Igniting Futures in Tech

SparkNC **empowers students** to discover careers in high-tech fields like cybersecurity, artificial intelligence and machine learning, software development, and computer systems engineering.

We help schools move away from traditional classes and rigid schedules. Instead, **students choose what, where, and how they learn** and **educators have flexibility** to use innovative strategies to deliver instruction in engaging ways to students across the state.

We offer an **extensive and constantly evolving menu of learning experiences** to give students different paths to gain knowledge, build skills, and showcase what they learn in personalized digital portfolios of work. We also help students **connect with industry experts** through in-person events, team-based internships, and other rich experiences.

Imagine a future

where every North Carolina student has the skills needed to thrive in a world transformed by technology.

SparkNC gives North Carolina's students a **competitive edge** on their way to **high-wage and socially impactful careers**, providing a **dynamic, homegrown talent pipeline** for our state and our communities.

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A Completely New Way to Do School

At SparkNC, we're rethinking education to give students and our state a competitive edge in an uncertain future.

Learner-Centered

Students are encouraged to pursue learning experiences that **ignite their passions**. They choose what, where, and how they learn, selecting from an extensive and constantly evolving menu of learning experiences related to high-tech fields.

Completing **stackable units** instead of semester- or year-long courses and moving at their own pace, students can speed up or slow down based on their interests, abilities, and learning styles.

Industry-Relevant

Businesses partner with SparkNC to help students grow their **professional networks** and build the **durable skills** employers value. Students engage in problem-based learning and create strong **portfolios of relevant work** that demonstrate their readiness for college and careers.

Developing relationships with employers and grappling with **real-world challenges and projects**, students strengthen their preparation for high-tech careers.

Competency-Based

Students demonstrate their understanding of unit content and **receive credit by completing practical, real-world projects** that increase their appreciation of what's required to master specific high-tech skills. SparkNC sets learning targets and empowers expert educators to advise and support each student on a personalized path to success.

Showing what they know, students add real-world work products to their **digital portfolios** as they increase their understanding and awareness of what it's like to work in high-tech fields.

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High-Tech Fields

Artificial Intelligence

Computer Systems Engineering

Data Analytics

Design UX/UI

Software Development

Cybersecurity

Game Development and Design

Learning Experiences

Spark Scholars across our interdistrict network select from three types of learning experiences.

Live Units are designed and led by SparkLab Leaders and industry experts and offered either in-person or virtually across the interdistrict network of SparkLabs. Live Units expand the impact of volunteer experts, enabling students across the state to learn from tech professionals and build professional networks.

Experiential Units are live, in-person events and programs such as conferences, team-based internships, job shadowing, and other hands-on learning opportunities. Experiential Units take place in real-world settings that help learners build familiarity and comfort within professional high-tech environments.

On-Demand Units on SparkNC's platform let learners choose from a menu of learning experiences in high-tech fields and complete them at any time and at any pace that works for them. Some On-Demand Units may be completed individually, while others may be completed collaboratively in small groups.

Eight units, plus a required introductory module and a capstone experience, earns a student a local elective course credit toward high school graduation.

TRANSFORMING LEARNING FOR STUDENTS

SparkLabs

SparkLabs serve as the physical hubs of the Spark Scholar experience and are designed and built to be **modern, collaborative spaces** for teaching and learning. Districts have built their SparkLabs in high schools, centers for innovation, and other locations in their communities.

Each SparkLab has separate spaces focused on collaboration, high-tech computing, and individual work and ideation. Every SparkLab also has a hybrid teaching and learning zone that connects it with other SparkLabs across the state, creating an **interdistrict connected classroom** where teachers and industry partners can teach and interact with students across the network.

Students have access to the SparkLab **during and outside of the school day**. Students also participate in SparkNC beyond the SparkLab — at conferences and other special events, through internships, and working on projects at home or in other community locations, alone or with other Spark Scholars from across the state.

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ENGAGING WITH INDUSTRY EXPERTS

Business leaders value the opportunity to shape their future workforce by engaging with and encouraging the next generation of talent.
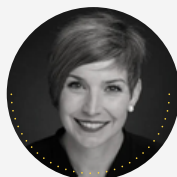
Business Partner Perspectives

Members of North Carolina's high-tech business community are eager to work with SparkNC and interact directly with Spark Scholars through a variety of special events, mentorships, hybrid teaching and learning opportunities, and work engagements like internships and job shadowing.

"

Companies like ours, we aren't just thinking about our workforce in terms of our current openings. We're asking, 'What's our workforce going to need to be in the next few years?' As a Business Advisory Council member for SparkNC, we're able to think through what will be most helpful for students as they consider their career opportunities."

Jennifer Bell
Director of Educational Partnerships

"Through experiential learning, SparkNC is helping close the digital literacy gap while empowering North Carolina's next generation of innovative leaders! Their mission is essential to our state's economic growth and development."

Dexter Robinson
Leader, Early-in-Career Talent

"SparkNC is a transformational model that empowers learners to pursue technology careers and show mastery of their learning in unique ways. The design of the program allows the learner to have a voice and choice in the process and gives them the agency they need to continue to learn. I have been sharing this model all over North America as an opportunity to truly think differently about our approach to education."

Adam Garry
Artificial Intelligence Consultant

SparkNC's Business Advisory Council also includes:

Sujatha (Suj) Perepa
Distinguished Engineer
IBM

Jena Collins
Manager, Strategic Initiatives

Cross-Sector Connections

> "Executives and investors rely on strong regional talent pools to make their companies successful. SparkNC can ensure North Carolina, a national innovation hub, is building a durable pipeline of future business leaders in technology."

Allen Mask
Managing Partner

CōLab

"Epic Games is excited to help students learn the skills required for entering careers in interactive 3D and emerging technology. Working with SparkNC enables us to provide excellent learning resources to the future workforce."

Steve Isaacs
Education Program Manager

EPIC GAMES

"SparkNC allows students to tailor their own education and reach their career potential. I'm thrilled to watch these ambitious students as they evolve into young professionals in our community."

Kate Groat
Director of Corporate Philanthropy

LiveOak Bank.

Industry partners support our work by serving on our **Business Advisory Council**, a group that is tapped to provide valuable thought partnership and engage with our team to vet bold ideas from the perspective of business leaders with a deep commitment to K-12 public education.

We also **collaborate with an extraordinary network of partners** to design and deliver learning experiences, support our operations and strategy development, and host special events to help students ignite their futures in tech.

Collaborative partners include:

Setser Group
we build the future of learning + work

NC STATE UNIVERSITY William and Ida Friday Institute for Educational Innovation

DISTRICT C

BETABOX LEARNING

ultisim DIGITAL TWINS

ApSeed Early Childhood Education

myFUTURENC 2 million by 2030.

North Carolina Department of PUBLIC INSTRUCTION

UNREAL ENGINE

UNCG **SCHOLASTIC ESPORTS ALLIANCE**

North Carolina School of Science and Mathematics

Transcend

STIEGLER EDTECH

GETTING SMART Think. Learn. Innovate.

inventXYZ

EdNC

education reimagined

Growing Our Interdistrict Network

After incubating in partnership with 17 school districts across North Carolina, we are continuing to innovate while setting our sights on serving students statewide.

SparkNC launched in 2022 with the generous support of the North Carolina General Assembly and in partnership with the North Carolina Department of Public Instruction.

In our first full year of implementation (2023-24), **we have partnered with 17 North Carolina school districts and one community college** to launch SparkLabs and engage students in learner-centered, industry-relevant, competency-based learning experiences.

Looking ahead to the coming school year, we are continuing to **evolve our work to better meet the needs of our Spark Scholars** and district partners as we position ourselves to meet the growing demand to reach more students across North Carolina.

In the next several years, we aim to scale our efforts so that **every district in North Carolina** has the opportunity to have a SparkLab and all students in North Carolina have access to SparkNC.

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www.sparknc.org

@wearesparknc

Strategic **Alignment**

Our strategic vision, unique approach to interdistrict collaboration, and emphasis on developing students' durable skills and providing them with opportunities to engage with real-world challenges aligns closely with the goals of other statewide initiatives, including the North Carolina **Portrait of a Graduate's** Durable Skills, BestNC's **Educator Innovation Plan**, and **myFutureNC's** statewide attainment goal of 2 million degrees or industry-valued credentials by 2030 among North Carolinians ages 25-44.

Evaluating **Impact**

We have enlisted the support of the **Program Evaluation and Education Research (PEER) Group** at North Carolina State University's Friday Institute for Educational Innovation to help us evaluate the effectiveness and impact of SparkNC over time.

Initial feedback and findings from our planning and pilot years point to several early wins and promising practices, including how our modular curriculum and learning experiences operationalize a learner-centered approach to instruction, and how our efforts to co-design SparkNC in partnership with district leaders and educators have engaged and empowered them to envision a new approach to teaching and learning.

National **Recognition**

⭐ **SparkNC was named a Top Ten finalist for the** **Education Innovation Showcase and Award** **at the ASU+GSV Summit.**

⭐ **SparkNC was one of 13 organizations from across the country featured in a** **National Report** **commissioned by the Carnegie Foundation for the Advancement of Teaching.**

SparkNC partners with public school educators across North Carolina who share our commitment to reimagining school.

A forward-thinking culture among leadership and staff and an openness to innovation are key factors that set schools up for success implementing the SparkNC initiative.

Are you willing to embrace new ideas and experiment with new approaches to teaching and learning?

Are you prepared to change your mindset and your practices?

Are you committed to prioritizing student agency and learner-centered decision-making?

If so, we'd be excited to work with you to bring SparkNC to your students.

Reimagining School

"**SparkNC is about disrupting the status quo** in the spirit of reimagining schools and how we connect students with the jobs of today and the future. District leaders can expect their assumptions to be challenged as we enhance our education practices to make North Carolina the number one state for education and innovation.

Dr. Whitney Oakley
Guilford County Schools
Superintendent

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Steps to Liftoff

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Determine the ideal location within your community for a SparkLab and outfit the space with the necessary technology and equipment.

As a SparkNC district partner, you commit to providing a physical space for a SparkLab at a location that best meets the needs of — and is accessible to — your students. Existing partner districts have elected to place SparkLabs in high schools, centers for innovation, and other locations throughout their communities.

Identify an outstanding SparkLab Leader to lead the launch of SparkNC in your district.

The ideal candidate for this role will embrace the opportunity to work at the leading edge of innovation in their district, support learners in new ways, guide Spark Scholars on their self-directed learning journeys, develop and deliver content, and build state and local partnerships.

Prepare your community for a "whole new way to do school."

Schools typically operate with rigid calendars, letter grades, and learning shaped by a common curriculum for all students in a "course." SparkNC offers a completely different educational experience not bound by the clock or the calendar — one where each student forges a unique path and builds a rich portfolio of work.

Collaborate with SparkNC and other partners to design and deliver engaging learning experiences.

SparkNC learning experiences include in-person events and programs as well as on-demand options, all of which build students' durable skills and increase their familiarity with employers and high-tech career pathways.

Embrace innovation while creating flexible, supportive learning environments rooted in learner choice and agency.

SparkNC's approach empowers students to direct their own learning. The North Carolina General Assembly has provided participating districts with policy flexibility to make this happen, and districts work with the SparkNC team to make the most of this space for innovation.
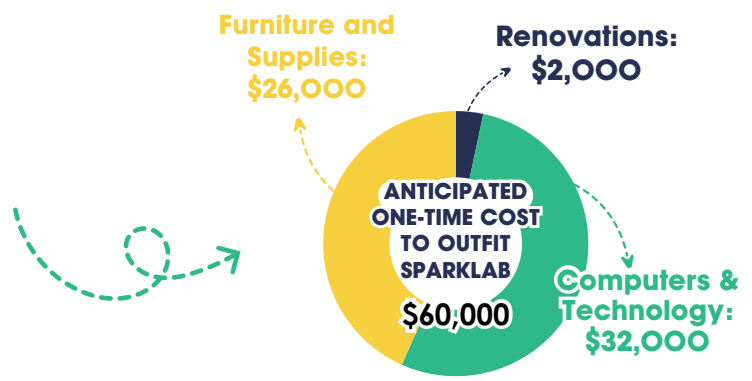
Anticipated Costs
to Launch SparkNC

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One-Time Costs

SparkLab Space and Equipment

It costs approximately $60,000 to **furnish and equip a SparkLab** to align with SparkNC's recommended **base configuration of furniture, technology, and other equipment**. That estimate includes anticipated costs associated with light renovations (e.g., wiring, painting, etc.), but these costs will depend on the space you identify for your SparkLab.
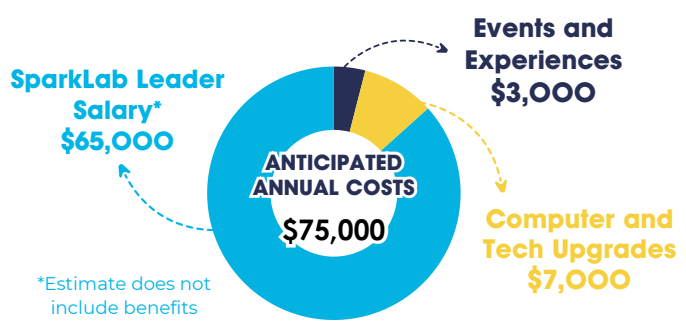
Furniture and Supplies: $26,000

Renovations: $2,000

ANTICIPATED ONE-TIME COST TO OUTFIT SPARKLAB
$60,000

Computers & Technology: $32,000

Annual Costs

SparkLab Leader Salary and Benefits

On average, it may cost up to $65,000 per year to cover the **base salary of a SparkLab Leader**, not including benefits or local bonuses, for 12 months. **These costs will vary** depending on how you structure the salary and benefits provided to your SparkLab Leader.

SparkLab Leader Salary* $65,000

Events and Experiences $3,000

ANTICIPATED ANNUAL COSTS
$75,000

Computer and Tech Upgrades $7,000

*Estimate does not include benefits

Student Events and Experiences

To support **local field trips and learning experiences** for students and cover related costs (snacks, supplies, transportation, etc.), expect to spend up to $3,000 annually.

Additions and Upgrades to Computers and Technology

SparkLab technology (particularly computers and software) will need to be **updated every 3-5 years to maintain relevance to industry needs and standards**. Exact costs will vary, but you can expect to spend approximately $7,000 per year on additions and upgrades.

Services and Supports

Access to SparkNC's Extensive Catalog of High-Tech Learning Experiences

SparkNC and partners develop new learning experiences and update existing units and SparkNC's dynamic learning platform based on student and educator feedback. SparkNC and partners also coordinate hands-on learning experiences for students across the state, including conferences, team-based internships, and other work-based learning opportunities.

Policy Innovation and Program Evaluation

SparkNC engages with policymakers and government agencies, advocating for continued flexibility and other policy positions that support our students and district partners. The SparkNC team is also engaging in a comprehensive, multi-year evaluation to help participating schools and districts evaluate the effectiveness and impact of SparkNC over time.

Professional Learning and Support

SparkNC's team provides comprehensive, year-round support to SparkLab Leaders and school and district partners, including:

- **Onboarding and continued coaching** (in group and one-on-one settings) in pedagogical approaches to operating a SparkLab and effective use of the platform through which student learning is monitored and demonstrated;

- **Communications support**, including the creation of resources and materials about SparkNC for participating schools and students and their families/caretakers;

- **Development support**, including assistance engaging with local corporate and philanthropic partners who may be interested in providing learning experiences and opportunities for students; and

- **Ongoing troubleshooting and training** as needed based on SparkLab Leader and district feedback.

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Sharing Costs

Sustaining Impact

North Carolina

State funding supports SparkNC's core operations and enables startup costs for school systems to launch SparkNC.

These startup costs contribute to SparkLab setup and provide a portion of the costs needed to pay the SparkLab Leader and operate the SparkLab. State policymakers also partner with the SparkNC team to identify and adopt policy changes needed to enable SparkNC to thrive. These policies will provide schools the support and flexibility they need to implement the SparkNC initiative and make it accessible to all interested learners.

Schools

School funding sustains key aspects of the SparkNC initiative over time.

SparkNC's support for participating school districts includes advising from experienced district finance officers, who guide schools in allocating funds to sustain SparkNC with local dollars beyond state startup support. This includes funding to support SparkLab Leaders as they implement the SparkNC initiative, make updates and upgrades to physical spaces and equipment, and develop engaging local learning experiences. School partners also leverage the learner-centered mindsets and practices encouraged by SparkNC to benefit all students, increasing the impact of our work over time.

Partners

Philanthropic and corporate support enables SparkNC to design new and innovative learning experiences for students and scale promising practices across SparkNC's interdistrict network.

Philanthropic and corporate partners engage with SparkNC to refine our model and continually develop and improve the menu of learning experiences available to learners. By investing in continuous improvement – driven by feedback from students, educators, and partners – SparkNC maintains our strong connections to industry and our ability to prepare Spark Scholars to meet the rapidly evolving needs of high-tech fields and the North Carolina economy.