

## **UWC Thailand Holiday Camp: Sports and Technology**

**Monday 24th June - Friday 12th July 2024**

### **SIGN IN ACTIVITY:**

Each day when students arrive they will be greeted with an exciting and inclusive range of activities. It is important for the day to start on a positive note as this will set the tone for the following activities.

### **TEAM BUILDING GAMES:**

A fun way for students to work together to achieve their desired outcome. Team building games range from sporting games to simple games where there is plenty of fun and understanding of the positive impacts in working with others to reach a goal.

### **SPORTS ACTIVITY CIRCUIT:**

Within the space of 60 minutes, students progressed around 3-4 different sporting activities. These will range from motor skill development, speed and agility, developing body strength and team building activities.

### **SWIMMING PROGRAM:**

Water safety is a major factor for all students at school and this class refreshes and develops these skills. Students are taught some fundamental swimming techniques and then games are added in to learn these skills in a fun and inclusive environment.

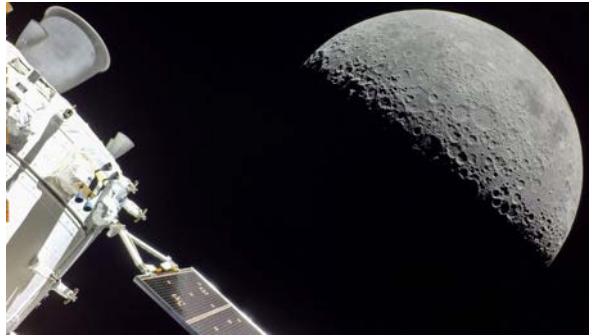
### **TEEMS Olympics:**

TEEMS Olympics is always a highlight for students at each camp. Students are given a wide variety of activities to complete and these will range from actual Olympic events such as racing, long jumps and shot put through to fun games that have elements of the sports programs completed during that week of camp.

### **WET and WILD FUN:**

Friday's are all about fun and Wet and Wild Fun is no different. Students will either be in the pool for some fun water games or at an activity station which may include water hoses, water balloons and a variety of games and events aimed to maximise fun and maximise splash.

## STEM Technology



### STEAM Mission to the Moon

Embark on a thrilling journey of scientific exploration and innovation as we delve into the ambitious STEAM mission to the Moon. This interdisciplinary endeavour combines the realms of Science, Technology, Engineering, Arts, and Mathematics (STEAM) to unlock the mysteries of Earth's celestial companion. Follow along as experts from diverse fields collaborate to push the boundaries of human knowledge, utilising cutting-edge technologies, artistic inspiration, and mathematical precision to navigate the challenges of lunar exploration. Join us as we witness the convergence of creativity and scientific rigour in this monumental quest to expand humanity's footprint beyond Earth's borders.



### STEAM Happy Salmon

Dive into a lively fusion of Science, Technology, Engineering, Arts, and Mathematics (STEAM) with Happy Salmon, a dynamic and exhilarating card game experience. Discover how this game seamlessly blends elements of teamwork, communication, and strategic thinking with a splash of fun and excitement. Engage in fast-paced rounds of frenzied action as players race to perform hilarious gestures and complete energetic challenges. Explore the synergies between creative expression and logical reasoning while fostering collaboration and camaraderie among participants. Join the celebration as Happy Salmon ignites laughter and sparks creativity in an unforgettable STEAM adventure for all ages.



### **STEAM Racing Car**

Buckle up for an electrifying journey into the world of STEAM with the Racing Car project, where Science, Technology, Engineering, Arts, and Mathematics converge in a high-octane symphony of innovation. Delve into the intricacies of automotive engineering as teams harness the power of cutting-edge technologies to design, build, and fine-tune their racing machines. Explore the intersection of artistry and aerodynamics, where sleek designs meet mathematical precision to optimise performance on the track. Witness the fusion of creativity and computational thinking as drivers navigate complex circuits with speed and agility. Join the race and experience the thrill of STEAM in motion as the Racing Car project accelerates towards victory.



### **STEAM Planting A**

Embark on an enriching journey of exploration and growth with STEAM Planting Adventure, where Science, Technology, Engineering, Arts, and Mathematics converge to cultivate a greener tomorrow. Delve into the intricate ecosystem of plant life as participants engage in hands-on activities that integrate innovative technologies, scientific inquiry, and artistic expression. Discover the artistry in botany as you design sustainable gardens, leveraging engineering principles to optimize growth and efficiency. Explore the mathematical patterns inherent in nature's beauty while employing cutting-edge techniques to monitor and nurture plant health. Join us in sowing the seeds of curiosity and creativity, as STEAM Planting Adventure blossoms into a vibrant celebration of sustainable living and environmental stewardship.



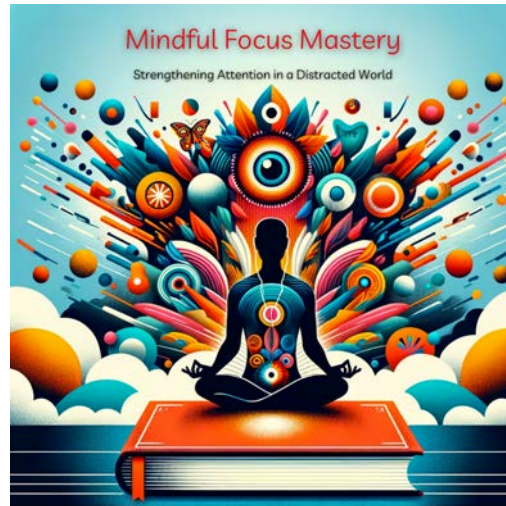
### **STEAM Robotic Mission 1**

Embark on an intergalactic odyssey of discovery with STEAM Robotic Mission 1, where Science, Technology, Engineering, Arts, and Mathematics converge to propel humanity into the cosmos. Journey alongside a team of intrepid explorers as they deploy cutting-edge robotics to unravel the mysteries of distant worlds. Witness the fusion of creativity and scientific ingenuity as engineers design and program autonomous rovers to navigate treacherous terrain and collect vital data. Marvel at the intricate choreography of precision engineering and mathematical algorithms as these robotic pioneers embark on their quest for knowledge. Join us in this thrilling expedition as STEAM Robotic Mission 1 charts a course towards the frontiers of space exploration, inspiring future generations to reach for the stars.



### **STEAM Robotic Mission 2**

Embark on an exhilarating voyage of discovery with STEAM Robotic Mission 2, where Science, Technology, Engineering, Arts, and Mathematics converge to push the limits of exploration. Join a team of visionary pioneers as they unleash the power of robotics to navigate uncharted territories and unlock the secrets of the unknown. Immerse yourself in the seamless integration of creativity and scientific innovation as engineers design and deploy state-of-the-art robots equipped with advanced sensors and AI algorithms. Experience the thrill of discovery as these robotic explorers traverse rugged landscapes and traverse hostile environments, gathering invaluable data and expanding our understanding of the cosmos. Join us on this daring adventure as STEAM Robotic Mission 2 pioneers the frontiers of discovery, inspiring future generations to dream big and reach for the stars.



### **STEAM Brainpower Attention**

Embark on a transformative journey into the realm of cognitive excellence with STEAM Brainpower Attention, where Science, Technology, Engineering, Arts, and Mathematics converge to unlock the full potential of the human mind. Explore the intricate interplay between attention, creativity, and problem-solving as participants engage in immersive activities designed to enhance focus, mindfulness, and cognitive agility. Delve into the neuroscience of attentional processes, leveraging cutting-edge technologies and innovative approaches to optimize mental performance and foster a culture of lifelong learning. Join us in harnessing the power of STEAM to cultivate a generation of mindful innovators, equipped with the skills and mindset to thrive in an ever-evolving world.



### **STEAM Candle Making**

Illuminate your imagination with STEAM Candle Making, where Science, Technology, Engineering, Arts, and Mathematics merge to craft captivating luminaries. Dive into the fascinating chemistry behind candle creation, exploring the properties of wax, wicks, and fragrances through a scientific lens. Engage in hands-on experimentation, leveraging engineering principles to design unique candle moulds and containers. Infuse your creations with artistic flair, experimenting with colors, textures, and decorative elements to express your individuality. Delve into mathematical precision as you calculate burn times and ratios for optimal candle performance. Join us in this sensory journey as STEAM Candle Making blends creativity and scientific inquiry, lighting the way to endless possibilities.





### **STEAM Creative Art**

Step into a realm where imagination knows no bounds with STEAM Creative Art, where Science, Technology, Engineering, Arts, and Mathematics converge to redefine the boundaries of artistic expression. Dive into a world where creativity and innovation intertwine, exploring the intersection of traditional artistry with cutting-edge technologies. Experiment with digital tools and software, leveraging technology to breathe new life into traditional mediums. Engage in hands-on exploration, blending engineering principles with artistic vision to sculpt, paint, and design immersive creations. Delve into the mathematical beauty of patterns and proportions, unlocking new dimensions of aesthetic exploration. Join us in celebrating the fusion of creativity and analytical thinking as STEAM Creative Art inspires a new era of artistic ingenuity and expression.



### **STEAM My First Sand Pendulum**

Embark on a mesmerising journey of scientific wonder and artistic exploration with My First STEAM Sand Pendulum, where Science, Technology, Engineering, Arts, and Mathematics converge to create captivating patterns in the sand. Delve into the principles of physics as you observe the intricate dance of pendulum motion, exploring concepts of momentum, gravity, and harmonic oscillation. Engage in hands-on experimentation, designing and constructing your own pendulum apparatus with engineering precision. Immerse yourself in the artistry of pattern formation, experimenting with different variables to create stunning geometric designs. Experience the mathematical beauty of chaos theory as you observe the emergence of complex patterns from simple movements. Join us in this sensory adventure as My First STEAM Sand Pendulum sparks curiosity and ignites a passion for discovery in learners of all ages.



### **STEAM Aerospace Engineering**

Embark on a thrilling odyssey into the boundless realms of flight and exploration with STEAM Aerospace Engineering, where Science, Technology, Engineering, Arts, and Mathematics converge to propel humanity to new heights. Dive into the fundamental principles of aerodynamics and propulsion as you unravel the mysteries of flight through scientific inquiry and experimentation. Engage in hands-on engineering challenges, designing and constructing model aircraft with precision and ingenuity. Explore the intersection of creativity and innovation as you integrate artistic design elements into aerodynamic structures, inspiring awe-inspiring feats of engineering. Delve into the mathematical complexities of orbital mechanics and navigation, unlocking the secrets of space travel and celestial exploration. Join us in this exhilarating adventure as STEAM Aerospace Engineering ignites a passion for discovery and innovation, paving the way for the next generation of aerospace pioneers.



### **STEAM Earthquake Challenge**

Embark on an adrenaline-fueled expedition into seismic exploration with the STEAM Earthquake Challenge, where Science, Technology, Engineering, Arts, and Mathematics converge to tackle one of nature's most formidable forces. Dive into the scientific intricacies of earthquake phenomena, exploring the geophysical principles that underpin seismic activity. Engage in hands-on engineering tasks, designing and constructing resilient structures capable of withstanding simulated tremors with precision and ingenuity. Harness the power of creativity as you integrate artistic elements into your designs, balancing aesthetics with structural integrity. Delve into the mathematical complexities of structural analysis, optimizing your creations to minimize damage and ensure survival in the face of seismic events. Join us in this high-stakes adventure as the STEAM Earthquake Challenge inspires teamwork, innovation, and resilience in the face of adversity.



### **STEAM ESports Challenge**

Prepare to enter the electrifying arena of competitive gaming with the STEAM eSports Challenge, where Science, Technology, Engineering, Arts, and Mathematics converge to fuel the ultimate test of skill and strategy. Immerse yourself in the dynamic world of eSports, where players harness cutting-edge technology, strategic thinking, and lightning-fast reflexes to outmaneuver opponents in virtual battlegrounds. Explore the intricate balance between creativity and analytical prowess as participants engage in intense matches across a variety of gaming platforms and genres. From MOBAs to FPSs, participants will showcase their gaming prowess while leveraging mathematical algorithms, engineering principles, and artistic flair to secure victory. Join us in the STEAM eSports Challenge as we celebrate the fusion of digital innovation and competitive spirit in an exhilarating showcase of skill and strategy.



### **STEAM Solar Oven Challenge**

Embark on a journey of sustainable innovation with the Sunbeam Savvy STEAM Solar Oven Challenge, where Science, Technology, Engineering, Arts, and Mathematics converge to harness the power of the sun for culinary creativity. Participants will delve into the principles of solar energy, designing and constructing their own solar ovens using engineering ingenuity and creative flair. Explore the intersection of artistry and efficiency as you incorporate artistic elements into your oven designs while optimising their functionality. Engage in hands-on experimentation as you fine-tune your ovens to maximise heat retention and cooking performance, all while minimizing environmental impact. Join us in this eco-friendly culinary adventure as the Sunbeam Savvy challenge inspires ingenuity, teamwork, and a passion for sustainable living.





### **STEAM Water Rocket Challenge**

Prepare for a thrilling blast-off into the world of STEAM with the Hydro Thrust Water Rocket Challenge, where Science, Technology, Engineering, Arts, and Mathematics merge to propel innovation to new heights. Participants will embark on an exhilarating journey of hands-on exploration as they design, build, and launch their own water-powered rockets. Dive into the principles of physics and engineering as you optimise your rocket's aerodynamic design and propulsion system. Infuse your creations with artistic flair, decorating your rockets with eye-catching designs that showcase your creative ingenuity. Engage in mathematical calculations to determine optimal launch angles and trajectories, aiming for maximum altitude and flight duration. Join us in this high-flying adventure as the Hydro Thrust Water Rocket Challenge inspires collaboration, experimentation, and a passion for scientific exploration.



### **STEAM Animation Lab**

Enter a realm of boundless imagination and technical innovation with the STEAM Animation Lab, where Science, Technology, Engineering, Arts, and Mathematics converge to bring characters and stories to life in mesmerizing motion. Participants will embark on an immersive journey into the art and science of animation, exploring the principles of visual storytelling, character design, and movement dynamics. Dive into the technological toolkit of animation software and digital tools, leveraging cutting-edge technology to unleash your creativity. Engage in hands-on experimentation, blending artistic expression with computational thinking to craft captivating animations. Delve into the mathematical intricacies of timing and motion, mastering the principles of physics to create convincing and compelling animations. Join us in the STEAM Animation Lab as we ignite a passion for storytelling, creativity, and digital innovation in a dynamic and collaborative environment.



### STEAM Computer Programming

Embark on a transformative journey into the heart of digital innovation with CodeCraft: Navigating the World of Computer Programming. Dive into the fundamentals of coding, where logic, creativity, and problem-solving converge to shape the digital landscape.

Participants will explore the building blocks of computer programming, mastering languages such as Python, Java, or JavaScript to unlock endless possibilities in software development. Engage in hands-on projects that challenge your skills and expand your coding prowess, from building interactive websites to designing sophisticated algorithms. Delve into the dynamic realm of software engineering, where collaboration, innovation, and adaptability are the keys to success. Join us in the CodeCraft adventure and unlock the power to shape the future through the art and science of computer programming.



### STEAM Future Software Skills

Embark on a journey towards technological mastery with Tech Horizons: Nurturing STEAM Future Software Skills. In this immersive program, participants will delve into the cutting-edge intersection of Science, Technology, Engineering, Arts, and Mathematics (STEAM), honing their abilities in software development for tomorrow's digital landscape.

From coding languages like Python and JavaScript to innovative software engineering techniques, learners will cultivate the skills needed to thrive in the fast-paced world of technology. Through hands-on projects and collaborative challenges, participants will not only expand their technical expertise but also develop critical thinking, problem-solving, and teamwork skills essential for success in the digital era. Join us in exploring the frontiers of software innovation and preparing for the limitless possibilities of tomorrow's tech-driven world.



### **STEAM Green Screen Teaching**

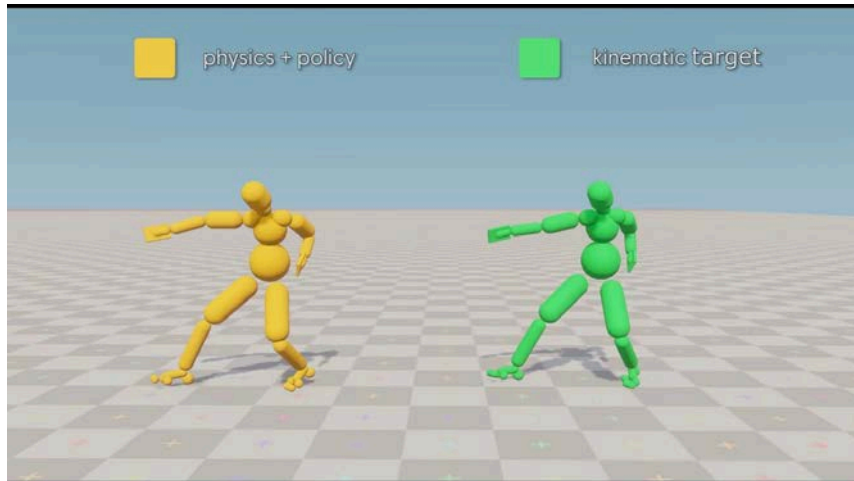
Discover the transformative power of ChromaCraft: Unleashing Creative Teaching with STEAM Green Screen. In this innovative program, educators will explore the dynamic intersection of Science, Technology, Engineering, Arts, and Mathematics (STEAM) through the captivating medium of green screen technology. Dive into the world of digital storytelling and visual communication as you learn to integrate green screen techniques into your teaching toolkit. From virtual field trips to interactive presentations, educators will unlock new dimensions of engagement and immersion, fostering active learning and creativity among students. Through hands-on workshops and collaborative projects, participants will gain practical skills in green screen setup, filming, and editing, empowering them to unleash their creativity and inspire lifelong learning in the classroom. Join us in embracing the possibilities of ChromaCraft and revolutionize your teaching with STEAM Green Screen.



### **STEAM IQ Board Game**

Discover the transformative power of ChromaCraft: Unleashing Creative Teaching with STEAM Green Screen. In this innovative program, educators will explore the dynamic intersection of Science, Technology, Engineering, Arts, and Mathematics (STEAM) through the captivating medium of green screen technology. Dive into the world of digital storytelling and visual communication as you learn to integrate green screen techniques into your teaching toolkit. From virtual field trips to interactive presentations, educators will unlock new dimensions of engagement and immersion, fostering active

learning and creativity among students. Through hands-on workshops and collaborative projects, participants will gain practical skills in green screen setup, filming, and editing, empowering them to unleash their creativity and inspire lifelong learning in the classroom. Join us in embracing the possibilities of ChromaCraft and revolutionize your teaching with STEAM Green Screen.



### **STEAM Motion Tracking Teaching**

Immerse yourself in the future of education with TrackTech: Innovating Teaching with STEAM Motion Tracking. This cutting-edge program combines Science, Technology, Engineering, Arts, and Mathematics (STEAM) with motion tracking technology to revolutionize teaching and learning experiences. Educators will explore the dynamic possibilities of motion tracking, leveraging it to enhance student engagement, comprehension, and creativity across various subjects. From interactive science experiments to immersive historical reenactments, participants will discover how motion tracking can transform traditional lessons into dynamic, hands-on experiences. Through hands-on workshops and collaborative projects, educators will gain practical skills in motion tracking setup, calibration, and integration into their teaching curriculum. Join us on the forefront of educational innovation and harness the power of TrackTech to inspire a new generation of learners.





### **STEAM Space Exploration**

Embark on a celestial journey of discovery with Cosmic Quest: Exploring the STEAM Space Exploration. This interdisciplinary program merges Science, Technology, Engineering, Arts, and Mathematics (STEAM) to delve into the wonders of outer space.

Participants will uncover the mysteries of the cosmos, exploring topics such as astronomy, astrophysics, and space engineering. From designing rockets to simulating space missions, learners will engage in hands-on activities that foster critical thinking, problem-solving, and creativity. Through interactive workshops and collaborative projects, participants will gain insights into the cutting-edge technologies driving space exploration and develop an appreciation for the vastness and beauty of the universe.

Join us as we ignite curiosity, inspire innovation, and reach for the stars in Cosmic Quest: Exploring the STEAM Space Exploration.



### **STEAM Ice Breaking**

Embark on an exhilarating journey into icy realms with the Frozen Frontiers: STEAM Ice Breaking Adventure. This innovative program merges Science, Technology, Engineering, Arts, and Mathematics (STEAM) to explore the fascinating world of ice and its impact on our planet. Participants will delve into the science behind ice formation, studying topics such as glaciology, climatology, and polar ecosystems. Through hands-on experiments and engineering challenges, learners will design and build structures capable of withstanding extreme cold and ice pressures. Integrating artistic elements, participants will creatively express their understanding of ice dynamics and environmental stewardship. Join us as we break through the icy barriers of discovery, fostering teamwork, creativity, and a passion for understanding the frozen landscapes of our world in the Frozen Frontiers: STEAM Ice Breaking Adventure.



### **STEAM Airplanes Adventure**

Embark on an exhilarating journey through the clouds with Skybound Odyssey: The STEAM Airplanes Adventure. This thrilling program seamlessly integrates Science, Technology, Engineering, Arts, and Mathematics (STEAM) to explore the marvels of aviation and flight. Participants will delve into the principles of aerodynamics, propulsion, and aircraft design, gaining insights into the science behind flight. Through hands-on workshops and engineering challenges, learners will design and construct their own model airplanes, applying engineering principles to optimize performance and efficiency. Integrating artistic elements, participants will unleash their creativity in designing unique aircraft livery and decorations. Join us as we soar to new heights of discovery, fostering teamwork, innovation, and a passion for aviation in the Skybound Odyssey: The STEAM Airplanes Adventure.



### **STEAM Young Coder Adventure**

Embark on an exciting coding journey tailored for young minds with CodeQuest: A STEAM Young Coder Adventure. This immersive program combines Science, Technology, Engineering, Arts, and Mathematics (STEAM) to introduce children to the fundamentals of computer programming in a fun and engaging way. Participants will dive into the world of coding languages like Scratch or Blockly, learning to create animations, games, and interactive stories. Through hands-on projects and creative challenges, young coders will develop critical thinking, problem-solving, and computational skills while expressing their creativity. Join us as we ignite a passion for coding, inspire innovation, and empower the next generation of digital creators in CodeQuest: A STEAM Young Coder Adventure.



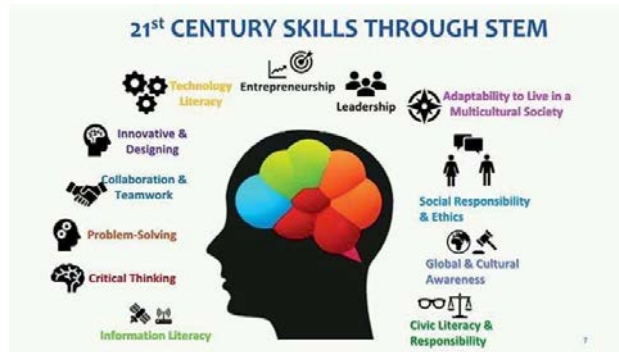
### **STEAM O-shape Track**

Embark on a thrilling expedition into the realm of dynamic motion with Innovation Circuitry: Exploring the STEAM O-Shape Track. This interactive program converges Science, Technology, Engineering, Arts, and Mathematics (STEAM) to unveil the secrets of motion and trajectory. Participants will delve into the principles of physics and engineering, designing and constructing O-shaped tracks to propel objects through twists, turns, and loops. Through hands-on experimentation and creative problem-solving challenges, learners will explore concepts such as kinetic energy, friction, and momentum while integrating artistic elements to enhance their designs. Join us in this exhilarating journey as we unravel the mysteries of motion and foster innovation in the Innovation Circuitry: Exploring the STEAM O-Shape Track.



### **STEAM Screenless Programming**

Dive into a world of hands-on exploration and creative problem-solving with CodeCanvas: Navigating STEAM Screenless Programming. In this innovative program, participants will embark on a journey through the realms of Science, Technology, Engineering, Arts, and Mathematics (STEAM) without the need for screens. Through tangible tools and physical manipulatives, learners will delve into the fundamentals of coding, honing their computational thinking skills and fostering creativity in a screen-free environment. From robotics to interactive art installations, participants will engage in immersive activities that encourage collaboration, critical thinking, and experimentation. Join us in exploring the boundless possibilities of screenless programming and unlocking the potential of CodeCanvas.



### STEAM 21st Century Skills

Embark on a transformative journey of skill-building and innovation with SkillCraft: Empowering Tomorrow's Leaders with STEAM 21st Century Skills. In this comprehensive program, participants will explore the dynamic intersection of Science, Technology, Engineering, Arts, and Mathematics (STEAM) to cultivate the essential skills needed to thrive in the 21st century. Through hands-on projects, collaborative challenges, and interdisciplinary learning experiences, learners will develop critical thinking, problem-solving, creativity, communication, and collaboration skills. From coding and robotics to design thinking and entrepreneurship, SkillCraft equips participants with the tools and mindset necessary to navigate an ever-changing world and make meaningful contributions to society. Join us in shaping the leaders of tomorrow through SkillCraft's innovative approach to STEAM education and 21st century skill development.



### STEAM IQ Board Game

Embark on a captivating journey of intellect and strategy with MindForge: The Ultimate STEAM IQ Board Game Experience. This innovative board game seamlessly blends elements of Science, Technology, Engineering, Arts, and Mathematics (STEAM) with engaging gameplay to challenge players' cognitive abilities and creativity. Participants will immerse themselves in a dynamic world where they'll tackle complex problems, solve puzzles, and unleash their strategic prowess across various STEAM disciplines. From engineering challenges to artistic expression, each game session offers a unique opportunity for players to expand their knowledge and sharpen their skills. Join us in the adventure of MindForge and unlock the full potential of your STEAM IQ in this thrilling board game experience.





### **STEAM Python and Data Science**

Embark on a transformative journey into the realm of data-driven discovery with Pythonic Insights: Navigating the World of Data Science. In this comprehensive program, participants will delve into the powerful intersection of Python programming and data science, leveraging cutting-edge tools and techniques to extract actionable insights from vast datasets. From data wrangling and visualization to machine learning and predictive analytics, learners will master the essential skills needed to tackle real-world challenges and uncover hidden patterns in data. Through hands-on projects, interactive workshops, and real-world case studies, participants will gain practical experience in using Python libraries such as NumPy, pandas, Matplotlib, and scikit-learn to analyze and interpret complex datasets. Join us in unlocking the full potential of Python and data science and revolutionize your approach to decision-making and problem-solving with Pythonic Insights.



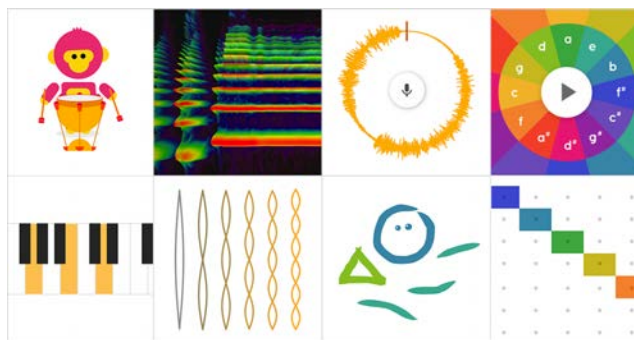
### **STEAM Rubik Cube Challenge**

Embark on an exhilarating journey of problem-solving and creativity with Cubik Quest: The Ultimate STEAM Rubik's Cube Challenge. This immersive program blends elements of Science, Technology, Engineering, Arts, and Mathematics (STEAM) with the timeless puzzle of the Rubik's Cube, offering participants a thrilling and educational experience. Participants will explore the mathematical principles behind the Rubik's Cube, mastering algorithms and strategies to solve the puzzle efficiently. Through hands-on workshops and collaborative challenges, learners will develop critical thinking, spatial reasoning, and perseverance while engaging with one of the most iconic brainteasers of all time. Join us in Cubik Quest and unlock the secrets of the Rubik's Cube while honing your STEAM skills in a fun and interactive environment.



### **STEAM 6 bricks world**

Embark on a creative odyssey through the realms of Science, Technology, Engineering, Arts, and Mathematics (STEAM) with BrickScape: Crafting a STEAM 6-Brick World. In this innovative program, participants will harness the power of just six bricks to explore endless possibilities in design, engineering, and creativity. From constructing simple machines to designing architectural marvels, learners will engage in hands-on challenges that promote critical thinking, problem-solving, and collaboration. Through experimentation and iteration, participants will discover the interconnectedness of STEAM disciplines and unleash their imagination to craft a world of limitless potential. Join us in BrickScape and unlock the transformative power of STEAM through the simplicity of six bricks.



### **STEAM Audio Make Lab**

Embark on a transformative journey into the world of sound and technology with Sonic Synthesis: STEAM Audio Make Lab. This innovative lab merges Science, Technology, Engineering, Arts, and Mathematics (STEAM) to explore the creative and technical aspects of audio production and manipulation. Participants will dive into hands-on projects where they will design and construct their own audio devices, experiment with sound waves, and explore the principles of acoustics and digital signal processing. Through collaborative workshops and interactive experiments, learners will develop critical thinking, problem-solving, and teamwork skills while unleashing their creativity in a dynamic and immersive environment. Join us in Sonic Synthesis and discover the art and science of audio creation in the STEAM Audio Make Lab.



### **STEAM Wind Up Car**

Embark on a breezy adventure into the world of STEAM with "Breezy Drive: Exploring STEAM Wind-Up Cars." In this interactive program, participants will delve into the realms of Science, Technology, Engineering, Arts, and Mathematics (STEAM) as they design and construct their very own wind-up cars. Through hands-on experimentation, learners will explore the principles of mechanical engineering, aerodynamics, and energy transfer, gaining a deeper understanding of how wind-up mechanisms propel vehicles forward.

Participants will also have the opportunity to integrate artistic elements into their designs, adding a creative flair to their creations. Join us in "Breezy Drive" as we harness the power of wind-up technology and creativity to drive innovation in the world of STEAM.



### **STEAM Unplugged Coding**

Embark on an imaginative journey into the world of coding without screens with CodeCraft: Unplugged Adventures in STEAM Coding. In this innovative program, participants will explore the foundational concepts of computer programming through hands-on, screen-free activities. Through engaging challenges and interactive games, learners will develop critical computational thinking skills, problem-solving abilities, and logical reasoning—all while experiencing the magic of coding in a tangible and accessible way. Join us in CodeCraft as we ignite creativity, foster collaboration, and inspire innovation through the power of unplugged coding in the STEAM realm.



### **STEAM The Earth**

Embark on an awe-inspiring journey into the heart of our planet with "Gaia's Canvas: Exploring the STEAM of Earth." In this immersive program, participants will delve into the interdisciplinary realm of Science, Technology, Engineering, Arts, and Mathematics (STEAM) to unravel the mysteries and marvels of Earth. From the depths of the oceans to the heights of the atmosphere, learners will engage in hands-on exploration of Earth's geological, ecological, and atmospheric systems. Through interactive workshops, creative projects, and collaborative challenges, participants will deepen their understanding of Earth's interconnected ecosystems and the role of human innovation in addressing environmental challenges. Join us in "Gaia's Canvas" as we discover the beauty, complexity, and fragility of our planet through the lens of STEAM.



### **STEAM Y-shape Track**

Embark on an exhilarating journey of exploration and innovation with the "Y-Track Odyssey: Unraveling STEAM with a Y-Shape Track." This dynamic program integrates Science, Technology, Engineering, Arts, and Mathematics (STEAM) principles to explore the exciting world of motion and trajectory. Participants will delve into the physics of motion as they design and construct their own Y-shaped tracks, experimenting with forces, angles, and velocity. Through hands-on experimentation and creative problem-solving challenges, learners will deepen their understanding of STEAM concepts while honing critical thinking and teamwork skills. Join us on the "Y-Track Odyssey" and unleash your creativity and curiosity as we navigate the fascinating intersection of STEAM disciplines.