

Feature 5: Student-Centered Pedagogy

“We talk about strengths and challenges: ‘Every student has those. What are those for you?’ [Students] get so used to everybody needing something different to be successful that it doesn’t necessarily faze them.”

—Teacher from Gateway Public Schools⁸⁸

What Students Need

Just as an effective secondary school curriculum must take into account the needs and interests of students themselves, so too the pedagogy—how the curriculum is taught—must be personalized and student-centered. The factory-model school assumes that all students learn in the same way, and if they do not, then they ought to be separated into different classrooms or tracks to be taught different material, which usually results in marginalized students receiving a lower-quality curriculum from less experienced teachers without a greater benefit to students with stronger academic skills.⁸⁹

Student-centered pedagogy begins with structures that allow teachers to know students and their learning strategies well; takes place in a safe, inclusive school and classroom culture; values students’ identities and cultures; and enacts an authentic curriculum that is meaningful to students. All of these elements help create the essential conditions for a young person to learn. A student-centered pedagogy goes one step further and recognizes that each student is a unique individual who learns in their own way and who needs individualized support to meet their full potential.

Key Practices

Multiple Pathways to Learning

The more we know about how people learn, the more we understand that teaching must account for individual differences. While there are some common aspects of the developmental process, every human brain is different and develops in its own way.⁹⁰ Students have different pathways and approaches to learning that enable them to process information and to make sense of their experiences. One out of every eight American children is identified as having “learning disabilities”—not because huge numbers of our young people are unable to function, but because they, like many other students who are not so labeled, have distinct learning needs.⁹¹ We now understand that the traditional classroom, with a teacher in the front of the room lecturing to rows of students, is ineffective if it is the only pathway to learning. Successful schools adjust their teaching modes to meet students where they are.

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Psychologist Robert Glaser calls this kind of teaching an adaptive pedagogy. He argues that 21st-century schools must shift from a selective mode—“characterized by minimal variation in the conditions for learning” in which “a narrow range of instructional options and a limited number of ways to succeed are available”—to an adaptive mode in which “the educational environment can provide for a range of opportunities for success. Modes of teaching are adjusted to individuals—their backgrounds, talents, interests, and the nature of past performance.”⁹²

Universal Design for Learning

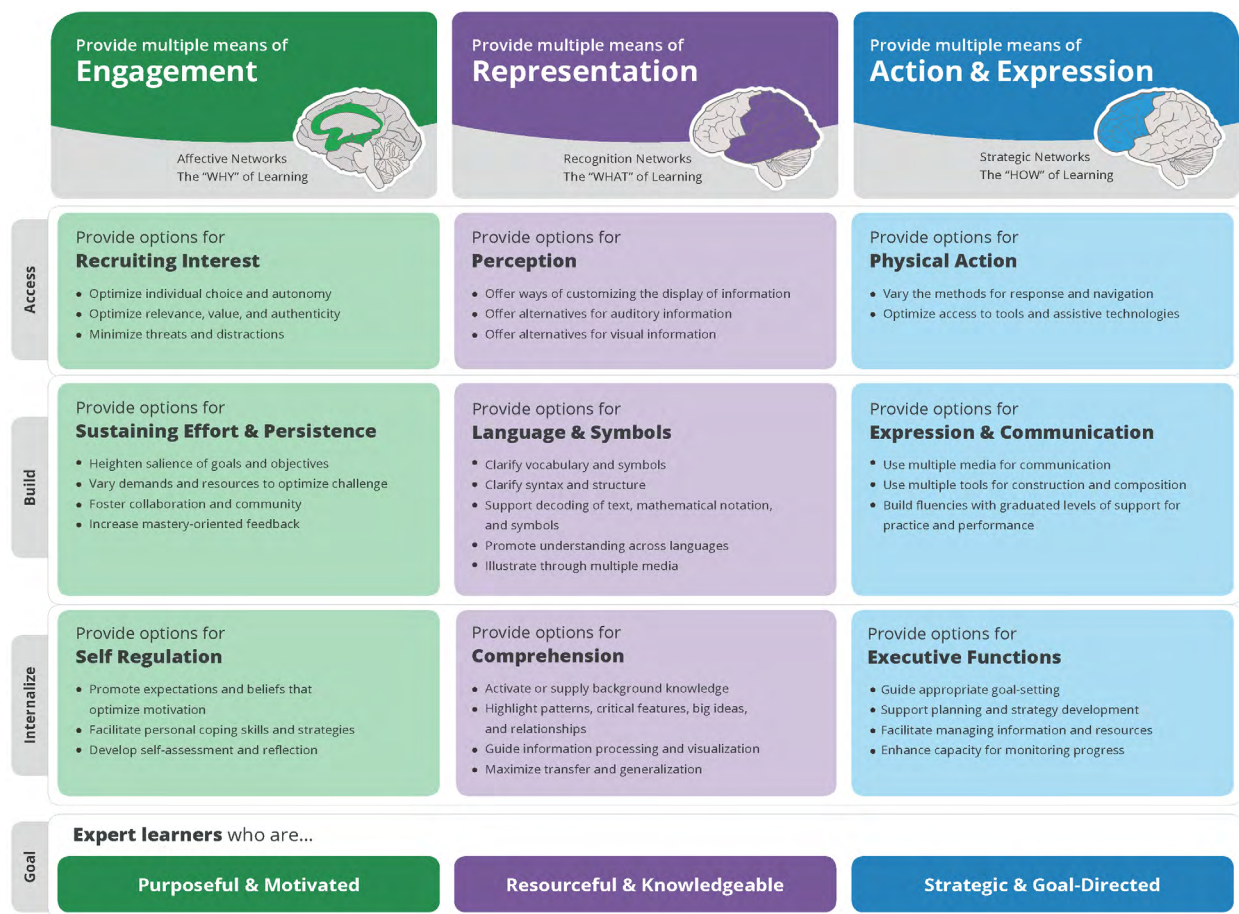
Universal Design for Learning (UDL) is a framework for designing pedagogy based on this scientific understanding of how people learn. (See [Figure 6](#).) To create a learning environment in which all students can access meaningful learning, teachers start by considering different modes of engagement. How will the teacher motivate student interest, sustain student engagement, and facilitate productive strategies and self-assessment that enable self-regulation? What are the options that will support students to engage? Then teachers can offer multiple paths of representation, so students can understand new information, improve their language skills, and construct meaning and generate new understandings. And finally, teachers provide a range of opportunities for student action and expression, including physical actions using tools and different response methods; communication options; and supports for executive functions such as goal setting, planning, information processing, and monitoring progress. In each of these areas, teachers must offer multiple means for students to engage so that young people with different backgrounds, experiences, and histories with school can all access the curriculum.⁹³

In the classroom, these approaches offer **multiple instructional strategies** that support active learning and give students different entry points to learning, allowing them to use what psychologist Howard Gardner calls their “multiple intelligences.”⁹⁴ Teachers use diverse strategies ranging from whole class lecture and recitation to guided inquiry, small group work, discussions, independent work, projects, experiments, book and internet research, constructions of models and products, use of technology, and the arts for accessing and expressing ideas. This gives students multiple ways to hook into the content and understand the concepts being taught.

Teachers also use **multiple representations of ideas** that are visual, auditory, and kinesthetic; identify leveled texts and e-books that can adjust fonts and input modalities; and allow students to express their ideas in a variety of ways. These and other approaches allow greater access for students with identified learning differences and for English learners in mainstream classroom settings, and they also help all students learn more effectively.

In a student-centered pedagogy, teachers not only use multiple approaches, but they also help students understand which learning approaches work best for them. When students develop metacognition, or an understanding of their own thought processes and how their brain best operates, they can take ownership of their own learning, making adjustments and advocating for what they need to succeed. A teacher with Gateway Public Schools in San Francisco—a school initially launched for students identified with disabilities—explains, “We talk about strengths and challenges. ‘Every student has those, what are those for you?’” Then, she says, students “get so used to everybody needing something different to be successful that it doesn’t necessarily faze them.”⁹⁵

Figure 6. Universal Design for Learning Framework



Source: CAST. (2018). *Universal Design for Learning guidelines version 2.2* [Graphic organizer].

Additional Classroom Supports

Traditional secondary schools often assume that the only way to support students with different needs or skill levels is to separate them into different tracks. Unlike grouping for instruction that occurs for specific purposes and changes as needed, tracking predetermines learning opportunities for many years, including students' options after high school. It is very difficult to create an identity-safe, inclusive school climate when the course schedule itself separates students into "higher" and "lower" achievers. Students in lower tracks understand these nuances and get the message quite clearly that they are not expected to achieve at high levels. Effective schools ensure that as many courses as possible have a heterogeneous mix of students and provide rigorous coursework to everyone, along with extra support for students who need it.

Intentionally inclusive schools like [Bronxdale High School](#)⁹⁶ in New York City and [Gateway Public Schools](#)⁹⁷ illustrate how to provide access to a rigorous project-based curriculum to a wide range of students of varying initial achievement levels, including those with identified learning disabilities, without segregation or tracking. In addition to the strategies previously identified, they often use **coteaching**, where there are two teachers in inclusion classrooms, one trained in special education, to plan curriculum jointly and support the wide-ranging needs of learners.

The Internationals Network for Public Schools⁹⁸ illustrates how to provide in-class supports for English learners at the secondary level. This group of 27 schools serves newcomers who have not yet learned English in rigorous college preparatory pathways by integrating language development into every content-area course, so students engage with academics while learning English and also maintaining and developing their native language skills. Multilingualism is viewed as an asset rather than a barrier to engaging with challenging curriculum. Teachers in Internationals schools plan together and use many of the curricular and instructional strategies described in this publication: project-based curriculum rooted in collaboration and multiple forms of engagement, representation, and expression (including the use of tools like Google Translate). They accomplish this with specialized teaching in the core classroom, rather than in a tracking system that reduces access to challenging content. Their work has shown that when adolescent English learner students are supported effectively, they do well in high school and are well prepared for college and careers. (See “[In Practice: Project-Based Learning](#)” in [Feature 4: Deeper Learning Curriculum](#).)

Supports Beyond the Classroom

High-Quality, High-Intensity Tutoring. One of the most useful and equity-enhancing interventions on top of good teaching is high-quality, high-intensity tutoring. Studies have shown that when done well, high-intensity tutoring can produce significant gains in student skill level, catching students up and allowing them to move ahead in a matter of weeks rather than years.⁹⁹ Effective tutoring cannot be accomplished by a rotating group of untrained volunteers, or by infrequent or inconsistent sessions. Effective tutors can include credentialed teachers, paraprofessionals, or knowledgeable volunteers who have received significant training. Studies suggest that effective programs organize tutors to work with students at least three times per week for 30 minutes or more, in groups of five or fewer.¹⁰⁰ When tutoring is aligned with what is happening in the classroom, students can apply their new skills and experience success that builds on itself.

Successful secondary schools often make time for tutoring opportunities in extra “lab” or support periods available to all students—sometimes attached to specific courses, such as Algebra or Physics, and sometimes as part of a resource room open regularly to all. They may also arrange for after-school tutoring or support time, Saturday school options, or online tutoring options from trained volunteers, teachers, paraprofessionals, or more advanced students.

Blended Learning. As difficult as the COVID-19 pandemic was for students, families, and educators, it had a silver lining: Public schools dramatically increased their capacity in terms of technology and online learning. For decades, these tools have been used effectively in conjunction with quality in-person instruction to provide some students with more robust learning opportunities that are tailored to their needs. Now it is clear that these opportunities must be available to all. Blended learning, or hybrid learning, refers to models where classroom learning is supplemented by asynchronous online course components that give students control over the pace and direction of their own learning. At the high school level, a simple example is moving teacher lectures to videos that students can watch on their own time and at their own pace, allowing class time to be used for

more in-depth interactive and inquiry-based activities, as well as expert guidance from teachers. Independent online learning can allow students to do anything from practicing basic skills to engaging in complex research projects.

Recent research on technology-supported learning has found that well-designed blended instruction can be more effective than in-classroom learning alone when it:

- Combines in-person and asynchronous instruction in strategic ways that allow students to engage deeply with both the subject matter and teachers or groups of peers. The more intense the interaction among students, teachers, and interactive content, the deeper the learning.
- Gives students control over how they engage with online content. Students do better when they can go at their own pace, on their own time; when they have some choice over their learning strategies; and when materials enable them to engage deeply and critically with course content.
- Provides high-quality interactive multimedia materials. For example, students whose teachers integrated the use of the Pathways to Freedom Electronic Field Trips—an online collection of interactive activities designed by Maryland Public Television—in their teaching about slavery and the Underground Railroad outperformed those who had the same unit without these materials. Science students who used a virtual web-based science lab, which allowed them to conduct virtual experiments while teachers observed student work and corrected errors online, outperformed those who did an in-person manual science lab. Special education students who used a web-based program that supports writing in action (by prompting attention to the topical organization and structure of ideas during the planning and composing phases of writing) outperformed those who had the same materials in hard copy in the classroom.
- Provides opportunities for formative feedback, reflection, and revision: for example, offering resources for further practice and research when students answer an item incorrectly, providing prompts for students to reflect on their problem-solving activities or provide explanations regarding their work, or asking questions as students design studies to support their thinking processes.¹⁰¹

Explicit Teaching and Scaffolding

Teachers in effective schools work to ensure that students are taught the skills they need to develop and will be expected to apply. Instead of reducing the demands of the curriculum, the schools use formative assessments to understand what skills students already have and then construct a curriculum that explicitly teaches students how to study, how to approach academic tasks, how to read and write at a college level, and how to evaluate their own and others' work. This requires that teachers be conscious about teaching the skills needed to enable student success.

Explicit Teaching of Academic, Social, and Emotional Skills. The explicit teaching of academic, social, and emotional skills is especially important in high school. Much high school teaching assumes that students have already mastered advanced skills in reading, writing, and inquiry. Yet many 9th-graders are underprepared for high school. Some can only read at a basic level; are quickly swamped by the demands of serious academic texts; and do not know how to conduct research, synthesize information, or plan and structure a paper, experiment, or project. When students' skill gaps are not addressed, they often feel like a failure and begin to opt out. Effective high schools support less-skilled students to succeed not by offering a dumbed-down curriculum in a lower track, but by redesigning to make time and space for explicitly teaching the skills they need. This may occur within the core classroom, in special lab courses attached to rigorous classes in a separate period, in resource room settings, through online supports, or in small group tutoring contexts during or after the school day.

Effective schools also integrate social, emotional, and cognitive skills into instruction, explicitly providing instruction in how to recognize, name, and work through emotions, including anxiety about academic tasks and other school happenings; how to work collaboratively with others; how to engage in productive struggle toward learning and to persevere when challenges are encountered; and how to develop a growth mindset by seeing the process of feedback and revision as an opportunity, not a threat or a failure.

Scaffolding. In addition to teaching skills, student-centered teachers also provide careful scaffolding for student tasks. Instead of simply assigning students a research paper, for example, they lead students through a step-by-step process, from framing a question to finding sources to taking notes to developing a thesis to outlining to writing and editing, which leads them to a high-quality finished product. Students with different skill levels or learning needs receive different kinds of scaffolding. For example, a student who has never written a research paper before might be given model thesis statements from which to select and helped to write an outline for the paper, while a more experienced classmate might be expected to develop their own original thesis and outline.¹⁰²

One way to scaffold learning is through well-designed group work. Such collaborative learning starts with the design of “group-worthy tasks” that require different kinds of skills and abilities, and it is implemented through roles that support distributed expertise among the members. The learning process is often further structured through a set of questions or activity guides that provide substantial scaffolding, and it is accompanied by active peer and teacher coaching and assistance. Groups may present their findings or products and are taught to reflect on the work itself and on their group processes using rubrics that are themselves a form of intellectual scaffolding. This combination of factors, when applied to authentic, open-ended tasks, enables what educators Elizabeth Cohen and Rachel Lotan call complex instruction, an approach that has been found to support increased achievement that is also more equitably distributed.¹⁰³

Feedback and Revision

Another important characteristic of schools with a student-centered pedagogy is a learning environment in which teachers are aware of what students are thinking, and where the curriculum does not move on when students do not learn immediately. Unlike the traditional “teach, test, and hope for the best” approach, student-centered teachers do not say, “You got a C- on this assignment” and then move on to the next unit without looking back. Just as mastery is developed in the real world—whether by an Olympic skater, a musician, an athlete, or a scholar—work is structured so that students have the opportunity to tackle difficult tasks by iterating toward excellence.

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Culture of Revision and Redemption. Teachers construct a culture of revision and redemption that encourages students to attempt challenging work, provides continual opportunities for practice and revision, and supports students in developing the courage and confidence to work continuously to improve in their successive efforts. Within the guidelines of a performance assessment system (see [Feature 6: Authentic Assessment](#)), students can revise a piece of work again and again until it becomes better, and it becomes better still, finally meeting the standards the school has set.

Feedback. A student-centered pedagogy also establishes regular feedback among members of the classroom community as a gift. For example, students might be expected to read one another’s essay drafts and provide comments using a rubric that identifies key features of quality. In this way, students internalize standards and begin to apply them to their work on a regular basis. At the end of a lesson, a teacher might ask students to provide feedback on what they learned or which parts of the lesson worked more or less well for them. Periodically a teacher might host a community circle to discuss the effectiveness of the class. Soliciting feedback in multiple ways elevates student voice in the classroom and creates a culture in which everyone is always learning, including the teacher.

Educators who have worked to implement a student-centered pedagogy will understand quite well that it is very challenging to do so unless the school is already redesigned to support this kind of learning. If a teacher has a pupil load of 150 students or more, it will be more difficult to provide individualized scaffolds or ask students to do multiple revisions of a piece of work based on feedback. If the school uses pacing guides based on the expectation that the teacher’s role is to “give a chapter, give a test, give a grade,” teachers will feel there is no time to offer meaningful performance tasks that can guide a deeper learning process. If a school’s culture is not safe and inclusive, students will be less able to focus on the in-depth thinking and effort that challenging work requires. If teachers do not have time for collaboration and professional development, they may not know how to adjust their instruction to meet students’ needs. The features described here do not operate in isolation but rather build on one another to create environments in which all young people can thrive.

School Profile: Teaching So That All Students Can Learn at Gateway Public Schools



Photo provided by Gateway Public Schools.

Gateway High School was founded as a public high school in San Francisco, CA, in 1998 by a group of parents of students with disabilities who wanted to create a gateway to college for all students, regardless of learning style or family income. In 2011, Gateway opened a partner middle school. Together, the schools serve approximately 800 students who are admitted by lottery, with priority given to students with disabilities (about 25% of enrollees). About 80% are students of color, and most are from low-income families. About 98% of students graduate within 4 years of entering high school, and throughout its history, 96% of Gateway graduates have gone on to postsecondary education.

In keeping with the founding mission to support students with different learning styles, the Gateway schools practice an **inclusion model** in which students with learning disabilities take the same general education classes as their peers, with various additional supports. Gateway teachers believe that all students have different educational and emotional needs, regardless of whether they have a documented learning disability. Executive Director Sharon Olken explains the respect for universal human dignity that underlies this approach: “All the ways that people come to us different from each other are what make them unique and awesome and should not limit what they can achieve.”

Staff are explicit about discussing these learning differences from the outset to educate students about different ways of learning, so these discussions become part of their language and they develop an understanding that, as one teacher said, “It’s not everyone doing the same thing, but everyone getting what they need.”

Gateway's teachers work to get to know students so they can provide appropriate **scaffolding** for learning differences as early as possible, and students come to know about their own learning processes so they can eventually scaffold for themselves. Teachers have two aims: to create accessibility for all students in their classes and to help students identify how they learn and advocate for their own learning needs. Structures that enable staff and students to become connected include an advisory system that ensures each student has an adult advocate and liaison to the family, along with a daily advisory class; teaching teams with common planning time that share small cohorts of students for academic classes and a learning seminar; and regular outreach to families that is also built into teachers' and advisors' calendars.

To provide time for student-centered learning and reduce the number of students each teacher sees, Gateway has a **modified block schedule**. Core classes are organized in extended blocks to engage students in in-depth inquiry-based learning experiences in each class and to support coteaching and push-in support from the school's learning specialists and Learning Center teams.

Learning specialists share common planning time with content-area teachers so that they are fully integrated into instructional planning and can coteach lessons. Teachers collaborate to develop scaffolded texts for different reading levels, so all students can access the content in a way that works for them. Learning specialists often host small reading groups for students who need additional support, such as stopping and discussing between paragraphs of a complex reading.

When students need more support outside of class, they can go to **Gateway's Learning Center**, which is available to students with and without identified learning disabilities. The Learning Center offers small classes for students who struggle with decoding or reading comprehension, workshops on note-taking skills, intensive individual and small group support, and a space for quiet work for those who need a less busy learning environment to focus.

One student explained how this flexible and responsive approach to classroom support feels for them:

It's super open-armed, like if you have a question, your teacher will try their best to help you, and they help other people, and they let you and other people join in the conversation so it's not just one person. The teacher can actually just sit with you a minute and they're not just telling you what to do, but they're giving you hints on what to do, so you can try and figure it out yourself.

This approach is part of a commitment to enabling students to guide their own learning. That commitment is reflected in the use of student-led conferences during the school year, which allow students to formally share their portfolios of work and reflections on learning with their parents or guardians and teachers. The middle school uses **Process of Learning rubrics** as a way to focus on the how of learning: the particular pro-social and pro-academic habits and mindsets that contribute to learning and healthy development. Students with disabilities are also involved in planning and helping to lead their own individualized education plan (IEP) meetings, having discussed with their learning specialists what their IEP means for them. Students become proficient in understanding themselves as learners, and they leave the school knowing what they need and how to advocate for themselves. These conferences help students build agency and self-advocacy while also encouraging self-reflection and metacognition—important skills needed for meaningful learning.

These systems for student support at Gateway are embedded in an overall pedagogical approach that is designed to allow diverse learners to access the curriculum. Interdisciplinary **project-based learning and small group work** are common. Teachers spend significant time at the beginning of the school year teaching students how to work together productively, which allows them to engage collaboratively in open-ended discipline-based tasks with multiple entry points. These require interdependence, personal responsibility, and clear criteria for evaluation.

Teachers offer guidance, materials, and explanations, and they are readily available to answer questions and provide feedback; however, didactic instruction is minimal, and the bulk of class time is dedicated to active learning. As one student summed it up:

It's really helpful when teachers engage me and [say], "OK, we're going to do a lecture for 10 [or] 15 minutes where you obtain information so that next, when we do this activity, you know what to do, you have background information, and you can apply that to whatever we're doing."

Having established a clear classroom structure, teachers assume a supportive role in student-led activities. Classrooms are abuzz with students active in the process of questioning, researching, analyzing, and writing for the task at hand.

By offering an engaging, active pedagogy, creating a safe environment around learning differences, and taking a personalized approach that involves scaffolding to meet students where they are, Gateway teachers create the opportunity for students to challenge themselves in ways that are productive for their skill levels. As one student explained:

It's not too far advanced to where I just sit there and can't understand it. But it's not really easy so I just know how to do it automatically. So I like that I have to push myself a little bit, but I don't have to push myself to a breaking point. And if you don't get something, it's easy for you to communicate with your teachers and just ask them to help you with something.

Gateway's student-centered approach to pedagogy—combined with a relationship-driven culture, an emphasis on family engagement, and performance assessment—has produced impressive results.

Source: Cook-Harvey, C. M., Flook, L., Efland, E., & Darling-Hammond, L. (2020). *Teaching for powerful learning: Lessons from Gateway Public Schools*. Learning Policy Institute.

Additional Resources

Case Studies of Schools That Illustrate Student-Centered Teaching

- [Internationals Network for Public Schools: A Deeper Learning Approach to Supporting English Learners](#), Martens Roc, Peter Ross, and Laura E. Hernández, Learning Policy Institute: The Internationals model emphasizes rigorous academics, linguistic dignity, and bilingualism. Internationals schools integrate language development across content areas while engaging students in deeper learning—an approach that includes project-based learning, work-based learning, and performance assessments that allow students to explore their interests and learn academic content in personalized and inquiry-based ways.

- [Teaching for Powerful Learning: Lessons From Gateway Public Schools](#), Channa Cook-Harvey, Lisa Flook, Emily Efland, and Linda Darling-Hammond, Learning Policy Institute: Gateway Public Schools' founding ideals—focused on empowering students of all learning styles—have transformed into a set of guiding principles for effectively supporting students of all backgrounds.
- [Teaching the Way Students Learn Best: Lessons From Bronxdale High School](#), Jacqueline Ancess, Bethany L. Rogers, Deanna Duncan Grand, and Linda Darling-Hammond, Learning Policy Institute: This case study of Bronxdale High School in New York City provides an in-depth look at how a successful school serving diverse learners organizes its structures and practices consistent with knowledge rooted in the science of learning and development.

Universal Design for Learning

- [About Universal Design for Learning](#), CAST: This resource and its videos explain the Universal Design for Learning framework and how educators can use it to create instructional goals, assessments, methods, and materials that meet student needs. It points to concrete strategies to guide the implementation of a Universal Design for Learning framework in any learning environment and is accompanied by FAQs and additional resources.
- [Lesson Planning With Universal Design for Learning \(UDL\)](#), Allison Posey, Understood: This step-by-step guide is designed to help educators create lessons that meet the needs of all students. It offers guidance on how to proactively reflect on, design, and implement lessons.
- [Planning Differentiated, Multicultural Instruction for Secondary Inclusive Classrooms](#), Delinda van Garderen and Catharine Whittaker, TEACHING Exceptional Children: This article provides an overview of key principles and examples of differentiated instruction, Universal Design for Learning, and multicultural education, as well as a unit planner template to help educators put these components into action.
- [What Is Assistive Technology?](#) Andrew M. I. Lee, Understood: This web resource explains how assistive technology can help youth overcome learning challenges. It also provides examples of the various tools that can be used in different content areas and with different age groups.

Scaffolding for Learning

- [Resources From the Center for Research on Learning](#), University of Kansas: This center works with schools to improve literacy and learning. It generates resources, including teacher-focused and student-focused interventions that can scaffold and bolster learning.
- [Scaffolding in Education](#), Becton Loveless, Education Corner: This resource provides educators with an overview of the benefits of scaffolding and possible implementation challenges. It also describes various scaffolding techniques and tools that practitioners can use to support teaching and learning.
- [Six Scaffolding Strategies to Use With Your Students](#), Rebecca Alber, Edutopia: This resource describes six scaffolding strategies that practitioners can use to support student learning: (1) show and tell; (2) tap into prior knowledge; (3) provide time to talk; (4) pre-teach vocabulary; (5) use visual aids; and (6) pause, ask questions, pause, review.