

# **NEW TECH NETWORK**

The New Tech Network Model is a K-12 systemic approach to creating scalable and sustainable change so that all students are college and career ready.

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# OVERVIEW

New Tech Network (NTN) is a national nonprofit dedicated to systemic change in education. NTN centers K-12 schools as the units of change, working closely with district leaders, school principals, and classroom educators to co-design an implementation approach that enables the model to be adapted to local context. With more than 25 years of supporting schools and districts in change-making, NTN has the ability to recognize common patterns across systems and what is unique about each school and district community. NTN has worked with over 350 schools committed to these key focus areas: college- and career-ready outcomes, supportive and inclusive culture, meaningful and equitable instruction, and purposeful assessment.

NTN schools use project-based learning (PBL) and problem-based learning (PrBL) methods to ensure that learning is complex and authentic and to, in turn, help students develop the targeted

outcomes. The student experience is tied directly to deeper learning outcomes. Students gain skills and use their voices in ways that prepare them for life beyond school. PBL and PrBL allows students to engage with material in creative, culturally relevant ways, experience it in context, and share their learning with peers.

In addition to the research-based, whole school model, NTN offers Individual Services to build Deeper Learning Capacity, a selection of professional development services designed to build educator capacity and develop leadership



skills that enable schools to strengthen instruction, culture, assessment, and college and career readiness. <u>NTN Students – Beyond the Classroom</u>

### What Makes This Model Innovative?



#### Relevance

Projects are centered around authentic tasks ensuring that students see a larger purpose for mastering skills and concepts.



### **Rigorous Learning**

PBL requires contextual, creative, and shared learning. Students solve complex tasks that require critical thinking, creativity, and collaboration to answer challenging questions.



### **Active Self-Direction**

By making learning relevant and creating a culture of trust, respect, and responsibility, students are empowered to take ownership over their learning experience and school environment.

# **DESIGN**

### Goals

NTN's College- and Career-Ready Outcomes prepare each student for postsecondary success with the knowledge, skills, and mindsets to be ready for college and career. ► NTN Experience – A New Outcome There are five research-based outcomes:



Knowledge and Thinking	The key knowledge and thinking skills needed to move all students toward college readiness in each core discipline (math, ELA, science, social studies).
Collaboration	The ability to be a productive member of diverse teams through strong interpersonal communication, a commitment to shared success, leadership, and initiative.
Written Communication	The ability to effectively communicate knowledge and thinking through writing.
Oral Communication	The ability to communicate knowledge and thinking orally and engage in clear, thoughtful dialogue through group conversations and presentations.
Agency	The ownership over one's own learning, using a growth mindset to improve in any area through effort, feedback, and practice.

### **Experience**

The NTN model is guided by four Focus Areas: College- and Career-Ready Outcomes (see <u>Goals</u> above), Meaningful and Equitable Instruction, Purposeful Assessment, and Supportive and Inclusive Culture.



### **Meaningful and Equitable Instruction**

Instruction in the NTN model centers authentic, complex thinking and problem-solving through high-quality, relevant, project-based learning. This enables students to experience deep, contextual, shared learning, as well as acquire and demonstrate proficiency in college- and career-ready outcomes. To support a more equitable learning environment, the NTN model uses Learner-Centered Practices and a culturally sustaining approach. Schools can implement Learner-Centered Practices in silo or in tandem with PBL.

Comprehensive Guide to Project-Based Learning

Project-based Learning (PBL) and problem-based learning

**(PrBL)** methods ensure that learning is complex and authentic and to, in turn, help students develop the targeted outcomes. Projects center around authentic tasks that are provided before instruction to create a need to learn the relevant standards. Projects are driven by student inquiry, which fosters engagement and ownership, allowing students to engage in deeper learning. ▶ Project-Based Learning



**Learner-Centered Practices** enable the shift from a teacher-centered approach to a learning partnership between teachers and students. These practices encourage equitable collaboration and discourse, idea generation, diverse voices and perspectives, complex thinking, and problem solving. Two examples of NTN's Learner-Centered Practices are:

- **Chalk Talk:** Allows students to articulate, expand on, and revise their knowledge, helps students brainstorm and use written communication skills to connect with and gain insights from each other.
- **Card Sort:** Is a hands-on way to give students space to provide their own reasonings; it promotes self-assessment and can also serve as a formative assessment.

These versatile practices can be used to introduce new material instead of lecture or direct instruction. They can also be used as formative assessment, a way to review material, or an optional activity for remediation.

**Culturally Sustaining Approaches** enable educators to build a shared understanding of student cultural assets and build students' knowledge, skills, and mindsets – including their ability to critically examine systems (and system inequities) and engage in positive change. Equitable instruction requires intentional and explicit asset-based student-centered practices that critically analyze local and global issues from a variety of perspectives while leveraging student assets in the classroom. The NTN Model's instructional and cultural components are

designed to use student voice and data about their experiences to equip educators with the information needed to engage in culturally sustaining practices.

### **Purposeful Assessment**

The NTN model is student-centered. As such, all students share responsibility in their own learning. This takes on many forms including allowing students to give and receive feedback on work in order for reflection and revision to occur. A student-centered classroom uses assessment to inform instruction and emphasize learner growth and intrinsic motivation. And lastly, student-centered assessment prioritizes asset-based feedback to further build on learner strengths and support growth in knowledge and skills over time. Two examples of NTN's purposeful assessment practice are:

- Running Rubrics: Using a rubric to capture conversations about progress helps students
  understand criteria for the task and what next steps they might take, so that students
  take charge of their own learning. Running Rubrics also help students who are working
  towards mastery take action on feedback in a project or assignment.
- I used to think...Now I think: A formative assessment that helps students reflect on their thinking about a topic and explore how it has changed and encourages students to develop their reasoning abilities.

### **Supportive and Inclusive Culture**

The NTN model fosters a school-wide culture of belonging, care, community, and growth for adults and students. This type of culture helps ensure that students and teachers alike have ownership over the learning experience and school environment. In order to build a student-centered classroom, students must feel safe, supported, and valued as contributing members of the classroom community. Not only do relationships between student and teacher need to be a priority but also peer-to-peer relationships must be cultivated. School communities who actively commit to cultivating a supportive and inclusive culture create opportunities for all students to explore and sustain their cultural assets and identities and foster a learning community focused on collaboration and student voice.

NTN's culture reflect the following key shifts in the learning environment:

- Adopting an Asset-Based Mindset through self-reflective practices helps learners shift
  from a deficit-based mindset to examine the deeply held beliefs, behaviors, and practices
  that influence their perspectives, work and interactions with others.
- Cultivating a Learning Community helps shift power dynamics from a teacher-centered environment to a learner-centered environment, where each learner is an active contributor in the community.
- **Restorative Discipline** practices help shift traditional discipline practices to those that center humanity and prioritize social, academic, physical, and emotional well-being.

• **Social-Emotional Well-Being** practices help shift toward processes that empower learners to self-regulate their emotions and manage their thoughts and feelings to return to an integrated brain state.

Culture practices are required to create the kind of community that is supportive and inclusive for all students. Two of examples of NTN's culture practices are:

- **Co-Creating Community Agreements:** Generating active cooperation, collective sense-making and equitable inclusion of voices. Ensuring each and every student has an opportunity to co-create shared processes for engaging in learning is a key component of equitable learning environments.
- **Community Circles:** A ritual and routine that involves learners collectively connecting, reflecting, and developing social and emotional learning skills. When used routinely, community circles support the cultivation of belonging, care and community within a learning environment.

### **Supporting Structures**

The model requires alignment of principles and practices across the entire school community. For this reason, it requires significant shifts across many school structures, from curriculum and instruction & assessment to adult roles to technology.

In the NTN Model, courses are integrated and co-taught; in addition assessment of transferable skills like collaboration is critical.

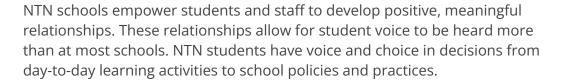
Courses at NTN schools are integrated and co-taught to make learning more authentic and relevant. NTN teachers work with their colleagues to develop an integrated curriculum that blends two or more subjects into one course (e.g. ELA 10 and World History combine into World Studies). These integrated subjects are taught collaboratively, with two or more teachers facilitating together in the same classroom. At the elementary level, projects are interdisciplinary and incorporate literacy and/or numeracy. Co-teaching allows for active modeling of collaboration, greater differentiation options for students, and ongoing observational and thought-partner feedback for staff.



CURRICULUM, INSTRUCTION, & ASSESSMENT

Assessment strategies at NTN schools reflect both content mastery and school-wide learning outcomes. Capstones or benchmarks often exist in the form of portfolio presentations or defenses, student-led academic conferences, or senior projects. Authentic assessments of each learning outcome are embedded throughout the curriculum to enable the evaluation of both collaborative and individual achievement. NTN, in partnership with SCALE from Stanford University, developed rubrics for each learning outcome to ensure that students are being provided with regular feedback on their growth and needs in each of these areas. NTN Learning Outcome Rubrics

# The school culture must be inclusive and built on trust and meaningful relationships to empower all.



By making learning relevant and creating a collaborative learning culture, students become connected to, engaged with, and challenged by their school, their teachers, and their peers. Students have ownership over the learning experience and their school environment. 

Professional and Student Culture

# SCHOOL COMMUNITY & CULTURE

NTN is intentional about creating a culture of trust so that students feel safe and are able to take the risks required in project-based learning. Students regularly and actively collaborate on projects and build positive relationships with peers and staff members. To further maximize collaboration and connection, advisory classes are also common at NTN schools to provide more direct care for school culture development, individual socio-emotional support, and relationship building.

Adult collaboration is critical to enabling the co-teaching, inquiry-driven instruction, and teacher professional learning needed for the New Tech Model.



In project-based learning, teachers are not the gatekeepers of knowledge; they are facilitators guiding students through their inquiry. In addition, the co-teaching structure allows for teachers to collaborate and be more creative in their approaches and project planning. <a href="NTN Teachers - A New Approach">NTN Teachers - A New Approach</a>

# ADULT ROLES, HIRING, & LEARNING

NTN schools create opportunities for adult collaboration and learning by creating structures like grade-level teams and common planning time. Staff have dedicated common learning time to meet, plan, collaborate, and discuss curriculum and teaching strategies through Critical Friends or other protocols.



Staff participate in NTN training events both prior to implementation and on an ongoing basis.



# FAMILY & COMMUNITY PARTNERSHIPS

## Inviting community members in as experts is critical to make learning authentic and meaningful.

NTN teachers build connections to experts and organizations in their community. PBL and PrBL require students to regularly seek out interactions with adults and community experts to bring greater meaning and authenticity to learning. Not only does student engagement increase, but having an external evaluator of student work also helps place the teacher into the role of guide or coach, allowing students to see them as partners.

### NTN requires a technology-rich environment for student-centered, self-directed learning.

Through a technology-rich environment, teachers and students create, communicate, and access information as well as experience student-centered, self-directed learning.

Digital tools, cultivated and aligned content, and a community of shared learning are integrated to create a powerful platform to support student and adult learning.



# TECHNOLOGY & INFRASTRUCTURE

- 1:1 Environment –NTN schools have a 1:1 student to networked computer ratio in all secondary classrooms (optional for K-2 and recommended for 3-6).
- Echo NTN schools use Echo™ for project planning and staff learning structures. Echo supports
  - project-based learning and features an innovative gradebook that aligns with the deeper learning skills students are developing.
- NTN Help and Learning Center The NTN Help and Learning Center was created to support school leaders and teachers who have partnered with NTN to transform teaching and learning in their schools.



# **IMPLEMENTATION**

### **Supports Offered**

<u>New Tech Network</u> offers various supports to help you implement their approach.

All schools implementing the NTN Model must agree to meet the NTN Model

Commitments to ensure successful school implementation.

NTN Model
Cost Associated



NTN works in partnership with the schools to plan and support the implementation of NTN's whole school model. NTN has successfully partnered with over 350 schools and districts using their unique approach, which is highly structured but personalized to each community's needs. Schools first explore to learn more about the model and determine if it's a good fit, then they plan for implementation of the model, and finally, they launch the model in their own community.

#### **Learn More**

NTN Individual Services Cost Associated

Cost Associatea



NTN's individual services are a selection of professional development services designed to build educator capacity and develop leadership skills that enable schools to strengthen instruction, culture, assessment, and college and career readiness.

#### **Learn More**

NTN Practice Cards
Cost Associated



The NTN Practices Cards are a compilation of key cultural, instructional, and assessment practices aimed at cultivating equitable learning environments. These equity-centered practices, curated in card sets, provide strategies to design and implement learning that supports the NTN Focus Areas of Supportive and Inclusive Culture, Meaningful and Equitable Instruction, and Purposeful Assessment.

#### **Learn More**

### Reach

350

100,000

20,000

**Schools** 

**Students** 

Educators

### **Demonstration Sites**

The following sites are examples of learning communities that have successfully implemented the model.

**Aiken New Tech High School** 

Cincinnati, OH

7–12

Traditional Public

**Cedar High School** 

Shelton, WA 9-12

Traditional Public

**Central Hardin High School** 

Cecilia, KY 9-12

Traditional Public

### **Impact**

Numerous studies provide evidence of positive outcomes for students and teachers who participate in the NTN Model. To learn about their findings, data, and research methods in full, check out the following reports: NTN Benefits of Project-Based Learning NTN Impact Report 2023 NTN Impact Report 2022

### NTN students outperform their non-NTN peers in academics and postsecondary readiness.

- NTN students consistently and **significantly outperformed non-NTN students** on state exams, external assessments, and the ACT/SAT. <a href="#Peer Reviewed Impact 2019">Peer Reviewed Impact 2019</a>
- NTN students are college- and career-ready. NTN high school students had a **graduation rate of 95%**, compared to the national average of 85%. NTN students **persist in college at a rate of 82%**, compared to 74% nationally. NTN Impact Report 2021

NTN project-based learning creates an environment that positively impacts student learning, relationships, and technology use.

■ NTN students reported an experience of **stronger "instructional methods"** than non-NTN students on the Youth Truth Survey (New Tech Network, 2019).

- NTN students report engaging in **project-based learning and having technology integrated** throughout the curriculum more than non-NTN peers. NTN Impact Report
  2020
- NTN middle school students demonstrated significantly **higher engagement** (academic, social, and emotional), student agency, academic expectations, and school satisfaction than similar non-NTN students (New Tech Network, 2020).

### NTN students gained the academic, interpersonal, and intrapersonal skills necessary for success in postsecondary life and beyond.

- NTN elementary students **grew 42% in critical thinking skills** (New Tech Network, 2019).
- NTN students reported higher levels of interpersonal and intrapersonal competencies (Collaboration, Academic Engagement, Motivation to Learn, and Self-Efficacy) (New Tech Network, 2019).

### The NTN Model supports educator shifts to enable authentic student learning environments.

- The NTN approach supports and sustains adult shifts over time and provides consistent, high-quality virtual and in-person adult learning experiences. 

  ☐ Adult Capacity Impact
- Teacher professional learning experiences enabled authentic student learning environments. Bells Case Study
- NTN educator professional growth challenges the established "rhythm" of schooling and requires reflection on beliefs, values, identity, and mindsets. SCLN Case Study

Schools implementing the NTN model share their success stories. **\_\_Spotlight Schools** 

- "Students are connected with experts in the field, either virtually or in the school itself, including members of the community that can provide them with authentic working experiences... Students are now graduating prepared for life after graduation. They're workforce ready." Jerry Holtgren, Director, Niles New Tech
- "Joining New Tech Network provides us an opportunity to reframe many things about the school, not just project-based learning... Eliminating the deficit mindset about kids is the first step to establishing a culture that makes sure everyone in that school is focused on next-level readiness for these kids." – Patrick Malley, Chief Academic Officer, Bay City Public Schools

NTN's school model has been <u>vetted and approved</u> by the Texas Education Agency as supporting school improvement.

### **Contact**

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### **RESOURCES**



#### New Tech Network Website

This is the NTN website where you can learn more about the model.



### NTN Students – Beyond the Classroom

Hear from NTN alumni and see how the skills they learned from NTN continue to serve them in college and/or the workforce.



### NTN Experience – A New Outcome

An overview of NTN's five learning outcomes, a set of research-based outcomes that prepare every student for post-secondary college and career success.



# NTN Comprehensive Guide to PBL

A guide to project-based learning, including what it is, its positive impacts, key concepts, and NTN's unique approach.



### NTN Project-Based Learning

An overview of PBL at Winston Woods, an NTN school where students collaborate on challenging, authentic projects as they learn to explore, adapt, and engage the world around them.



### NTN Learning Outcome Rubrics

Rubrics to provide students with regular feedback on their growth and needs in each of the outcomes areas.



### NTN Professional and Student Culture

An overview of the school culture and the crucial relationship between professional culture and



### NTN Teachers – A New Approach

In PBL teachers are not the center of student inquiry; they are the guides to learning.



#### **NTN Model Commitments**

All schools implementing the NTN Model must agree to the NTN Model Commitments to ensure successful implementation of the NTN student culture at Wayne High School, an NTN school.

This new methodology has freed NTN teachers to be more creative and rekindle their love of teaching.

Model.







### **NTN Practice Cards**

A link to purchase NTN Practices Cards, a compilation of cultural, instructional, and assessment practices to design and implement learning that supports the NTN outcomes.

### NTN Benefits of PBL

An overview of the evidence supporting the effectiveness of project-based learning.

### Impact Report (2023)

NTN's annual impact report summarizes the reach and impact of the model for the 2023 school year.



### NEW TECH NETWORK IMPACT REPORT

### NEW TECH NETWORK **IMPACT REPORT**

#### Impact Report (2022)

NTN's annual impact report summarizes the reach and impact of the model for the 2022 school year.

### Impact Report (2021)

NTN's annual impact report summarizes the reach and impact of the model for the 2021 school year.

2021

### Impact Report (2020)

NTN's annual impact report summarizes the reach and impact of the model for the 2020 school year.



### Peer-Reviewed Impact (2019)

A peer-reviewed report setting forth NTN's evidence of impact.



### NTN Adult Capacity Impact

This research found that the NTN approach supports and sustains adult shifts over time.



### NTN Impact Bells Case Study

Ths case study conducted by NCREST at Bells Elementary School in South Carolina.



Summary of the NCREST report:
Adult Learning in the New Tech Network's
South Carolina Learning Network

Case Study research conducted by:

About NCREST

About this research

NCREST works to advance education stakeholders'

Funded by the ECMC Foundation, this study is one

INCLEST Works to diskince education assentations work of understanding of the complex and challenging work of nestructuring schools. NCREST was founded in 1990 by Linda Darling-Hammond and Ann Liberman, NCREST's current G--Directors are Jacqueline Ancess and Thomas Hatch. NCREST is affilized with the Department of Curriculum and Teaching, Teachers College, Columbia University.

Six principles of adult learning
"While learning may represent the acquisition of new
knowledge, growth implies the transformation of
knowledge into the development of the individual.
Growth is qualitative change, movement to a new level of
understanding, the realization of a sense of efficacy not

About this research Funded by the ECMC Foundation, this study is one product from a research initiative to document New Ted Metworks (NTNA) Sour-year South Carolina Learning Metwork initiative ECMLP. This research included assistance in learning metworks provided and provided the study of the study of the characteristic of events, and document analysis.

Elena Aguilar's Six Principles of Adult Learning (2014) draw upon the work of Malcolm Knowles (1973), Jane Vella (2002), Paolo Freire (1970) and others to summarize what is known about adult learning and illustrate its application to the unique challenges confronted by educators who design and implement professional development for adultsign and implement professional development for adultsign

### NTN Impact SCLN Case Study

This Case Study conducted by NCREST at South Carolina Learning Network.



### NTN Spotlight Schools

Profiles about schools implementing the NTN Model.