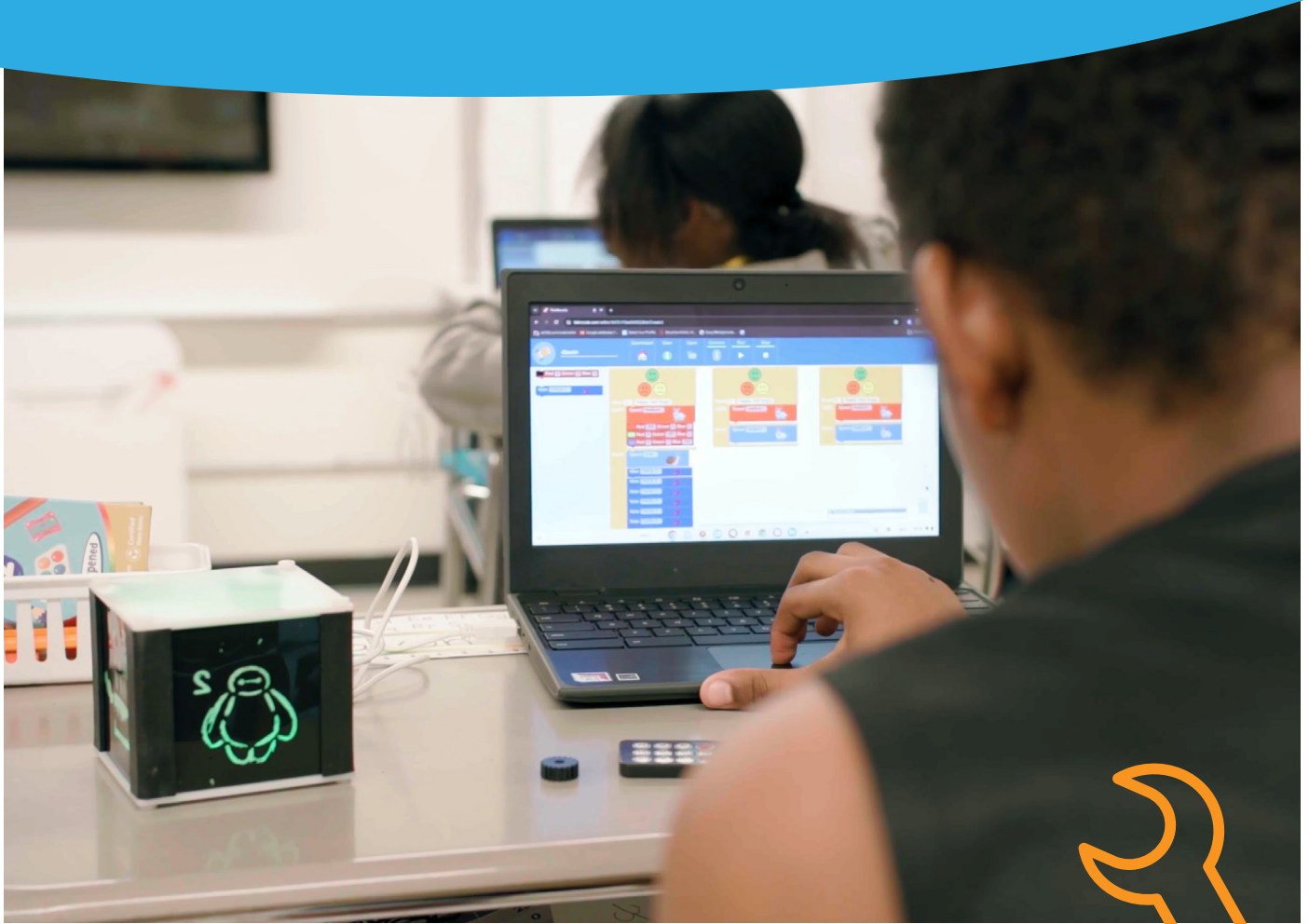**Program Guide**

# The #1 STEAM Education Program

Grades K-8

Foundational Workforce Skills and STEAM Readiness

TinkRworks is a hands-on STEAM curriculum for K-8 classrooms designed to equip students with the skills, knowledge, and capabilities needed to succeed in the 21st century workplace. Developed by teachers and engineers, TinkRworks utilizes the design process and Project-based Learning to engage students in unprecedented ways. Our STEAM curriculum also supports core instruction and is aligned to state science, math, language arts, and computer science standards.
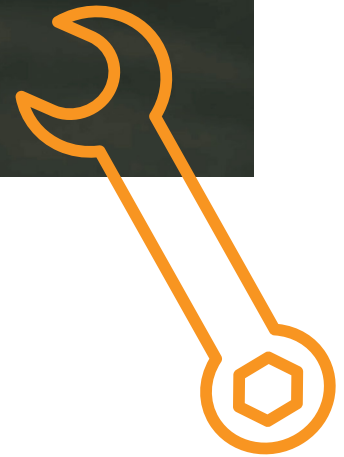
What Differentiates TinkRworks?
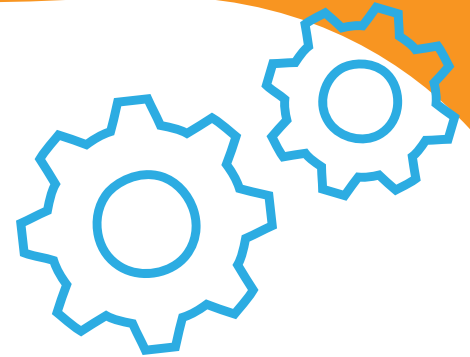
STEAM, not STEM

At TinkRworks, we proudly advocate for "A" in STEAM. Studies show how the arts positively impact student achievement when integrated into a STEM practice. STEAM helps students make critical connections and learn design principles and standards. These provide a valuable framework for solving problems and inspire curiosity, inquiry, and innovation.

Advance Equity and Accessibility

At TinkRworks, we believe that every student has the capacity to achieve STEAM greatness. Through Project-based Learning and differentiated instruction, our curriculum ensures that all students have access to participate in the productive development of STEAM skills and knowledge.

Cultivate Social & Emotional Learning

Laser-focused, skills-rich projects teach essential STEAM concepts while also developing SEL competencies like kindness, self-expression, and resilience. By highlighting SEL alongside academic achievement, TinkRworks helps students develop essential interpersonal skills.
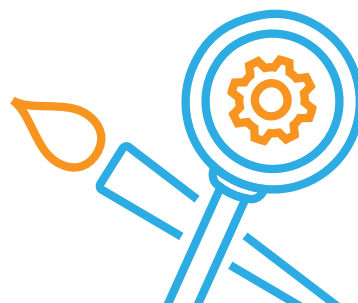
STEAM Instruction Made Simple

TinkRworks supports teachers at every step — no extra preparation required. An online Portal equips teachers with all the tools they need to ensure a successful implementation.

Manage Classes and Facilitate Instruction

Teachers can find all the tools they need to complement essential standards, support project construction, administer assessments, and organize classes.

Lesson Plans: Detailed curriculum maps provide a comprehensive overview for each lesson—including learning objectives, key concepts, vocabulary, pacing suggestions, and how content is aligned to grade-specific standards.

Instructional Slides: Content-rich slides are used to help structure lessons with background information and to lead classroom discussion.
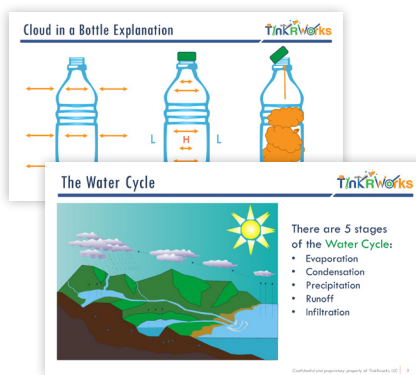
Assessments: Formal and informal assessments offer a combination of multiple choice, written response, and true/false questions.

User-friendly Coding Environment

TinkRcode, our drag-and-drop, block-based programming environment helps students develop algorithms and create code that is uploaded wirelessly to projects. Each student's custom code for their project's various components (including lights, speakers, motors, and more) brings their project to life in their own unique way. No prior coding experience required — for teachers or students.
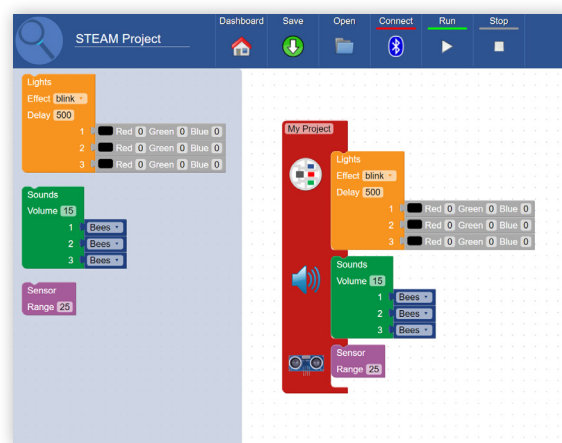
Ongoing Professional Development

You don't need to be a STEM expert, Project-based Learning whiz, or have experience with coding to teach TinkRworks. We provide customized PD to ensure effective implementation. If you run into any technical or curricular questions during implementation, we're here to help! Partnering with TinkRworks means you can expect responsive and personalized assistance from our support team.

5

STEAM Implementation Made Simple

Ready-to-teach projects that include *everything* you need
to deliver comprehensive, grade-appropriate STEAM instruction.

Two Types of Project Kits:

Make-and-Take Kits

Many TinkRworks' projects are consumable — meaning students receive their very own project kit that they can customize and take home to keep. This means the learning adventure doesn't end in the classroom. Students can continue to engage with STEAM and bring their ideas to life long after the curriculum is complete.

Reusable Kits

Select projects are designed with reusability in mind. Reusable projects can be implemented with students, disassembled, and used again with another group of students throughout the day or school year — creating endless opportunities to reinforce key concepts.
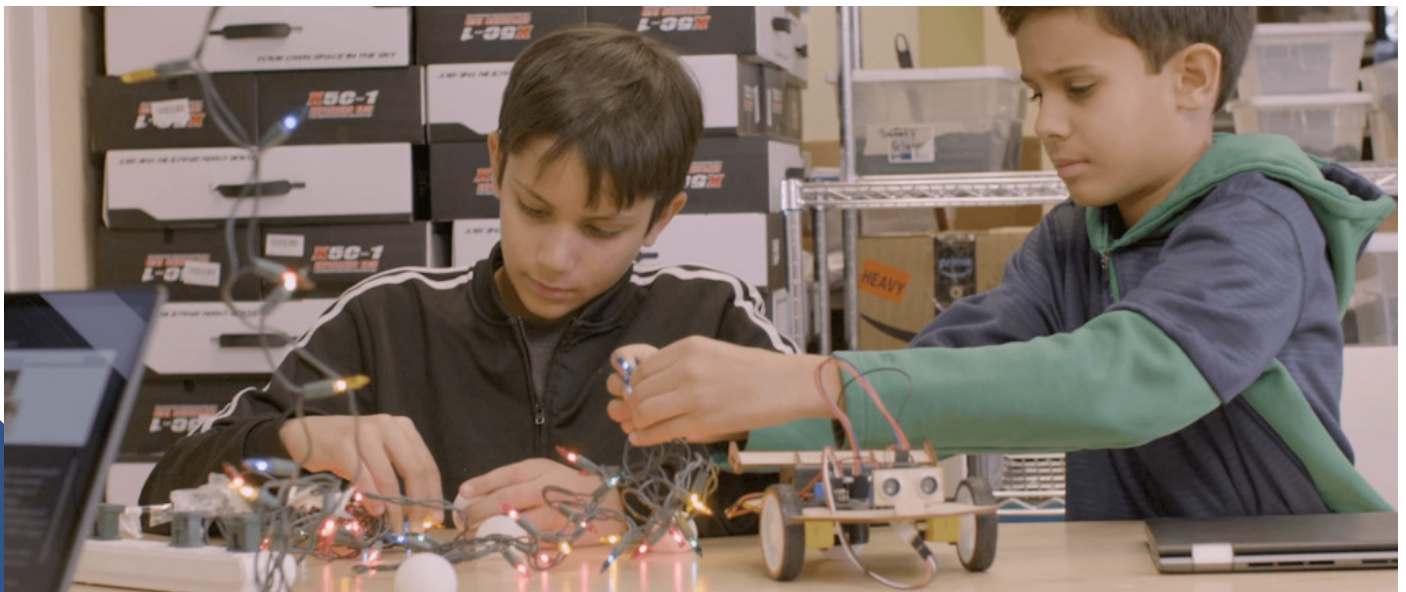
Flexible Implementation

Personalize your instructional time with TinkRworks. Each project provides 10-18+ hours of instruction and can be used in science class, STEM lab, after school, and summer school.

APPROACH	MODEL	SCHEDULE
Targeted	Supplemental Science Class STEAM Club Extended Day	Once or twice weekly for 45-60 minutes up to 15 weeks
STEAM Everyday	STEAM Lab Summer School Extended Day	Every day for 45-60 minutes over a 5-6-week period

Now You Have a Makerspace

A makerspace, large or small, unlocks the potential of STEAM in K-8 schools. From a STEM Lab to a corner in a science classroom, makerspaces elevate learning and blur the lines between learning and making. Here, students are not just passive learners; they're creators, innovators, and architects of their own knowledge. TinkRworks helps schools embrace the spirit of making — giving students a strong foundation for college and the workforce.
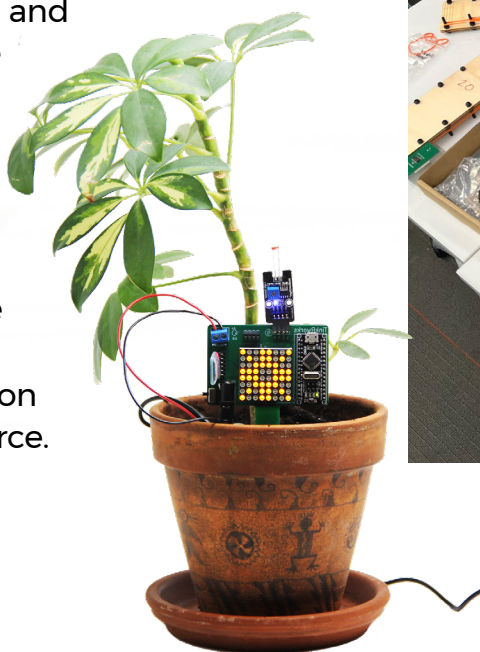
Award-Winning Lineup of STEAM Projects

Visit TinkRworks.com to learn more about each project, explore standards, and download samplers.

Pushes, Pulls & Pins
Grades K-2

Strike up the fun with Project-based Learning! Students design a custom tabletop bowling game, exploring forces, motion, and collisions, while using programming to personalize lights and sounds.
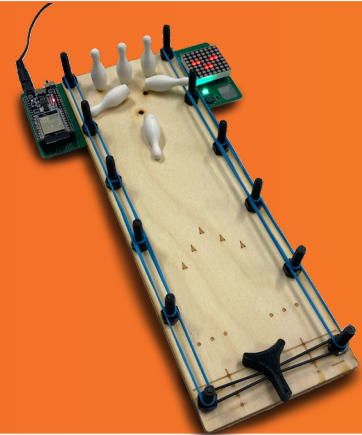
Smart Lamp
Grades 1-2

Illuminate learning with inspiring hands-on STEAM! Students build and personalize a color-changing Smart Lamp that plays music, exploring light, sound, and programming while connecting emotions with creative expression.

Art Electric
Grades 1-8

Ignite imagination with programmable art! Students bring interactive masterpieces to life using coding, design, electronics, and motors, blending technology and creativity while developing essential STEAM skills.

Pampered Plant
Grades 2-5

Cultivate curiosity through plant science and art! Students design a dynamic plant monitoring system, programming a light display that reacts to soil and light changes, while honing creativity, coding, and problem-solving skills.

Tech-A-Sketch
Grades 3-5

Paint a bright future with STEAM! Students build and design a personalized digital canvas. Through coding custom brushes and crafting interactive artwork, students explore coordinate systems, displays, and shape plotting.

TinkRbot Scout
Grades 3-5

Spark innovation with the ultimate robotics STEAM experience! Students build, code, and personalize custom robots, developing grade-appropriate skills in problem-solving, programming, and engineering while tackling real-world challenges and unlocking endless possibilities in the world of robotics.

LaunchPad
Grades 3-8

Unlock a world of STEAM in the palm of your hand! Students code games, light shows, and more with an electronic circuit board fully equipped with touch sensors, lights, sounds, and accelerometers. Explore coding fundamentals while bringing ideas to life through hands-on problem-solving and creativity.

TinkRdrone
Grades 6-8

Take hands-on learning to new heights! Students design, build, and fly their own quadcopters while exploring lift, thrust, and electronic systems. Hands-on experimentation fosters engineering skills, data visualization, and computational thinking in an exciting, real-world learning experience.

TinkRbot Explorer
Grades 6-8

Engage your classrooms in an exciting, hands-on robotics experience! Students build and program robots to navigate their environment and tackle real-world challenges. This dynamic project enhances coding skills, sparks creativity, and strengthens critical thinking while bringing engineering concepts to life.
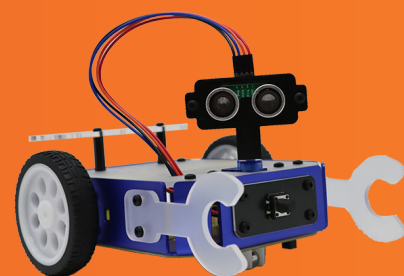
TinkRsynth
Grades 6-8

Make some noise with STEAM! Students design and program a sound mixing board, exploring coding, sound waves, and music composition. This hands-on project builds STEAM skills while sparking creativity and collaboration—turning the classroom into a high-tech jam session!

Coming Soon

Innovation never stops at TinkRworks! We're busy developing exciting new projects for our award-winning STEAM curriculum. These groundbreaking experiences will make hands-on learning more affordable and engaging than ever!

Curriculum-Rich Projects for Grades K-8

PROJECTS	BEGINNER PROGRAMMING ENVIRONMENT			ADVANCED PROGRAMMING ENVIRONMENT					
	K	1	2	3	4	5	6	7	8
Pushes, Pulls & Pins ♻	✔	✔	✔						
Smart Lamp ♻		✔	✔						
Art Electric		✔	✔	✔	✔	✔	✔	✔	✔
Pampered Plant ♻			✔	✔	✔	✔			
Tech-A-Sketch ♻				✔	✔	✔			
LaunchPad ♻				✔	✔	✔	✔	✔	✔
TinkRbot Scout ♻				✔	✔	✔			
TinkRdrone							✔	✔	✔
TinkRbot Explorer ♻							✔	✔	✔
TinkRsynth ♻							✔	✔	✔

♻ REUSABLE KITS

TARGET GRADE LEVELS

"I LOVE SEEING HOW MY STUDENTS THINK THROUGH THE DESIGN PROCESS AND KNOW THAT THESE ARE PROBLEM SOLVING SKILLS THEY WILL USE ALL THEIR LIVES."

– JACLYN FARLEY, K-8 STEM TEACHER, ST. ISAAC JOCQUES

"THE PROGRAM HELPS STUDENTS TO APPROACH PROBLEMS AND LEARN HOW TO PERSIST. THEY LEARN BY MAKING MISTAKES AND PROBLEM SOLVING. THIS IS HOW INNOVATION HAPPENS AND THIS IS WHAT HAPPENS IN LIFE."

– AARON ESPER, PH.D., DIRECTOR OF CTE AND SPECIAL PROJECTS, THE CAREER ACADEMY NETWORK OF PUBLIC SCHOOLS

"A BIG WOW FACTOR FOR US IS THAT THERE'S A LOT OF DISCOVERY AND JOY DURING THE EXPERIENCE OF UNPACKING THE SCIENCE AND DEVELOPING A PROJECT."

– JON BARICOVICH, DIRECTOR OF ASSESSMENT AT COOK COUNTY/ SUMMIT DISTRICT 104

"TEACHERS WHO DO NOT SEE THEMSELVES AS CODING EXPERTS FIND LOTS OF COMFORT IN TINKRWORKS. THE RESOURCES AND CUSTOMER SERVICE IT PROVIDES HELP THEM BECOME MORE EFFECTIVE FACILITATORS OF CODING CONCEPTS."

– REBECCA LARATTA, ED.S., ASSISTANT SUPERINTENDENT FOR CURRICULUM, INSTRUCTION, AND STUDENT SERVICES, GOWER SCHOOL DISTRICT 62

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