WHAT IS PERSONALIZED 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.

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 social-emotional skills students need to be ready for college, career and life

» Customized instruction that allows 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 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 remains on track to graduation

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

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Get more resources to help make personalized learning a reality at KnowledgeWorks.org.
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:

» Students move on to the next assignment or standard once they have shown that they have mastered the previous one.

» Competencies include explicit, measurable, transferable learning objectives designed to help students see how what they are learning now fits into their overall education and future aspirations. These learning objectives then empower students to understand why they are learning what they are learning and are applicable to what they learn in the future.

» Assessments are meaningful for students and teachers. They create a positive learning experience for students, help them understand how they can grow in their learning, and give them an opportunity to demonstrate mastery of knowledge and skills in a variety of assessment formats.

» Students receive timely, customized support from teachers based on their individual learning needs and strengths.
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:

» Equal opportunity: All students are challenged to master rigorous, transparent learning targets, with flexibility for how they demonstrate what they learn, based on their strengths and interests.

» 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.

» 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>SCHOOL CULTURE</th>
<th>TRADITIONAL EDUCATION</th>
<th>VS</th>
<th>PERSONALIZED LEARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Learning happens inside a traditional classroom, little to no accommodation of student interests or learning styles.</td>
<td></td>
<td>Students have a range of learning experiences at school, online, and in the community. Diverse partners create individual learning pathways to accommodate student interests and learning styles.</td>
</tr>
<tr>
<td></td>
<td>Every classroom has one teacher who designs and delivers instructional program with very little differentiation.</td>
<td></td>
<td>Educators work collaboratively with community partners and students to develop a unique learning plan for every student based on interests, learning styles, and real-time data.</td>
</tr>
<tr>
<td></td>
<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></td>
<td>A comprehensive assessment system is an essential part of the learning system. Formative assessments guide daily instruction. Summative assessments show mastery; taken when ready and multiple chances to demonstrate mastery.</td>
</tr>
<tr>
<td></td>
<td>Grades are norm-referenced, reflect course standards, are typically based on weighted quarters and a final exam.</td>
<td></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>

<table>
<thead>
<tr>
<th>LEARNING CONTINUUM</th>
<th>TRADITIONAL EDUCATION</th>
<th>VS</th>
<th>COMPETENCY-BASED LEARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Students are expected to master grade level college and career ready standards.</td>
<td></td>
<td>Students are expected to master competencies aligned to college and career ready standards with clear, transferable learning objectives.</td>
</tr>
<tr>
<td></td>
<td>Students advance at educator’s pace regardless of mastery or needing additional time.</td>
<td></td>
<td>Students receive customized supports both in-school and out-of-school to ensure they stay on pace to graduate college and career ready.</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.
At KnowledgeWorks, our approach to personalized, competency-based 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. It’s what good teaching and learning has always looked like.

Here are answers to frequently asked questions, which highlight questions voiced most by all stakeholders, including teachers, parents, community members and students—and we’ve paired them with responses that could spark critical conversations about what personalized, competency-based education offers your learning community.

WHY IS PERSONALIZED, COMPETENCY-BASED LEARNING IMPORTANT FOR TODAY’S STUDENTS?
The world has changed, and this changes what students need from their education, and by necessity, how education is delivered. Personalized learning has tremendous potential to address the country’s challenge to achieve equitable educational outcomes for all students. The approach’s emphasis on targeted supports for every student, and attention to individual interests and academic and cultural needs, underscores the importance of closing achievement gaps between students and their peers.
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 styles and working side-by-side with learners throughout the year.

WHAT IS THE ROLE OF TECHNOLOGY IN PERSONALIZED LEARNING?
Technology can be a great tool for learning, but it’s not the only one. Some students may prefer project-based work or a computer program, while others prefer pencil and paper. Personalized, competency-based education provides students with the opportunity to learn how they learn best and to demonstrate learning in a variety of ways, rather than just taking a test or writing a paper.

WHAT IS THE ROLE OF STATE STANDARDS IN
A PERSONALIZED, COMPETENCY-BASED LEARNING ENVIRONMENT?
Standards guarantee every student an equal, quality education. It doesn’t matter what the standards are called or who created them. Be it Texas, Maine or Alaska, what is more important is that the state has chosen to use high-quality state-wide standards to ensure consistency in learning among all districts, no matter the tax-base or zip code, ensuring students in low-income and high-income districts are guaranteed a high-quality education.

IS PERSONALIZED, COMPETENCY-BASED EDUCATION A WORKFORCE MODEL?
Many of today’s students will enter the workforce and fill jobs that have yet to be created. Through personalized, competency-based education, students master core academic content and demonstrate what they’re learning while also developing the social-emotional skills necessary to succeed. Skills like critical thinking, self-awareness and the ability to collaborate will help them no matter what path they choose after high school.

HOW DOES PERSONALIZED, COMPETENCY-BASED EDUCATION EXIST
WITHIN CAREER-READINESS OPPORTUNITIES?
Certifications through career and technical education (CTE) are a great example of how school districts can implement personalized, competency-based learning opportunities 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. These CTE programs provide opportunities for students to connect their learning with life beyond the classroom, and they make sure learning is relevant and transferable for students in ways that directly benefit their career trajectory.

WHAT DOES IT MEAN FOR STUDENTS TO ADVANCE UPON MASTERY?
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.

WHAT DOES A REPORT CARD 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.
## HIGH SCHOOL SAMPLE COMPETENCY-BASED TRANSCRIPT

### OFFICIAL TRANSCRIPT
Name of High School
123 Education St.
City, ST 00000
000-123-4567
website.k12.org

Student: Firstname Lastname
Date of Birth: 00/00/00
Date of Enrollment: 00/00/00
Date of Graduation: 00/00/00
Learning Pathway: Art

### CONTENT AREAS:
ELA, Mathematics, Art, Science, Social Studies, Physical Education

### CORE SOCIAL-EMOTIONAL SKILLS/GUIDING PRINCIPLES:
- **Self Discovery:** Deep Self-Knowledge
- **Individual Awareness:** Emotional Regulation
- **Social Awareness:** Empathy and Perspective-Taking

### Grades

<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
<th>Student Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA</td>
<td>3.36</td>
<td>3.54</td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
<td>3.75</td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td>3.88</td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td>3.57</td>
</tr>
<tr>
<td>Social Studies</td>
<td></td>
<td>3.28</td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
<td>3.40</td>
</tr>
</tbody>
</table>

### Overall
- **Graduation:** 3.0
- **Honors:** 3.5
- **High Honors:** 4.0
- **Overall:** 3.54

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4 Answers to Frequently Asked Questions About Personalized, Competency-Based Learning
### HIGH SCHOOL SAMPLE COMPETENCY-BASED TRANSCRIPT

**Name of High School**

123 Education St.

City, ST 00000

000-123-4567

website.k12.org

**Student:** Firstname Lastname

**Date of Birth:** 00/00/00

**Date of Enrollment:** 00/00/00

**Date of Graduation:** 00/00/00

**Learning Pathway:** Art

#### ELA MEASUREMENT TOPICS

<table>
<thead>
<tr>
<th>Language Acquisition: Use of Language</th>
<th>3.5</th>
</tr>
</thead>
<tbody>
<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>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total for ELA:** 3.36

#### SCIENCE MEASUREMENT TOPICS

| Earth and Space: Atmosphere and Weather | 4.0 |
| Earth Science: Composition and Structure of the Earth | 3.5 |
| Ecology: Community Ecology | 3.0 |
| Ecology: Ecosystems | 4.0 |
| Ecology: Population Ecology | 4.0 |
| Energy: Waves | 3.0 |
| Life Science: Biodiversity and Evolution | 3.5 |
| Life Science: Cells and Organisms | 3.0 |
| Life Science: Heredity and Reproduction | 3.5 |
| Life Science: Human Body | 3.5 |
| Physical Science: Electricity and Magnetism | 4.0 |
| Physical Science: Forces and Motion | 3.5 |
| Physical Science: Matter | 4.0 |

**Total for Science:** 3.57

#### MATHEMATICS MEASUREMENT TOPICS

| Algebra: Expressions, Equations and Inequalities | 4.0 |
| Applications of Graphs | 4.0 |
| Conic Sections | 3.5 |
| Derivatives | 3.5 |
| Exponential and Logarithmic Functions | 4.0 |
| Functions, Graphs, Limits | 3.5 |
| Geometry: Coordinate Systems | 4.0 |
| Inference | 3.5 |
| Integrals | 3.5 |
| Sequences and Series | 4.0 |

**Total for Mathematics:** 3.75

#### SOCIAL STUDIES MEASUREMENT TOPICS

| Economics: Personal Economics | 3.5 |
| Geography: World Geography | 3.0 |
| Government & Civics: Citizenship | 3.5 |
| Government & Civics: US Constitution | 3.5 |
| History: Comparative Government | 3.5 |
| History: Transformation & Revolution | 3.0 |
| History: War & Diplomacy | 3.0 |
| US Domestic Policy | 3.0 |
| US Foreign Policy | 3.5 |

**Total for Social Studies:** 3.28

#### ART MEASUREMENT TOPICS

| Connecting: Deepening Understanding | 4.0 |
| Creation: Investigate, Plan, Make: Personal Relevance | 4.0 |
| Presenting: Considerations | 4.0 |
| Responding: Criticism | 3.5 |

**Total for Art:** 3.88

#### PHYSICAL EDUCATION MEASUREMENT TOPICS

| Movement/Motor Skills and Knowledge: Motor Skills | 3.5 |
| Personal and Social Skills and Knowledge | 3.5 |
| Cooperative Skills and Responsible Behavior | 4.0 |
| Personal Fitness | 3.0 |
| Physical Fitness Activities/Knowledge: Health Related Fitness | 3.0 |

**Total for Physical Education:** 3.40

---

**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

---

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Answers to Frequently Asked Questions About Personalized, Competency-Based Learning
TECHNOLOGY AND PERSONALIZED LEARNING

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.’”
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.

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