Engineering Challenges.
Create a Minute to Win It Engineering Challenge.

DNA

Discuss DNA. Build DNA.

ANIMAL ENGINEERING

Discuss biomimicry.
Discuss lily pads.
Design a floating lily pad.

THE SCIENCE OF BLOOD

Discuss Blood.

Make fake blood.

Do blood splatter experiments.

Solve The Case of the Missing Diamond.

HENRIETTA LEAVITT AND CONSTELLATIONS

Discuss Henrietta Leavitt and constellations. Design a constellation.

FINGERPRINT AND FOOTPRINT SCIENCE

LESSONS ARE SUBJECT TO CHANGE.



 $\label{lem:decomposition} Discuss for ensics, fingerprints, and footprints.$

Investigate your fingerprints and footprints.

Discuss what feet and foot bones can tell about a person and how detectives could use this information to solve a crime.

IN A GALAXY FAR, FAR AWAY

Discuss the X-59.

Make an X-59.

Discuss sound cones.

Make a sound cone.

ANIMAL ADAPTATIONS

Discuss animal adaptations.

Design an adaptation for an animal.

HANDWRITING SCIENCE

Discuss handwriting.

Do handwriting analysis.

Discuss codes and ciphers.

Make a Slider Cipher.

USE YOUR SENSES SCIENCE

Discuss how Forensic Scientists.

Do Forensic Science experiments.

Discuss forgery and counterfeit money.

Identify the counterfeit bills and art.

WEEK TWO ULTIMATE SPORTS SUMMARY

This is not your typical sports program...this is ULTIMATE SPORTS. We will dive into games such as Ultimate Frisbee, Land Polo, and Spike Ball. Experience new sports, teach your friends a cool new game, learn a few new tricks, and have fun!

ULTIMATE FRISBEE

Introduce Ultimate Frisbee

Introduce and demonstrate throwing and catching a frisbee.

Play a scrimmage.

Play Mini Disc Golf with partners.

SPIKE BALL

Discuss Spikeball.

Play Spikeball.

Do a Spikeball Round Robin Tournament.

BOOMERANGS

Discuss Boomerangs.

LESSONS ARE SUBJECT TO CHANGE.



Design a boomerang. Play Boomerang golf.

LAND POLO

Discuss hockey. Play Noodle Hockey. Play Cone Croquet.

FIELD GAMES

Discuss Track and Field. Play Track and Field games.

THINK OUTSIDE THE BALL

Do the Water Bottle Flip Challenge. Play Flip It and Frisbee Flip.

HACKY SACKS

Discuss hacky sacks. Hacky sack juggling. Play hacky sack games.

WEEK THREE ART-CHITECTS: ENGINEERING AND ART

In this program, kids will learn the basics of architecture including drawing, designing, and creating structures and buildings. Design the home of your dreams, discover the inspiration for famous buildings and bridges, or plan a new roller coaster for your favorite theme park. Unleash your inner art-chitect with us.

HOW TO MAKE A BLUEPRINT

Discuss blueprints.

Design a building, house, store, museum, etc., using a blueprint.

MAKE A GREEK COLUMN

Review the Illustrated Building Parts glossary. Make a blueprint for a column. Build a 3D replica of the column.

BUILDING ORNAMENTS

Discuss the relevance of building ornaments. Design a building ornament.

DESIGN THE HOME OF YOUR DREAMS

Discuss Architects.
Discuss homes and forts.
Discuss how architects use drafting paper.
Design your dream house.

LESSONS ARE SUBJECT TO CHANGE.



Discuss 3D design.

Build your 3D house based on your draft.

DESIGN AN AMUSEMENT PARK

Discuss a theme park designer. Design an amusement park.

BUILD A 3D ROLLER COASTER

Discuss roller coasters. Build a 3D roller coaster.

BRIDGE INSPIRATION

Discuss bridges. Build a 3D bridge. Draw a bridge of the future.

BUILDINGS OF THE FUTURE

Discuss civil engineers. Sketch a unique building or skyscraper. Build a 3D replica of your unique building using your sketch as a guide.

IGLOOS

Discuss Igloos.
Discuss the parts of an igloo.
Make igloos.
Do Engineering Minute to Win It Games.

CREATE A BEDROOM

Discuss 3D room design.

Make a 3D example of your bedroom.

TOTEM POLES

Discuss Totem Poles. Design a totem pole.

BUILD A COMMON PIECE OF FURNITURE

Discuss Frank Gehry.
Discuss cardboard furniture.
Sketch the design for a piece of cardboard furniture.
Design a piece of cardboard furniture based on your design.

WEEK FOUR WOW LAB

Hypothesize, observe, and watch in wonder over the crazy science reactions in our WOW Lab. Each lesson will focus on a scientific experiment and the science behind the experiment. Grow your



science knowledge and have a few wow moments along the way. Come join us for this exciting journey into the world of science experiments!

WHAT IS CHEMISTRY?

Discuss Science and hypothesizing. Discuss chemistry and chemical reactions. Make Fireworks in a Jar and lava lamps.

BOUNCY BALLS

Discuss chemical engineers. Make a bouncy ball.

CHEMISTRY IN NATURE

Discuss greenhouses.

Make a mini greenhouse.

Discuss colors in nature/plant dyes.

Experiment with plant dyes.

FOOD EXPERIMENTS

Discuss egg yolk and white. Make egg slime. Discuss marshmallows. Make marshmallow structures.

MYSTERY DIRT, DUST, AND POWDER EXPERIMENTS

Discuss how detectives could use dirt and dust to solve crimes. Do a dirt analysis.

Discuss the mystery substances.

Do an analysis to determine the substances.

SALT CHEMISTRY

Discuss salt and ocean water. Demonstrate the density of saltwater. Make salt art.

SLIME SCIENCE

Discuss slime.

Make slime.

Make Oobleck.

Discuss the differences between slime and the Oobleck.

HUMAN BODY SCIENCE

Discuss the chemistry of burping. Conduct a burping experiment. Make a burp bag.

LESSONS ARE SUBJECT TO CHANGE.



Discuss farts (flatulence). Make fart putty.

WEEK FIVE GLOBETROTTERS

Let's trot the globe to explore different countries and learn about the traditions and celebrations that are unique to their region. Our special journey will touch on art, music, and games native to each country. Globetrotters, pack your bags because this is a celebration that you do not want to miss!

JAPAN

Discuss Japan. Make a koinobori. Discuss sushi. Make paper sushi rolls.

GHANA

Discuss Ghana.

Make a Ghanaian mask.

Discuss African trade beads.

Make an African trade bead necklace.

SWITZERLAND

Discuss Switzerland. Make Räbeliechtli and a Swiss flag puzzle.

AUSTRALIA

Discuss Australia. Make an Aboriginal bark painting. Discuss Boomerangs. Make boomerangs.

GREECE

Discuss Greece and the history of labyrinths. Make a labyrinth.

SOUTH AFRICA

Discuss South Africa and Ndebele house paintings.

Make a Ndebele house painting.

Discuss the meanings of the colors in the African bead bracelet.

Make an African color bracelet.

CHINA

Discuss China and bamboo books. Make a bamboo book. Discuss dragons.

LESSONS ARE SUBJECT TO CHANGE.



Make a Chinese Dragon fire shooter.

NEW ORLEANS

Discuss New Orleans and Mardi Gras. Make Mardi Gras masks.

MEXICO

Discuss Mexico. Make sugar skulls. Discuss papel picado. Make papel picado.

THAILAND

Discuss Thailand.
Design a floating lantern.
Make a Thailand Animals Flextangle.

GREECE

Discuss Greece and the Olympics. Make an Olympic Torch. Discuss the meaning of the Olympic ring colors. Make Olympic bracelets.

INDIA

Discuss India and Diyas. Make a Diya and Rangoli.

WEEK SIX AMAZING ADVENTURES

Attention, All Amazing Kids! We will take you on adventures where we will get your creative juices flowing and fill your days with lots of amazing activities and daily challenges!

SECRET CODES

Discuss codes and ciphers. Make a Slider Cipher.

OH DOMINOS!

Discuss Dominos. Do Dominos challenges. Create UR's longest domino line.

FARKLE!

Discuss Farkle. Play Farkle. Create your own Farkle game.



DENTAL IMPRINTS

Discuss how investigators use teeth and dental imprints to solve crimes. Examine dental imprints.

Play Help Me!

THE WRITING ON THE WALL

Discuss handwriting.
Do handwriting analysis.
Write in invisible ink.

THE ART OF FORGERY

Discuss forgery and counterfeit money. Identify the counterfeit bill. Create a dollar bill.

BRAIN GAMES

Play a variety of brain-buster games. Make a scavenger hunt.

SPORTS STATS

Discuss sports statistics.

Do a bracketology challenge.

Do a baseball batting average project or test your speed.

MAKE A YAHTZEE GAME

Discuss Yahtzee.

Make a take home Yahtzee game.

MINUTE TO WIN IT GAMES

Discuss Minute to Win It games. Play a variety of Minute to Win It games. Create your own Minute to Win It game.

GAME SHOW CENTRAL

Discuss game shows.

Play Family Feud, Pyramid, and Password.

WEEK SEVEN MCA "Mystical Creature Adventures"

Loch Ness Monster, Big Foot, Greek Gods, and mystical creatures...did we get your attention? We are going to fill your days with discoveries about these legendary creatures. Not only will you have fun, but you will broaden your creative mind and gain critical reasoning skills. This is one adventure you will not want to miss!

LOCH NESS MONSTER

Discuss the Loch Ness Monster or Nessie.



Make Nessie. Play MCA Memory.

BIGFOOT OR SASQUATCH

Discuss Big Foot. Create Bigfoot Footprints. Make a BigFoot Wanted Poster.

GREEK GODS

Discuss Greek Gods. Create a Greek Gods Mad Lib.

DRAGONS

Draw a dragon.
Discuss dragons.
Make a 3D dragon.
Play Egg, Chicken, Dragon, and Elvis.

TROLLS AND ELVES

Discuss trolls and elves. What are the differences between a troll and an elf? Make a mystical creature crossword puzzle. Play Capture the Troll Flag.

CYCLOPS

Discuss Cyclops. Make an origami cyclops.

THUNDERBIRD

Discuss Thunderbird. Make Thunderbird Medallion Necklaces. Design a totem pole.

SPHINX

Discuss the Sphinx. Draw a modern-day Sphinx. Make a Sphinx pop-up card. Solve the Sphinx Maze.

PIXIES AND FAIRIES

What are the differences between pixies and fairies? Make fairies. Play Capture the Pixies Tag.

WEREWOLVES



Discuss werewolves.

Make a full moon with a werewolf shadow.

MAKE YOUR OWN CREATURE

Discuss Mythical Creatures. Create your own Mythical Creature. Play, I Have, Who Has Mythical Creatures.