AN INTRODUCTION TO PERSONALIZED LEARNING

WHAT IS PERSONALIZED LEARNING? WHAT IS PERSONALIZED, COMPETENCY-BASED LEARNING? At KnowledgeWorks, our definition of personalized learning is rooted in our belief that all children can learn, should be challenged to take ownership of their learning as individuals and empowered with the academic knowledge and social-emotional skills they need for the future.

WHAT DOES PERSONALIZED, COMPETENCY-BASED LEARNING MEAN? At Personalized learning means creating engaging learning experiences customized to each student’s strengths, needs and interests. At KnowledgeWorks, we believe the most effective way to personalize learning is through personalized, competency-based learning. In a personalized, competency-based learning environment:

» Students daily make important decisions about their learning experiences, how they will create and apply knowledge and how they will **demonstrate their learning**

» Assessment is a meaningful, positive and empowering learning experience for students that yields **timely, relevant and actionable evidence**

» Students receive **timely, differentiated support** based on their individual learning needs

» Students **progress based on evidence of mastery** or competency, not seat time

KnowledgeWorks.org
Students learn actively using different pathways and varied pacing

Strategies to ensure equity are embedded in the culture, structure and pedagogy of schools and education systems

Rigorous, common expectations for learning are explicit, transparent, measurable and transferable

WHY CHOOSE PERSONALIZED, COMPETENCY-BASED LEARNING?
Most students in our country experience the same education system their parents experienced though their world looks vastly different. While there may be some accommodation of student interests and learning styles, everyone advances at a similar pace regardless of whether they have mastered what’s been asked of them, or if they need additional time to reach their learning target.

Despite record graduation rates now at 84 percent, a deeper look at post-secondary readiness reveals that graduates of our current education system face significant gaps in knowledge and skills.

GAPS IN THE CURRENT SYSTEM

At a record high, 84 percent of public high school students reach graduation, as measured by the adjusted cohort graduation rate (ACGR), according to the National Center for Education Statistics.

According to the National Conference on State Legislators, 28-40 percent of all first-time undergraduates enroll in at least one remedial course. Less than 50 percent of students complete their remedial courses.

Of the career readiness competencies employers deemed as essential in research from the National Association of Colleges and Employers, they rated new graduates as 56 percent proficient in critical thinking/problem solving, 43 percent proficient in professionalism/work ethic, 77 percent proficient in teamwork and 42 percent proficient in communication skills.

RAPID CHANGE REQUIRES A NEW LOOK AT WHAT IT MEANS TO BE COLLEGE AND CAREER READY.
Based on recent research completed by KnowledgeWorks on the skills individuals will need for careers in 2040 and beyond, core social-emotional skills like emotional regulation, empathy and self-knowledge will be critical to help students succeed in a future that looks very different from today. Personalized learning addresses these needs by aligning education today with the needs of tomorrow.

KnowledgeWorks is a nonprofit organization dedicated to advancing personalized learning that empowers every child to take ownership of their success. With nearly 20 years of experience exploring the future of learning, growing educator impact and working with state and federal policymakers, our passionate team partners with schools and communities to grow a system-wide approach to sustain student-centered practices so that every child graduates ready for what’s next.

Get more resources to help make personalized learning a reality at KnowledgeWorks.org.
At KnowledgeWorks, our definition of personalized learning is rooted in our belief that all children can learn, should be supported to take ownership of their learning and should be empowered with the academic knowledge and social-emotional skills they need for the future. Policymakers play a key role in enabling and sustaining opportunities for personalized learning across their state.

**HOW CAN POLICYMAKERS SUPPORT PERSONALIZED LEARNING?**
To support high-quality personalized learning approaches, policymakers can:

» Build and articulate a vision for student success that ensures students, regardless of demographics, are equipped with academic knowledge, skills and social-emotional competencies to succeed in the future

» Establish policies that build the professional capacity of educators to teach and lead in personalized learning environments

» Create and advance policies that enable schools and districts to design, evaluate and refine personalized learning systems

» Engage diverse stakeholders in a system alignment process to ensure sustainability of personalized learning policies
WHY SHOULD A STATE ADOPT POLICIES THAT ENABLE PERSONALIZED LEARNING?

Adopting policies that enable personalized learning helps to:

» Create a more equitable education system with the flexibility and transparency needed to ensure equal opportunities for students and targeted supports that ensure each student has the knowledge and skills needed to graduate ready for the future

» Empower educators to meet each learner where they are with freedom to try creative ways to support individual student needs, learn from failure and collaborate to continuously improve

» Prepare students for whatever is next for them by helping them develop ownership of their learning, ensuring they develop critical knowledge and skills, empowering them to demonstrate mastery in their own way and encouraging them to pursue their talents and interests

WHY IS STATE POLICY NECESSARY TO SUPPORT PERSONALIZED LEARNING? HOW DOES IT HELP?

Our current education system was designed to support standardized teaching and learning practices. Over time, policies and structures have reinforced that paradigm. Teachers and local education leaders are now attempting to innovate to keep up with the exponential changes in the world, but these outdated policies impede success. Policies that support personalized learning and innovation will create a more responsive system that reflects the changing landscape while demonstrating a commitment to the success of all students.

WHAT ROLE DO STANDARDS PLAY IN PERSONALIZED LEARNING ENVIRONMENTS?

The state has an important responsibility to adopt education standards that clearly describe the knowledge and skills students need to master as they progress to graduation. Standards safeguard equity by outlining the learning expectations that every student must meet to ensure future success. While personalized learning allows for innovation and flexibility in how students learn, the learning standards remain consistent. States should adopt rigorous state-wide standards to ensure consistency among all districts, no matter the tax-base or zip code, ensuring students in low-income and high-income districts are held to the same expectations.
AN INTRODUCTION TO
COMPETENCY-BASED EDUCATION

WHAT IS COMPETENCY-BASED EDUCATION? Competency-based education is the best approach to personalizing learning for students. While personalized learning can exist at the classroom level, competency-based education, or CBE, often emerges as a systemic approach to ensuring personalization across a state, community, school district and/or throughout a school.

A competency-based learning environment includes the following elements:

» Each student gets what they need to reach their fullest potential and master high standards through flexible pathways, differentiated support, individual and collective tasks and multiple means and opportunities to demonstrate skill development

» Students have individual agency as well as collaborate in co-constructing pathways and measures of learning

» Standards, competencies and measures of mastery incorporate community input and voice to ensure pathways reflect universal design for learning and are culturally responsive, nonbiased and anti-racist.
HOW CAN COMPETENCY-BASED EDUCATION IMPROVE EDUCATIONAL EQUITY?
Competency-based education is based on the principle that all children can learn at high levels. Educators in competency-based education environments help students grow and deepen their learning from where they are and ensure every student succeeds, not just some.

In a personalized, competency-based learning environment, learning is focused on:

» Preparing students for an uncertain future: Robust supports from educators help students develop the skills they need to become self-advocates, critical thinkers and experienced collaborators, skillsets that will be necessary for supporting them in the future.

» Developing the whole child: In addition to academic growth, personalized learning emphasizes the importance of addressing each learner’s social, emotional, mental and physical needs.

» Empowering individuals to reach their potential: By helping students to develop individual ownership of learning, they are encouraged to explore their strengths and interests, and get the support they need to set and achieve personal education goals.

» Empowering student ownership: Students are empowered to make important decisions about their learning experiences and how they will apply and demonstrate their knowledge and skills on a daily basis.
<table>
<thead>
<tr>
<th><strong>TRADITIONAL EDUCATION</strong></th>
<th><strong>VS</strong></th>
<th><strong>PERSONALIZED, COMPETENCY-BASED LEARNING</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning happens inside a traditional classroom, little to no accommodation of student interests or learning needs.</td>
<td><strong>SCHOOL CULTURE</strong></td>
<td>Students have an equitable range of learning experiences at school, online and in the community. Schools foster a sense of belonging, embrace growth mindset and the importance of relationships for meaningful, relevant learning experiences.</td>
</tr>
<tr>
<td>Every classroom has one teacher who designs and delivers instructional curriculum with very little differentiation.</td>
<td><strong>INSTRUCTION</strong></td>
<td>Educators work collaboratively with community partners and students to develop a unique learning plan for each student based on interests, learning needs and real-time data. Individual learning pathways accommodate student interests and learning needs.</td>
</tr>
<tr>
<td>Assessments at set times to evaluate and classify students. One opportunity to take the summative assessment at the end of the year.</td>
<td><strong>ASSESSMENT SYSTEM</strong></td>
<td>A comprehensive assessment system is an essential part of the learning system. Formative assessments guide daily instruction. Students partner with their teachers to decide when and how to show what they’ve learned, and they have multiple chances to demonstrate mastery.</td>
</tr>
<tr>
<td>Students are expected to master grade level college- and career-ready standards.</td>
<td><strong>COLLEGE AND CAREER READINESS</strong></td>
<td>Students are expected to master competencies aligned to college- and career-ready standards with clear, transferable learning objectives.</td>
</tr>
<tr>
<td>Students advance at educator’s pace regardless of mastery or needing additional time.</td>
<td><strong>LEARNING PACE</strong></td>
<td>Students access customized supports both in-school and out-of-school to ensure they get what they need, when they need it.</td>
</tr>
<tr>
<td>Grades are norm-referenced, reflect course standards and are typically based on weighted quarters and a final exam.</td>
<td><strong>GRADING POLICIES</strong></td>
<td>Grades reflect the degree of mastery of competencies. If students do not earn course credit, records indicate competencies that need to be re-learned instead of the entire course.</td>
</tr>
</tbody>
</table>
ROLE OF THE TEACHER IN A PERSONALIZED, COMPETENCY-BASED CLASSROOM

TEACHERS ARE MORE CRITICAL THAN EVER in a personalized learning environment where relationship-building and trust form the foundation for everything that happens in the classroom. In a personalized, competency-based classroom, teachers are moving between groups of learners, facilitating discussions, helping students explore and set goals, or may be engaged in more direct instruction with a few students at a time. Their classrooms may offer flexible seating and students participate in decisions about how and where they learn. They may be working independently or grouped based on what they’re working on.

Just as the teacher supports their students to take risks and try new things without fear of failure, they’re supported in turn by district leaders who foster a collaborative school culture. Everyone is working together, every step of the way.

Because this classroom looks so different, many teachers – and students, parents, school leaders and community members – still have questions about what teaching and learning in a personalized learning environment looks like.
WHAT’S THE DIFFERENCE BETWEEN TEACHER-CENTERED AND STUDENT-CENTERED CLASSROOMS?

In a traditional, teacher-centered classroom, teachers ask questions and students answer. Teachers choose what students will be working on and when and deliver direct instruction, often to the whole class at once. Conversely, in a student-centered, personalized classroom the teacher works with students and has the resources and supports that they need to take risks and follow their students’ lead.

In a literacy lesson, for example, a teacher may work with a small group of students whose assessments show they need support in the same skill area, while other students work through learning stations with tasks designed to strengthen their learning. Students benefit from individually-paced, targeted learning tasks that start from where the student is, formatively assess existing skills and knowledge and address the student’s needs and interests.

“If you ask [my students] what they are working on in literacy they can say, ‘I’m doing syllables right now,’ or ‘I don’t need to do my letters anymore because I know them already,’” said Marie Roy, a kindergarten teacher at Henry L. Cottrell Elementary School in RSU 2 in Monmouth, Maine. “They know exactly what to expect, and where they need to be, and where they need to get their materials from so they are able to move through their targets at a pretty independent pace.”

WHAT DOES CLASSROOM MANAGEMENT LOOK LIKE IN A PERSONALIZED, COMPETENCY-BASED LEARNING ENVIRONMENT?

The idea of students choosing how they learn, how they show you what they’ve learned, working independently or grouping and regrouping throughout the day, might sound messy to teachers. But the student who feels trusted and has ownership over their learning is a more focused and productive student. Learners also have ample opportunities to practice those critical social and emotional skills that will serve them well in the future when they can recognize their own role in enriching the learning environment. Teachers are still responsible for the class, but when students build a community together, deciding on classroom rules and similar procedures, they hold themselves and each other accountable.

In an elementary classroom, students may decide as a class on an appropriate way to handle classroom materials such as markers or scissors, whereas older learners may decide on how long they have to revise an assignment. These rules still exist – but they are decided upon and enforced by the community, building student agency and ownership.

“I really wanted to be in charge of my classroom,” said Hillary Weiser, a kindergarten teacher at Navin Elementary School in the Marysville Exempted Village School District in Marysville, Ohio. “But I’ve learned to let the kids take charge of their own learning. I have no discipline issues this year, and I don’t think it’s anything I’ve done. This classroom is theirs. They take ownership of what happens here.”
DOES PERSONALIZED LEARNING MEAN TEACHERS CREATE PERSONALIZED LESSON PLANS FOR EVERY STUDENT?

Personalizing learning doesn’t mean writing 30 different lesson plans for 30 students, but rather cultivating in students an understanding of themselves as learners and turning over some of the work to the students themselves. Transparency about learning expectations is also key in a personalized, competency-based classroom – if students are aware of their learning targets and what they need to do to demonstrate mastery, learning isn’t a mystery.

In a science class, for example, a teacher may share out at the beginning of the unit the learning targets that each student will need to meet, and work with each student to design the assessment that allows them to demonstrate mastery – whether that’s writing a paper, delivering a presentation, taking a test or something else.

HOW DO TEACHERS SUPPORT EACH STUDENT’S INDIVIDUAL NEEDS?

To truly personalize learning, teachers must have the support and freedom they need to understand and support each child holistically. Whether it’s a unique family situation, a different culture than their own, poverty or trauma, teachers must have the flexibility to meet their students’ needs in creative and appropriate ways.

Many teachers use data notebooks with students as a way of involving the kids in goal setting and progress monitoring. The notebooks can also include learner profiles, where students set goals and reflect on the ways in which they learn best. “Do I learn my math facts when I am using flashcards or working with a partner?” “What do I need to do my best on this task?” Making the most of the data notebooks can also support a classroom culture that encourages growth mindset: approaching new tasks and skills as an opportunity to learn and grow rather than assuming skills are predetermined.

When personalizing learning, there is a necessary cultural and systemic shift throughout a learning community that brings inequitable practices to light and has the potential to empower teachers to take action and alleviate those inequities. This may require tough, but necessary, conversations about how to serve each child well.

“We offered afterschool sessions for those learners who needed additional help, and were naturally frustrated when the students knew we needed the support didn’t show up,” said Abbie Forbus, director of teaching and learning with KnowledgeWorks and formerly director of culture at Lindsay Unified School District in Lindsay, California. “But when we asked students, we were surprised to learn that because so many of their parents were migrant workers who had to go and work in the fields after school, these students needed to get home to care for siblings. After-school sessions were never going to work for them, so we needed to find a way to work extra time into the school day. If we'd stopped and asked our learners first what they needed, we'd have been able to work together to find the best solution from the start.”
HOW WILL ASSESSMENTS WORK? HOW WILL TEACHERS DETERMINE IF A STUDENT HAS DEMONSTRATED MASTERY?

While end-of-year summative assessments are still a reality for schools, teachers in a personalized learning environment must be comfortable with frequent, embedded student assessments that are closely aligned to instruction so that results can quickly translate into supports for students. These embedded, formative assessments also naturalize the process of assessing progress. Rather than seeming punitive, assessments become a regular touchpoint for both teachers and students to get a pulse on what they know and what they don’t know yet. After an assessment, students can also chart their own growth and set their own learning goal, determining what they will do to reach their goal and what they need their teacher to do. They own their learning.

“I get to focus on what kids really know, and what they don’t know, and what I can do to get them there,” said Brooke Young, a math teacher at Marysville Early College High School in the Marysville Exempted School District in Marysville, Ohio. She described a recent project her students undertook to demonstrate their understanding of quadratic functions, where rather than just take a test, her students chose to pursue a video project. Young recognized her students’ passion for video production and IT, and though she didn’t have the expertise herself, she provided the structure necessary for her students to plug their learning into something that was meaningful for them and still gave the opportunity to show what they’d learned. “I told them, ‘I’m going to take a risk with you.’ We dove in together,” Young said.

HOW DOES PERSONALIZED LEARNING CHANGE THE NATURE OF PROFESSIONAL DEVELOPMENT?

Rethinking annual professional development to explicitly support a teacher’s confidence and the development of strategies for personalized learning is critical. Most educators weren’t trained in personalized learning strategies but are excited at the prospect of having more freedom to meet their students where they are. Growth mindset and comfort with failure as a part of the learning process is something that teachers must cultivate in their interactions with students, and it’s made possible by feeling that same support from district leaders and administrators. Teachers need to feel that they are trusted and that if they try something new and it doesn’t work out, they can revisit and adjust.

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Get more resources to help make personalized learning a reality at KnowledgeWorks.org.
Personalized, competency-based learning centers each student’s strengths, needs and interests and provides differentiated supports and ways to demonstrate what they know and know how to do, ensuring each learner graduates ready for what’s next.

Teachers, parents, community members and students have questions about what personalized, competency-based learning will look like, and how it will impact the classroom experience and outcomes upon graduation. These answers to frequently asked questions could spark critical conversations about what personalized, competency-based learning offers your community.

The core elements of a personalized, competency-based learning environment are:

- Learner Agency
- Timely, Actionable Assessments
- Customized Learner Supports
- Progression upon Mastery
- Flexible Learning Paths
- Strategies and Systems Ensure Equity
- Rigorous Academic and Social-Emotional Learning Targets

Source: Adapted from Aurora Institute
WHY IS PERSONALIZED, COMPETENCY-BASED LEARNING IMPORTANT FOR TODAY’S STUDENTS?
The way teachers teach and students learn is already changing – and KnowledgeWorks is partnering with learning communities across the country to ensure those changes are equitable and sustainable. Personalized, competency-based learning emphasizes creating engaging educational experiences that are customized to each learner’s strengths, needs and interests. Students have voice and ownership over how, what, when and where they learn and connections to community and real-world experiences are a priority.

WHAT ROLE DOES THE TEACHER PLAY IN A PERSONALIZED, COMPETENCY-BASED CLASSROOM?
Relationships drive student learning. Teachers are essential, creating unique opportunities for learning, working with students to create classroom culture, helping students discover their learning needs and working side-by-side with learners throughout the year.

WHAT IS THE ROLE OF TECHNOLOGY IN PERSONALIZED LEARNING?
Technology enables learning – but it isn’t central to the design of how we meet students’ needs. At the center of strong, effective teaching and learning is the relationship between a student and a teacher. And technology can’t replace that. Technology is a tool that can be used to support student activities and to meet each student where they are by providing engaging instruction, just-in-time supports and key real-world learning opportunities.

WHAT IS THE ROLE OF STATE STANDARDS IN A PERSONALIZED, COMPETENCY-BASED LEARNING ENVIRONMENT?
Standards guarantee every student an equal, quality education. In states committed to scaling personalized, competency-based learning, standards are about more consistency. They’re aligned to competencies that allow students to demonstrate what they know and know how to do – ensuring high quality, meaningful learning experiences for students from all tax bases and zip codes.

HOW IS PERSONALIZED, COMPETENCY-BASED EDUCATION INTEGRATED INTO CAREER-BASED LEARNING PATHWAYS?
Students connect their learning with life beyond the classroom. Certifications through career and technical education (CTE) opportunities are great examples of how school districts can implement personalized, competency-based learning for career readiness. Students participating in certification programs, such as Certified Nursing Assistant programs or welding programs, are required to show competency in a number of areas before they are certified in their field. CTE programs build upon earlier learning in the classroom and ensure learning is relevant and transferable for students in ways that directly benefit their career trajectory.

WHAT DOES IT MEAN FOR STUDENTS TO WORK AT THEIR OWN PACE?
Students move ahead when they have demonstrated mastery of content, not when they’ve reached a point in the school year. In a personalized, competency-based learning environment, a class pace is set by the teacher based on where each student excels and requires support. Students are aware of how what they’re working on contributes to their understanding of the learning targets, and what they need to do to show what they’ve learned and at what level of rigor. There may be
some learners who work faster or a little slower, but this more student-centered approach gives the teacher greater understanding as to where each student is, and when supports are needed to advance deeper learning in ways that are empowering and motivating to each learner.

**HOW WILL A TEACHER PERSONALIZE LEARNING FOR EVERY SINGLE STUDENT?**

A learner-centered classroom doesn't mean 25-30 individual lesson plans for each student. It’s about developing a student’s agency so they have a voice in their education, choices in how they learn and present that knowledge to others and engagement opportunities to access content in the best way for them. The school day includes instructional time with the teacher and opportunities to work independently, in pairs or with other students. Because their learning targets are transparent, students work with the teacher to determine what they need to accomplish to meet them and how they could show evidence of learning. Learning isn’t a mystery, and students have a greater understanding of what they need to learn and why.

**ARE STUDENTS TRACKED IN A PERSONALIZED, COMPETENCY-BASED LEARNING ENVIRONMENT?**

Tracking – the widespread practice of labeling, ranking, sorting and separating students by perceived academic ability and behavioral compliance – limits what learners have access to and can achieve. Once tracked, students typically receive very different expectations, messages, learning conditions, peer cohorts, teachers, pedagogies, curricula and opportunities. And over time, those differences open more and more doors for some while slamming them shut for others.

But in a personalized, competency-based learning environment, students learn actively using different pathways and varied pacing that does not result in tracking or other forms of ability grouping. Each of the core elements of personalized, competency-based education – engaging experiences, a focus on the learner’s individual needs and assets, student agency and autonomy, connections to real-world experiences and preparation – have a substantial body of research and evidence supporting their efficacy in closing opportunity gaps and producing more equitable outcomes.

**WHAT DOES A TRANSCRIPT FROM A PERSONALIZED, COMPETENCY-BASED EDUCATION ENVIRONMENT LOOK LIKE?**

In a personalized, competency-based system, there are clearly defined expectations for what mastery looks like for each learning target. This helps to ensure that all students are held to the same high standard and given the support they need to succeed at the highest levels. You can see an example of what a transcript looks like on the following pages, courtesy of the Mastery Transcript Consortium, who partners with a growing network of public and private schools to co-design a digital high school transcript that opens up opportunity for each and every student – from all backgrounds, locations and types of schools – to have their unique strengths, abilities, interests and histories fostered, understood and celebrated.

KnowledgeWorks is a national nonprofit organization advancing a future of learning that ensures each student graduates ready for what’s next. For more than 20 years, we’ve been partnering with states, communities and leaders across the country to imagine, build and sustain vibrant learning communities. Through evidence-based practices and a commitment to equitable outcomes, we’re creating the future of learning, together.

Get more resources to help make personalized learning a reality at [KnowledgeWorks.org](http://KnowledgeWorks.org).
EXAMPLE COMPETENCY-BASED TRANSCRIPT

Tou Pointoh
ID: 1
DOB: 04/01/2002
Graduation: 06/05/2020
Address: 1 Main St., Burlington, VT, 05401
School: MTC-10 (sample)
Published: 06/13/2022

Student Statement
“Tou believes in the principle of choosing one’s own path. Driven by the notion of making the world a better place, Tou’s strengths lie within the places he can help others succeed and realize their importance.”

Credit Profile

Tou’s Foundational Credit Distribution
40 completed | 1 in progress

Communication and Collaboration

Foundational Credits (FCs)

Advanced credits (ACs)

All Required FCs

All Available ACs

Tou’s Credit List

Advanced Credit
Credit In progress
Includes evidence

Tou’s Credit Summary

FOUNDATIONAL CREDITS
40 completed
1 in progress

ADVANCED CREDITS
14 completed
3 in progress

Interpreting MTC-10 (sample) Credit Profiles

34 Max achievable (AC)
40 Max achievable (FC)
10 # of ACs earned by most graduates
20 # of ACs earned that is high and exceptionally rare

Applied Analytical and Critical Thinking

Problem Solving
Evaluating Evidence
Ideation
Iteration
Reasoning
Statistical Reasoning
Information Literacy
Advanced Statistical Reasoning
Authentic Contribution
Transfer
Compelling Curiosity

Also available
Problem Finding and Solution Seeking
Applied Mental Models
Agile Thinking

Communication and Collaboration

Responsible Contribution
Academic Conversations
Articulation in Writing
Creative and Formal Written Expressions
Literature Analysis
Negotiation
Fostering Collaborative Team Environment
Deep Listening
Persuasion
Public Speaking

Also available
Impact Through Digital Media
Advanced Topics in Research
Advanced Topics in Written Expression
Original Expression

To see how a competency-based transcript functions, download these images or contact MTC for an interactive version.
Tou's Credit List

- Advanced Credit
  - Credit In progress
    - Includes evidence

Tou's Credit Summary

- FOUNDATIONAL CREDITS
  - 40 completed
  - 1 in progress

- ADVANCED CREDITS
  - 14 completed
  - 3 in progress

Interpreting MTC-10 (sample) Credit Profiles

- 34 Max achievable (AC)
- 40 Max achievable (FC)
- 10 # of ACs earned by most graduates
- 20 # of ACs earned that is high and exceptionally rare

Self Directed Learner

- Academic & Intrapersonal Reflection
- Self-Advocacy
- Integrity & Responsible Decision Making
- Resourcefulness
- Goal Setting
- Resilience
- Growth Mindset
- Process Engagement
- Self-Determination
- Also available
  - Interpersonal Reflection
  - Advanced Self-Advocacy
  - Perseverance
  - Post-HS Readiness

Adaptive Learning

- Historical Reasoning
- Mathematical Reasoning
- Scientific Reasoning & Process
- Science of Learning
- Data Interpretation
- Scientific Process
- Bilingualism
- Advanced Scientific Investigation
- Also available
  - Advanced Mathematical Reasoning
  - Applying Computer Science
  - Athletics
  - Advanced Literary Analysis

Leadership, Civic Engagement, and Social Influence

- Global Citizenship
- Digital Citizenship
- Historical Connections
- Geographical Analysis
- Project Leadership
- Community Engagement
- Exploring Perspectives
- Global Interdependence
- Ethical and Moral Integrity
- Leadership Collaboration
- Emergent Leadership
- Also available
  - Student Designed Project
  - Conflict Mediation
  - Positive Influence and Mobilization
  - Environmental Sensitivity
  - Managing Complex Systems

Creativity and Innovation

- Creativity From Synthesis
- Creativity From Transfer
- Original Expression
- Entrepreneurship
- Apprenticeship
- Public Exhibition of Work
- Public Exhibition Design
- Divergent/Lateral Thinking
- Advanced Original Expression
- Also available
  - Applied Social Innovation or Entrepreneurship
  - Applied Project Design
  - Advanced Apprenticeship

To see how a competency-based transcript functions, download these images or contact MTC for an interactive version.
**Tou’s Completed Courses**

This student must meet all school—and state—required—diploma requirements before graduation.

- Indicates one or more evidence records mention this course

There is not a one-to-one relationship between mastery credits and courses. Students gather the evidence needed to earn each mastery credit from a combination of course, extracurricular, and flexible pathway learning. While many mastery credits draw heavily on specific discipline-based learning, other credits can be earned with evidence from a wider variety of experiences.

### 2019 - 2020

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### 2017 - 2018

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<tr>
<td>College Prep Biology</td>
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<td>French 2</td>
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<td>Journalism</td>
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</tr>
<tr>
<td>Modern World History 1+</td>
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</tr>
<tr>
<td>Modern World Literature 1</td>
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<td>PACE</td>
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### 2016 - 2017

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Health 1+</td>
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<tr>
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<tr>
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<tr>
<td>Geometry Accelerated</td>
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<tr>
<td>Graphic Design</td>
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</tr>
<tr>
<td>Humanities History 1+</td>
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</table>

To see how a competency-based transcript functions, download these images or contact MTC for an interactive version.
## SCORING LEGEND:

1.0  
With help, demonstrates foundational skills and knowledge.

1.5  
With help, demonstrates foundational skills and knowledge of 2.0, and has evidence of 3.0.

2.0  
Proficient at the foundational level.

2.5  
Proficient at the foundational level, and has evidence for the complex skills and knowledge of 3.0.

3.0  
Proficient at the complex level.

3.5  
Proficient at the complex level and has evidence for using skills and knowledge in a new, rigorous level.

4.0  
Proficient at the complex level and demonstrates using skills and knowledge in a new, rigorous level.

### ELA MEASUREMENT TOPICS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Acquisition: Use of Language</td>
<td>3.5</td>
</tr>
<tr>
<td>Language Conventions: Sentence Structure</td>
<td>3.5</td>
</tr>
<tr>
<td>Reading: Informational: Craft and Structure: Author’s Purpose</td>
<td>3.0</td>
</tr>
<tr>
<td>Reading: Literature: Craft and Structure: Plot</td>
<td>3.0</td>
</tr>
<tr>
<td>Reading: Literature: Craft and Structure: Point of View</td>
<td>3.5</td>
</tr>
<tr>
<td>Reading: Literature: Key Ideas and Details: Characters</td>
<td>3.0</td>
</tr>
<tr>
<td>Reading: Literature: Key Ideas and Details: Theme</td>
<td>3.5</td>
</tr>
<tr>
<td>Writing: Research: Research Process</td>
<td>3.0</td>
</tr>
<tr>
<td>Writing: Types and Purpose: Informative/Explanatory</td>
<td>3.5</td>
</tr>
<tr>
<td>Writing: Types and Purpose: Narratives</td>
<td>3.5</td>
</tr>
<tr>
<td>Writing: Types and Purpose: Opinion/Argument</td>
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**Total:** 3.36

### SCIENCE MEASUREMENT TOPICS

<table>
<thead>
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<th>Topic</th>
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<tbody>
<tr>
<td>Earth and Space: Atmosphere and Weather</td>
<td>4.0</td>
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<tr>
<td>Earth Science: Composition and Structure of the Earth</td>
<td>3.5</td>
</tr>
<tr>
<td>Ecology: Community Ecology</td>
<td>3.0</td>
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<tr>
<td>Ecology: Ecosystems</td>
<td>4.0</td>
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<tr>
<td>Ecology: Population Ecology</td>
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<tr>
<td>Energy: Waves</td>
<td>3.0</td>
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<tr>
<td>Life Science: Biodiversity and Evolution</td>
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<tr>
<td>Life Science: Cells and Organisms</td>
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<tr>
<td>Life Science: Heredity and Reproduction</td>
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<tr>
<td>Life Science: Human Body</td>
<td>3.5</td>
</tr>
<tr>
<td>Physical Science: Electricity and Magnetism</td>
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<tr>
<td>Physical Science: Forces and Motion</td>
<td>3.5</td>
</tr>
<tr>
<td>Physical Science: Matter</td>
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**Total:** 3.57

### MATHEMATICS MEASUREMENT TOPICS

<table>
<thead>
<tr>
<th>Topic</th>
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<tbody>
<tr>
<td>Algebra: Expressions, Equations and Inequalities</td>
<td>4.0</td>
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<tr>
<td>Applications of Graphs</td>
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<tr>
<td>Conic Sections</td>
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<tr>
<td>Derivatives</td>
<td>3.5</td>
</tr>
<tr>
<td>Exponential and Logarithmic Functions</td>
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</tr>
<tr>
<td>Functions, Graphs, Limits</td>
<td>3.5</td>
</tr>
<tr>
<td>Geometry: Coordinate Systems</td>
<td>4.0</td>
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<tr>
<td>Inference</td>
<td>3.5</td>
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<tr>
<td>Integrals</td>
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<tr>
<td>Sequences and Series</td>
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**Total:** 3.75

### SOCIAL STUDIES MEASUREMENT TOPICS

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<th>Topic</th>
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<tbody>
<tr>
<td>Economics: Personal Economics</td>
<td>3.5</td>
</tr>
<tr>
<td>Geography: World Geography</td>
<td>3.0</td>
</tr>
<tr>
<td>Government &amp; Civics: Citizenship</td>
<td>3.5</td>
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<tr>
<td>Government &amp; Civics: US Constitution</td>
<td>3.5</td>
</tr>
<tr>
<td>History: Comparative Government</td>
<td>3.5</td>
</tr>
<tr>
<td>History: Transformation &amp; Revolution</td>
<td>3.0</td>
</tr>
<tr>
<td>History: War &amp; Diplomacy</td>
<td>3.0</td>
</tr>
<tr>
<td>US Domestic Policy</td>
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<tr>
<td>US Foreign Policy</td>
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**Total:** 3.28

### ART MEASUREMENT TOPICS

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<th>Topic</th>
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<tbody>
<tr>
<td>Connecting: Deepening Understanding</td>
<td>4.0</td>
</tr>
<tr>
<td>Creation: Investigate, Plan, Make: Personal Relevance</td>
<td>4.0</td>
</tr>
<tr>
<td>Presenting: Considerations</td>
<td>4.0</td>
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<tr>
<td>Responding: Criticism</td>
<td>3.5</td>
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**Total:** 3.88

### PHYSICAL EDUCATION MEASUREMENT TOPICS

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<th>Topic</th>
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<tbody>
<tr>
<td>Movement/Motor Skills and Knowledge: Motor Skills</td>
<td>3.5</td>
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<tr>
<td>Personal and Social Skills and Knowledge</td>
<td>3.5</td>
</tr>
<tr>
<td>Cooperative Skills and Responsible Behavior</td>
<td>4.0</td>
</tr>
<tr>
<td>Personal Fitness</td>
<td>3.0</td>
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<tr>
<td>Physical Fitness Activities/Knowledge:</td>
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<tr>
<td>Health Related Fitness</td>
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**Total:** 3.40
WHAT ROLE DOES TECHNOLOGY PLAY IN A PERSONALIZED LEARNING ENVIRONMENT? Can you personalize learning without technology? Yes, absolutely. But just as technology plays an increasingly important role in all of our lives – from using the GPS in our phones, to electronic medical records to being able to order groceries online – it plays a role in teaching and learning. Technology is a tool; it is not the primary driver of personalized learning.

At the center of strong, effective teaching and learning is the relationship between a student and a teacher. And technology can’t replace that.

*Personalized learning is driven by good teaching and strong student supports centered on the needs of each student.*

Technology is additive. Whether it’s a specific device like a tablet or laptop, or a program, app or platform like a learning management system or an online class, technology should support great teaching and learning.

Simply having access to a device is not personalized learning. Teachers are the guides that shape educational experiences for their students, helping them engage with learning tools that will enrich and support deeper learning, including different types of technology.
Personalized learning means meeting each student at their own level, challenging them with high expectations for academic achievement and growing student agency through:

» Instruction aligned to rigorous academic standards and integrated social-emotional skills students need to be ready for college, career and life

» Customized instruction and supports that allow each student to design learning experiences aligned to his or her interests

» Varied pacing of instruction based on individual student needs, allowing students to accelerate, go deeper or take additional time based on their level of mastery.

» Real-time differentiation of instruction, supports and interventions based on data from formative assessments and student feedback to ensure every student is making adequate progress towards graduation and career aspirations

» Access to clear, transferable learning objectives and assessment results so students and families understand what is expected for mastery and advancement

Technology is a tool that can be used to support student activities and to meet each student where they are by providing engaging instruction, just-in-time supports and key real-world learning opportunities

**TECHNOLOGY DOESN’T REPLACE TEACHING.**
It’s a powerful tool for experiential, interdisciplinary learning, formative assessments and reviewing student data. Technology can deepen the education experience for learners and teachers in a personalized setting, but only when it is used thoughtfully and intentionally.

KnowledgeWorks is a nonprofit organization dedicated to advancing personalized learning that empowers every child to take ownership of their success. With nearly 20 years of experience exploring the future of learning, growing educator impact and working with state and federal policymakers, our passionate team partners with schools and communities to grow a system-wide approach to sustain student-centered practices so that every child graduates ready for what’s next.

Get more resources to help make personalized learning a reality at KnowledgeWorks.org.
WHAT DOES PERSONALIZED LEARNING MEAN FOR ME?

How is the experience of learning within personalized learning environments different from traditional education? What changes for teachers or parents? We asked people within our learning communities to find out.

WHAT DOES PERSONALIZED LEARNING MEAN FOR STUDENTS?

Randle Green, a senior at Kenowa Hills High School, appreciates the opportunities personalized learning has allowed him to pursue – and the emphasis it places on his relationships with his teachers by breaking down the barriers that might keep him from asking questions or operating on a different page from his instructors.

“As a human, as a person, you don’t know exactly what you’re going to be good at,” said Green. “You’re continually growing. You’re not in class eight hours a day by yourself. You’re working with your teacher, like a partner.”

Personalized, competency-based education can work for students of all ages. When implemented, even children as young as five years old know what they need to learn and how to work independently.

“Most of my kids know pretty much where they stand,” said kindergarten teacher Marie Roy. “If you ask them what they are working on in literacy they can say, ‘I’m doing syllables right now,’ or ‘I don’t need to do my letters anymore because I know them already.’”

KnowledgeWorks.org
This is how one of her students, Grace Mills, explained her schoolwork. “So me and my friend Quinn are in this group and the ‘Ds’ are in this group,” Mills stated as she pointed to different sides of a folder from a literacy station in her classroom. “And those are the papers that we are working on.”

**WHAT DOES PERSONALIZED LEARNING MEAN FOR PARENTS?**
Jessica McClurg’s son is a senior at TRI Academy in Marysville, Ohio, and he’s considering college for the first time. According to McClurg, it used to be a fight to get him to go to school every day – but TRI Academy’s focus on cultivating student’s sense of ownership over their learning and hope for their futures is an essential part of their push to provide a meaningful, personalized experience for every student.

“Whatever a student is interested in, the teachers try their best to incorporate that so students can get their credits and graduate,” said McClurg. “The teachers at TRI Academy have been so encouraging; they’ve done wonders for boosting his confidence.”

While a personalized, competency-based learning environment might not look like the school parents remember, every parent wants their child’s needs to be recognized and met and their strengths to be celebrated. Personalized learning provides opportunities for educators to tailor instruction to ensure every student realizes their fullest potential, graduating not only with the content knowledge they need, but also the social and emotional skills that will allow them to thrive in a world that is rapidly changing. Transparent communication and practices means parents can be confident in what their children know and know how to do.

**WHAT DOES PERSONALIZED LEARNING MEAN FOR TEACHERS?**
In a traditional classroom, students might demonstrate mastery of a concept by taking a test. Or maybe the whole class writes reports. Perhaps the teacher assigns a public speaking exercise. Any one of those exercises surely demonstrates mastery by some students, while potentially leaving out others. In a personalized learning environment, each individual student can work with their instructors to develop ways to demonstrate mastery in ways that make sense for them. Gone are the days of one-size-fits-all assessments that work for few.

Ashley Howard works at Navin Elementary School in the Marysville Exempted Village School District in Marysville, Ohio, and has been working with second graders on how they show mastery of non-fiction text features. The ways students chose to demonstrate mastery ranged from creating posters to writing and playing songs.