Kodely Partnership Boilerplate

Introduction

At Kodely, we are dedicated to transforming education by integrating project-based STEM and technology education into K-12 curriculum. Our mission is to ignite futures through career-connected learning, preparing students with the skills they need to succeed in the 21st-century workforce.

<u>Empowering Success in Your District</u>
- Student achievement
- Personalized, multimedia-rich lessons & hands-on activities
- Equity and Inclusion
- Ensure equitable access to high-quality education for all students
- Teacher Development & Retention
- Tailored professional development and learning pathways

Partnership Opportunities

Kodely is committed to forming strategic partnerships that amplify educational engagement and outcomes. By partnering with us, you can support our efforts to provide high-quality STEM and technology education to students across various districts and schools.

Together, we can:
- Develop and implement customized learning environments.
- Create hands-on projects and standards-aligned curriculum.
- Provide training and professional development for educators.
- Build 21st century skills and improve achievement in math and science.

Conclusion

Join us in our mission to ignite futures through career-connected learning. Partner with Kodely to make a lasting impact on education and help prepare the next generation of students for a successful and dynamic future. For more information on how you can collaborate with us, please use our overview below to explore our programs or contact us directly.

Company Overview

Kodely is a national PK - 12 education company and a certified minority-owned enterprise business (MBE). Our mission is to empower students with essential 21st century skills, equipping them not only with digital literacy but also fostering the development of crucial soft skills vital for success in the workplace. We provide standards aligned curriculum, teacher professional development, and instructors for partnerships to implement STEM and CTE during the school day, after school, and in summer camps. Our student centered approach goes beyond academics, emphasizing the cultivation of adaptability and resilience. Kodely's programs instill lasting skills and values that empower students to navigate the challenges of careers in the 21st century.

Experience

Kodely, founded by a dynamic mother-daughter duo with over 25 years of collective experience in the tech industry, stands to innovate education through STEM. Established with the goal of preparing the next generation of students, Kodely is a result of the shared expertise and vision of STEM industry veterans. With a strong foundation in technology, our team is dedicated to bridging the gap between academic and the rapidly evolving demands of the professional world for students. Kodely is committed to nurturing agile minds that thrive in the face of adversity, ensuring a pathway to academic and career excellence.

Kodely curriculum is designed to integrate with classroom instruction and grade-level content with standards alignment to Next Generation Science Standards, state common core standards in math and science, and 21st century skills. Courses foster experiential learning to build student awareness and explorations of real-world applications of STEM. Educators use our courses as learning pathways to develop student 21st century skills and progression of learning for all grades.

Educators use Kodely curriculum to create inclusive learning environments that accommodate diverse learning abilities and needs. Students engage with their peers through collaboration, communication, empathy, self-awareness, and interpersonal skills. Over the past two years, we have trained 250 educators and placed 120 Kodely instructors at partnership sites. Our approach, featuring high-quality education content and comprehensive professional development for educators, aligns with school district goals leading to improved student achievement across core subjects. We achieve these outcomes across 152 sites, five district partnerships, and seven states as we continue to scale our services.

Kodely programs can be implemented in a traditional classroom, a virtual environment, or a hybrid model, providing flexible and customizable educational solutions to support the needs of each district. By partnering with Kodely, districts can ensure that their students are not only

meeting but exceeding educational standards for high school graduation. We share the goal of equipping every student with the skills to prepare for academic and career success.

Curriculum/Services

Kodely's curriculum is designed using STEM and CTE to build 21st century skills in critical thinking, problem-solving, scientific inquiry, and digital literacy among students. Each course outlined below contains 10-15 lessons of content aligned to national and state standards in mathematics, science, and ELA. Each course offers hands-on projects and interdisciplinary activities for students to engage in creating models, conducting experiments, and presenting their findings, which not only meets NGSS standards but also prepares them for careers in STEM fields. Learning pathways for grade bands promote educational stability in STEM as students progress through school.

K-1	Little Entrepreneurs	Prototyping & Play	Circuit Creators	Play-Doh World Explorers	Teamwork Titans
GRADES 1-3	Arcade 101	Behind the Scenes of Game Design	Inventing with Minecraft	Tinkercad 101	Rube Goldberg Lab
GRADES 4-5	Building with Microcontrollers	Advanced Arcade Game Design	Multiplayer Game Design	Well Rounded Innovators with Minecraft	
GRADES 6-8	Roblox Studio	UI/UX with Figma	Robotics with Microcontrollers & Python	3D Modeling with TinkerCAD	
GRADES 9-12	Python Basics	Python Game Development	Python with Math	AI with Robotics	Capture the Flag (Cybersecurity)

TK - K Grade Bands

Little Entrepreneurs

Unlock the potential of young entrepreneurs—where creativity meets business! Empower your child to design their own products, launch imaginative ventures, and build leadership skills in a supportive, engaging environment.

Prototyping & Play

Embark on an exciting journey into design and computational thinking! Join our workshop series where young adventurers unleash their creativity through thrilling quests. Become the hero of

your own story as you learn problem-solving, empathy, and innovation. Sign up now for a whirlwind of fun and discovery!

Circuit Creators

Ignite your child's curiosity with our Snap Circuits workshop! Dive into circuit design and electricity, creating radios, switches, motors, and more. Hands-on learning makes it a blast as they build their own contraptions. Spark their passion for STEM - sign up now and watch them shine!

Play-Doh World Explorers

Join our captivating Play-Doh World Explorers series! Delve into geography through creative playdough adventures. Enhance critical thinking and hands-on skills while fostering a love for exploration and learning.

Teamwork Titans

Prepare for an exciting workshop focused on collaboration, communication, and problem-solving! Build strong teams, hone communication skills, and tackle fun challenges. Become Teamwork Titans through interactive activities, equipped to conquer any challenge with effective communication and teamwork.

1st - 3rd Grade Bands

Arcade 101

Explore the world of gaming mechanics! Your child, in a beginner-friendly environment, will delve into the fundamentals of game design, enhance problem-solving skills, and ignite creativity by creating their own arcade game.

Behind the Scenes of Game Design

Unlock coding and game design with our MakeCode Arcade workshop! Your child will create fun games while learning design concepts and coding skills. The grand finale? An open house showcasing their creations. Spark their coding creativity—enroll now for fun and skill-building!

Inventing with Minecraft

Calling all young adventurers and Minecraft enthusiasts! Join our workshop combining Minecraft and coding. Your child will learn to mod and create custom creations in Minecraft Education, enhancing problem-solving and creativity. Empower your child to dream big and explore. Enroll today and let the adventure begin!

TinkerCAD 101

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Unlock the world of TinkerCad! In this engaging workshop, young minds dive into 3D design, nurturing creativity and transforming ideas into reality—all while strengthening core subjects like math, science, and spatial reasoning.

Rube Goldberg Lab

Welcome to our Rube Goldberg Lab! In this afterschool program, students unleash creativity and teamwork by designing elaborate chain reaction machines with everyday materials. They'll learn STEM principles, critical thinking, and persistence, culminating in a grand exhibition for parents to celebrate their achievements. Join us for a journey of invention and imagination!

4th - 5th Grade Bands

Engineering and Design: Building with Microcontrollers

Get hands-on with fun sensors and the micro:bit in our technology workshop! Each class offers new design challenges, from building a thermometer to creating a reaction time game and designing an Air Tag prototype. Perfect for inspiring your child's interest in real-world technology!

Advanced Arcade Game Design

Explore the exciting world of Advanced Arcade Game Design! Learn to create engaging and fun arcade games with advanced features such as interactive gameplay mechanics, dynamic level designs, and immersive storytelling. From designing challenging mazes reminiscent of classic Pac-Man to Crossy Road and Among Us, this course empowers you to bring your gaming visions to life with creativity.

Multiplayer Game Design

Join Kodely for our multiplayer arcade game design workshop! Students will learn to design engaging multiplayer arcade games, meeting the rising demand for immersive online gaming experiences. Perfect for those passionate about game design and seeking a challenge, this workshop also offers the social interaction and engagement unique to multiplayer games.

Well Rounded Innovators with Minecraft

If your child loves Minecraft and wants to learn how to mod and build custom creations with coding, this is the perfect class! They'll develop problem-solving skills within Minecraft's open-ended world, joining a community of makers who dream up new creations. Through coding mods and add-ons, they'll unleash their creativity and learn valuable programming skills.

6th - 8th Grade Bands

Roblox Studio

Students design and code Roblox games, applying math, science, and technology concepts gaining valuable CTE-related skills in digital design, programming, and game development. This

program teaches software development and project management skills, preparing students for future careers in game design, software engineering, and project management. Through hands-on learning, students are equipped for roles in the rapidly growing tech and entertainment industries.

UI/UX with Figma

Students dive into the mindset of UI/UX designers in this workshop! They explore the world of design tools and software that streamline the wireframing and prototyping process. Figma's unique built-in features make prototyping stand out, allowing students to create logos, icons, and website screen prototypes. It's a hands-on exploration of UI/UX design and a glimpse into a potential career path.

Robotics with Microcontrollers & Python

This workshop is ideal for students eager to delve deeper into programming, moving beyond block coding into Python! Each class, they'll craft Python projects, witnessing their code in action through a micro:bit, a simple electronic device. From crafting a compass to an interactive pet, each project introduces new aspects of electronics and software, fostering growth and creativity.

3D Modeling with TinkerCAD

Embark on a creative journey into 3D modeling with TinkerCAD! This hands-on workshop introduces the basics of crafting 3-D models using intuitive tools. From designing futuristic buildings and personalized jewelry to inventing mechanical contraptions and educational models, participants unleash their creativity and bring ideas to life in a virtual space. Perfect for budding designers and tech enthusiasts, TinkerCAD makes learning 3D modeling interactive, enjoyable, and applicable across various disciplines.

9th - 12th Grade Bands

Python Basics

This workshop is ideal for students eager to delve deeper into programming, moving beyond block coding into Python! Each class, they'll craft Python projects, witnessing their code in action through a micro:bit, a simple electronic device. From crafting a compass to an interactive pet, each project introduces new aspects of electronics and software, fostering growth and creativity.

Python Game Development

Students create their version of the classic Asteroids game using Python, combining programming with design thinking and problem-solving. They plan, code, test, and refine game mechanics, learning software development cycles, project management, teamwork, and iterative development. This course fosters creativity and technical proficiency, preparing students for careers in software development, project management, and digital product design.

Kodely Partnership Boilerplate

<u>Python with Math</u>
This course integrates Python programming with math, encouraging students to solve real-world problems using design and problem-solving skills. Projects include algorithm development, statistical analysis, and mathematical modeling, preparing students for technical roles in engineering, R&D, and quality assurance. Mastering Python for complex math problems is crucial for innovation in aerospace, automotive, and manufacturing technology.

<u>AI with Robotics</u>
Students work on AI projects using Raspberry Pi, like autonomous vehicles and smart home systems. This course covers machine learning, sensor integration, and real-time data processing, emphasizing AI applications in manufacturing and technology. Students develop skills in intelligent systems, crucial for modern manufacturing, predictive maintenance, and smart infrastructure.

<u>Capture the Flag (Cybersecurity)</u>
Students engage in cybersecurity "Capture the Flag" challenges, developing skills in network security, ethical hacking, and digital forensics. The course covers threat detection, vulnerability assessment, and incident response. These skills are essential for protecting technological infrastructure in manufacturing, energy, and transportation industries.

<u>Professional Learning</u>
Professional development opportunities are essential for educators to effectively implement the proposed curriculum and programs. These opportunities focus on fostering critical thinking skills, promoting cross-curricular connections, and enhancing teaching strategies for diverse learning abilities. It forms the building blocks for a STEM and CTE foundation to increase their confidence.

To ensure the highest quality of instruction, teachers are required to obtain certification for each course before teaching Kodely courses. This certification process enhances teacher skills, ensuring they are well-prepared to deliver engaging and effective lessons. Educators gain unlimited access to Kodely Classroom Professional Learning Communities and Support Community.