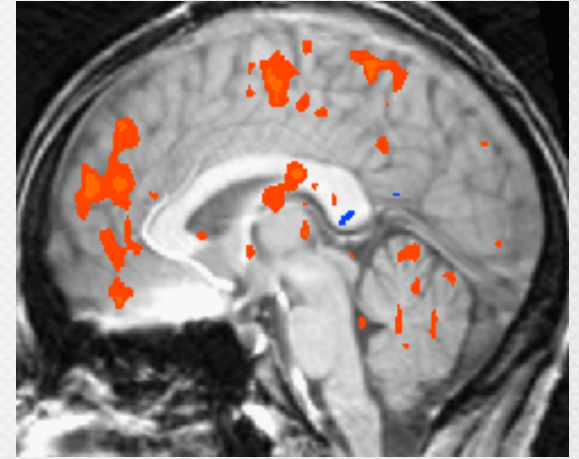
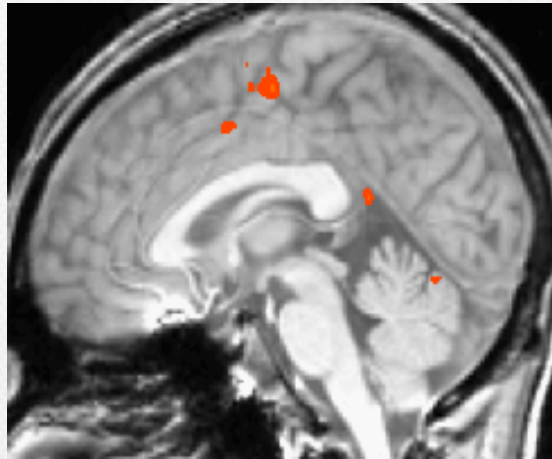
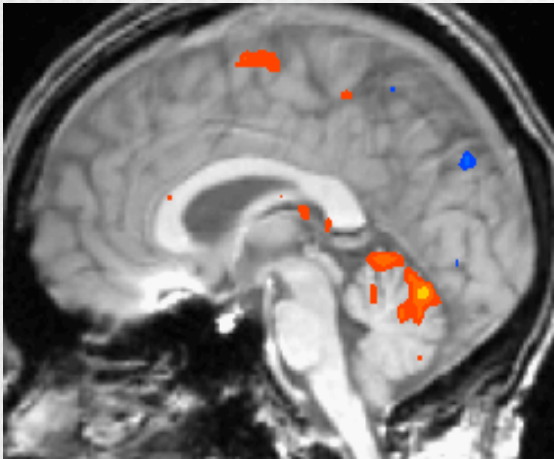


Universal Design for Learning

Presented by Diana Inouye and Lisa Ward
Division of Special Education and Division of Instruction



Learner Variability



The Reality

- Students come to the classroom with a variety of needs, skills, talents, interests and various learning styles.
- The typical curriculum is filled with barriers and other obstacles, and has minimal supports for students.



Universal Design for Learning

- Equitable opportunities for all
- Access to all aspects of learning
- Mythical “average” student
- Design curricula to meet the varied instructional needs of all

Sources: *ELA/ELD Framework (2014) and Mathematics Framework (2013)*, California Department of Education

Every Student Succeeds Act



Universal Design for Learning (UDL) means a scientifically valid framework for guiding educational practice that – (A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and (B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.

Higher Education Opportunity Act of 2008

National Education Technology Plan

“Education stakeholders should develop a born accessible standard of learning resource design to help educators select and evaluate learning resources for accessibility and equity of learning experience....using the principles and research-based UD and UDL...”



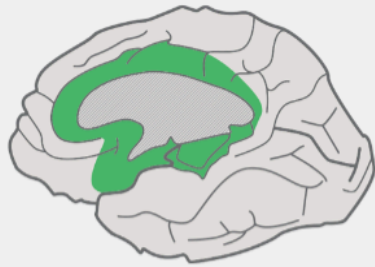






Three Networks

AFFECTIVE NETWORKS:
THE **WHY** OF LEARNING



RECOGNITION NETWORKS:
THE **WHAT** OF LEARNING

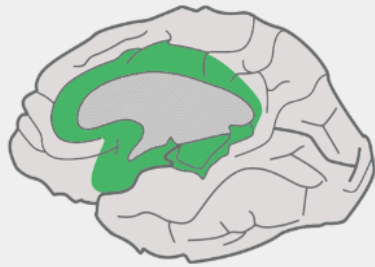


STRATEGIC NETWORKS:
THE **HOW** OF LEARNING



Universal Design for Learning

AFFECTIVE NETWORKS:
THE **WHY** OF LEARNING



Engagement

For purposeful, motivated learners, stimulate interest and motivation for learning.

RECOGNITION NETWORKS:
THE **WHAT** OF LEARNING



Representation

For resourceful, knowledgeable learners, present information and content in different ways.

STRATEGIC NETWORKS:
THE **HOW** OF LEARNING



Action & Expression

For strategic, goal-directed learners, differentiate the ways that students can express what they know.

Source: National Center on Applied Special Technology:
www.cast.org

(c) CAST 2015

#LAUSDandUDL

Multiple Means of Engagement

Affective Networks

The "why" of learning



Provide options for:

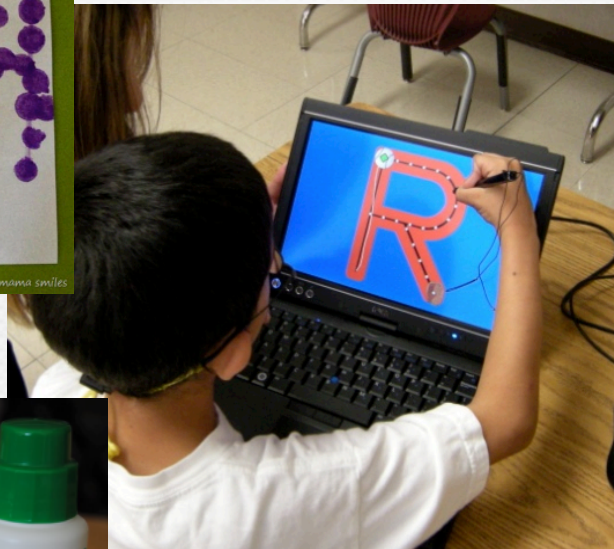
- Recruiting interest
- Sustaining effort & persistence
- Self regulation



Stimulate interest and motivation for learning

Examples from the Classroom

Multiple Means of Engagement



Multiple Means of Representation

Recognition Networks

The "what" of learning



Provides options
for:

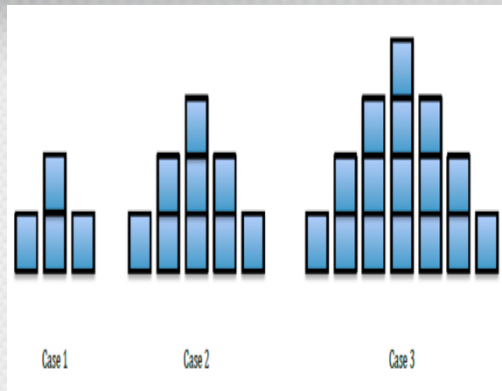
- Perception
- Language and Symbols
- Comprehension



Present information and
content in different ways

Examples from the Classroom

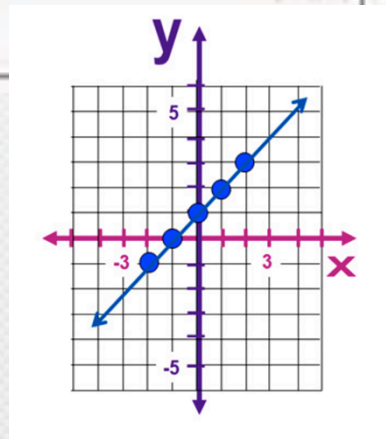
Multiple Means of Representation



X	Y

$$y = 3x - 4$$

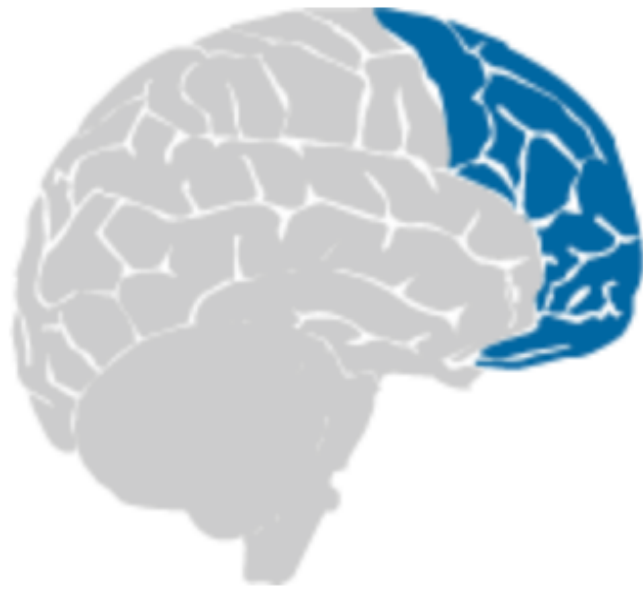
Concrete	Representational	Abstract
Students manipulate hands-on, concrete materials	Students draw and observe diagrams, or watch the teacher touching and moving hands-on materials	Numbers and mathematical symbols



Multiple Means of Action & Expression

Strategic Networks

The "how" of learning



Provide options for:

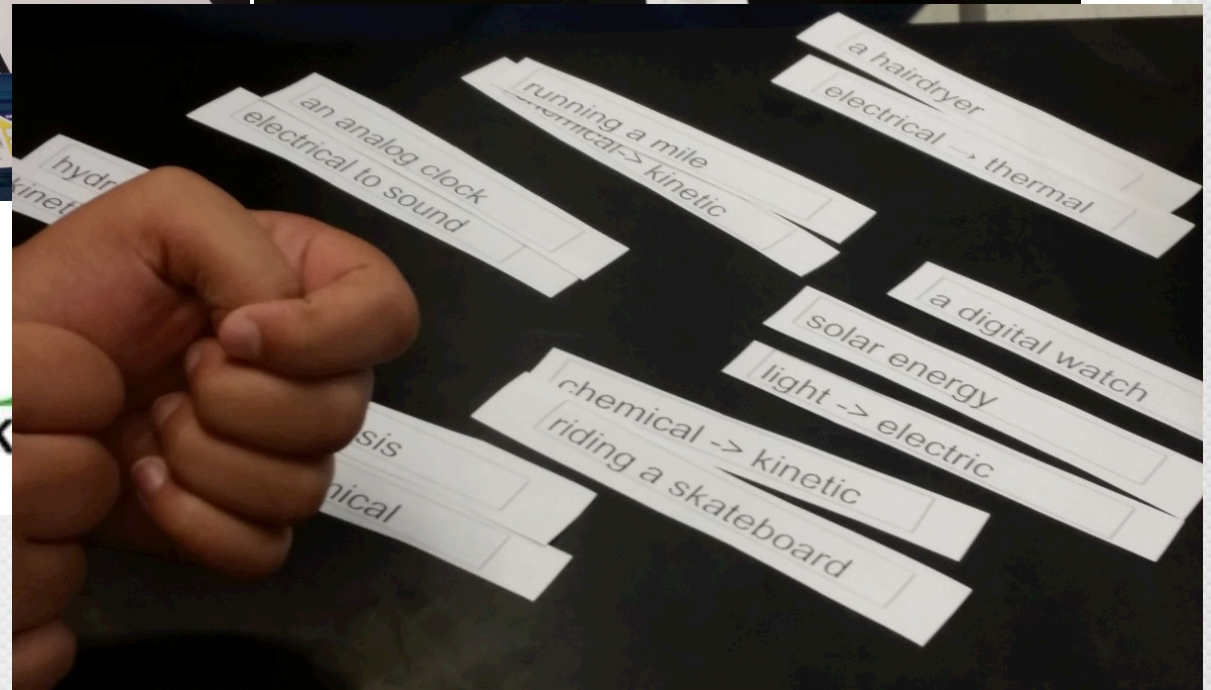
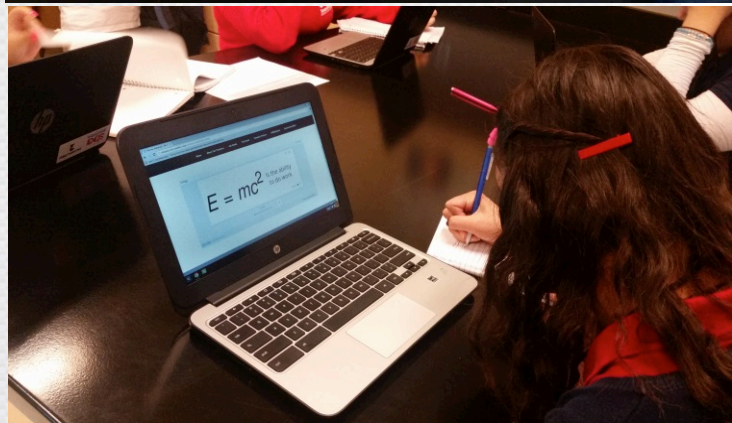
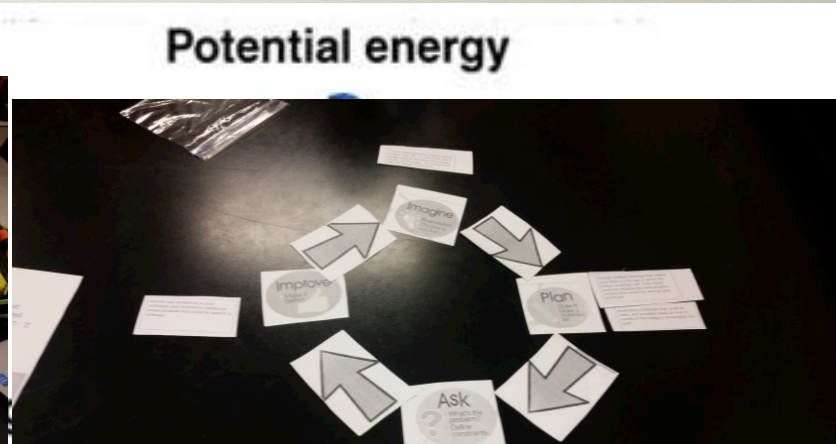
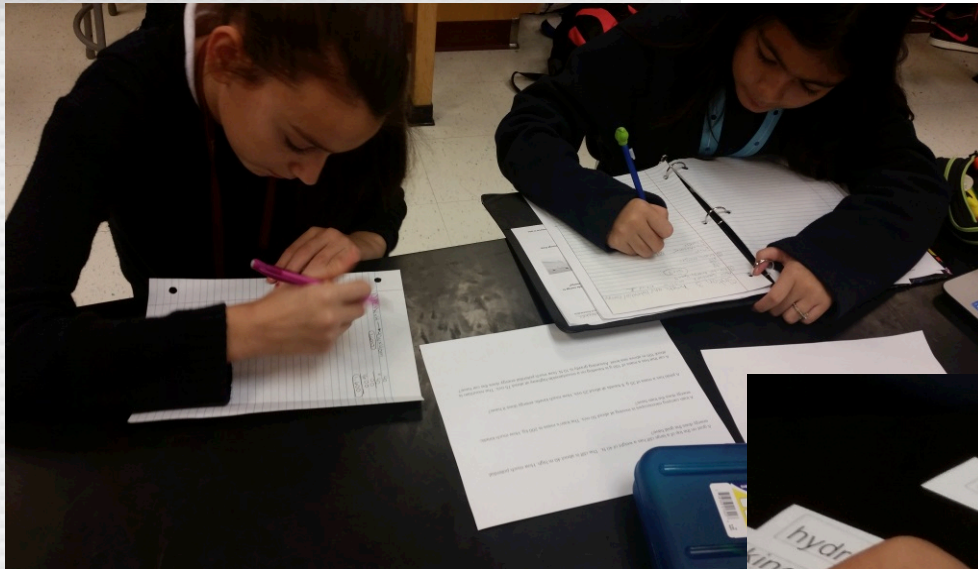
- Physical action
- Expressive skills and fluency
- Executive functions



Differentiate the ways that students can express what they know

Examples from the Classroom

Multiple Means of Representation



Reduce barriers in the environment – same goal with options for all





Snapshot 9.2. Differentiated Instruction in a Co-Taught Language Arts Class in Grade Nine (cont.)

At the end of class, students complete an Exit Slip responding to a writing prompt about the author's claims and support for those claims. In this way, Ms. Williams and Ms. Malouf are able to formatively assess how accurately students can independently express the authors' claims and support for those claims. The Exit Slip provides an informal measure of the students' understanding, allowing the teachers to adapt and differentiate their planning and instruction for the following lesson. At the end of the unit, students will write an argumentative essay using their completed graphic organizers as well as copies of all three texts.

Some of the students in this class are also enrolled in an English 9 supplemental support class taught by Ms. Malouf after school. This companion class is designed to provide additional time and support to help students learn the content of the core English course and build specific literacy skills. The lower teacher-to-student ratio in the support class allows for targeted direct instruction based on student needs so that students accelerate their progress in achieving grade-level standards. In addition, Ms. Malouf previews and reinforces lessons and skills from the English 9 course and provides additional scaffolds as needed, gradually removing them as students gain skills.

CA CCSS for ELA/Literacy: RL.9.10; RI.9.1–3, 5, 10; W.9.1, 4; W.9.9b; SL.9.1, 4

Planning for and Supporting the Range of Learners

This section of the chapter addresses processes and structures at the classroom, school, and district levels for planning instruction and systems to support all of California's learners in transitional kindergarten through grade twelve. It begins with a discussion of Universal Design for Learning and then presents information about Multi-Tiered System of Supports and the implementation of culturally and linguistically responsive pedagogy.

Universal Design for Learning

Universal Design for Learning (UDL) is a research-based framework for guiding educational practice. (See <http://www.cast.org> and <http://www.udlcenter.org>.) Based on the premise that one-size-fits-all curricula create unintentional barriers to learning for many students, including the mythical average student, UDL focuses on **planning instruction** to meet the varied needs of students. UDL is not a special education initiative. Rather, UDL acknowledges the needs of all learners at the point of *planning* and *first teaching*, thereby reducing the amount of follow-up and alternative instruction necessary.

UDL involves the use of effective teaching practices and the intentional differentiation of instruction from the outset to meet the needs of the full continuum of learners. Teachers who employ UDL attend to how information is represented as well as choices for student engagement, action, and expression. In other words, as they plan, general education teachers consider different ways of stimulating students' interest and motivation for learning, different ways to present information and content, and different ways that students can express what they know—all based on students' needs and assets and strengths (CAST 2013). Principles and guidelines for the implementation of UDL are summarized in figure 9.8, which is followed by a more detailed text discussion.

Figure 9.8. UDL Principles and Guidelines

Principle <i>Provide multiple means of . . .</i>	Guidelines <i>Provide options for . . .</i>
I. Engagement	Self-Regulation Effort and Persistence Recruiting Interest
II. Representation	Comprehension Language, Mathematical Expressions, and Symbols Perception
III. Action and Expression	Executive Functions Expression and Communication Physical Action
Source CAST. 2013. <i>Universal Design for Learning Guidelines Version 2.0</i> . Wakefield, MA: Author.	

Principle I: Provide multiple means of engagement to tap individual learners’ interests, challenge them appropriately, and motivate them to learn.

Guideline 1: Provide options for self-regulation.

- Promote expectations and beliefs that optimize motivation (e.g., help students set personal goals).
- Facilitate personal coping skills and strategies (e.g., share checklists for managing behavior).
- Develop self-assessment and reflection (e.g., support students in identifying progress toward goals).

Guideline 2: Provide options for sustaining effort and persistence.

- Heighten salience of goals and objectives (e.g., periodically discuss a targeted goal and its value).
- Vary demands and resources to optimize challenge (e.g., offer structures for group work and discuss expectations).
- Foster collaboration and communication (e.g., offer structures for group work and discuss expectations).
- Increase mastery-oriented feedback (e.g., provide timely and specific feedback).

Guideline 3: Provide options for recruiting interest.

- Optimize individual choice and autonomy (e.g., provide learners choice in the order they accomplish tasks).
- Optimize relevance, value, and authenticity (e.g., provide home and community audiences for students’ work).
- Minimize threats and distractions (e.g., ensure respectful interactions and provide quiet spaces).

Principle II: Provide multiple means of representation to give students various ways of acquiring, processing, and integrating information and knowledge.

Guideline 4: Provide options for comprehension.

- Activate or supply background knowledge (e.g., use advanced organizers and make explicit cross-curricular connections).
- Highlight patterns, critical features, big ideas, and relationships (e.g., use outlines to emphasize important ideas or draw students' attention to critical features).
- Guide information processing, visualization, and manipulation (e.g., provide explicit prompts for each step in a sequential process).
- Maximize transfer and generalization (e.g., embed new ideas in familiar contexts).

Guideline 5: Provide options for language, mathematical expressions, and symbols.

- Clarify vocabulary and symbols (e.g., provide a glossary or graphic equivalents or teach word components).
- Clarify syntax and structure (e.g., highlight transition words).
- Support decoding of text or mathematical notation (e.g., use digital text with accompanying human voice recording).
- Promote understanding across languages (e.g., use the language of the students).
- Illustrate key concepts through multiple media (e.g., provide illustrations, simulations, or interactive graphics or make explicit the connections between text and illustrations, diagrams, or other representations of information).

Guideline 6: Provide options for perception.

- Customize the display of information (e.g., change the size of text or images or changing the volume of speech).
- Provide alternatives for auditory information (e.g., provide written transcripts or use American Sign Language).
- Provide alternatives for visual information (e.g., provide descriptions of images, tactile graphics, or physical objects).

Principle III: Provide multiple means of action and expression to provide students with options for navigating and demonstrating learning.

Guideline 7: Provide options for executive functions.

- Guide appropriate goal-setting (e.g., support learners in estimating the difficulty of a goal).
- Support planning and strategy development (e.g., support learners in identifying priorities and a sequence of steps).
- Facilitate managing information and resources (e.g., provide guides for note-taking).
- Enhance capacity for monitoring progress (e.g., prompt learners to identify the type of feedback they seek).

Guideline 8: Provide multiple tools for construction and composition.

- Use multiple media for communication (e.g., provide options for composing, such as in text and film).

- Provide appropriate tools for composition and problem solving (e.g., provide concept mapping tools).
- Build fluencies with graduated levels of support for practice and performance (e.g., provide more or less scaffolding depending upon the learner).

Guideline 9: Provide options for physical action.

- Vary the methods for response and navigation (e.g., provide learners with alternatives to responding on paper).
- Integrate assistive technologies (e.g., have touch screens and alternative keyboards accessible).

When initial instruction is planned in a way that flexibly addresses learner variability, more students are likely to succeed. Fewer students will find initial instruction inaccessible, and therefore fewer require additional, alternative “catch up” instruction.

Multi-Tiered System of Supports

A coordinated system of supports and services is crucial for ensuring appropriate and timely attention to students’ needs. The Multi-Tiered System of Supports (MTSS) model expands California’s Response to Intervention and Instruction (RtI²) process by aligning all systems of high-quality first instruction, support, and intervention and including structures for building, changing, and sustaining systems. The foundational structures of MTSS include high-quality core instruction using UDL principles and appropriate supports, strategies, and accommodations. In addition, assessment processes and progress monitoring are employed to allow for a data-based, problem-solving approach to instructional decision-making.

Like RtI², MTSS incorporates the three tiered structure of increasing levels of supports beginning with the establishment of strong core instruction in Tier 1. These tiers reflect the intensity of instruction, not specific programs, students, or staff (i.e., Title 1 or special education).

Like RtI², MTSS incorporates the three tiered structure of increasing levels of supports beginning with the establishment of strong core instruction in Tier 1. These tiers reflect the intensity of instruction, not specific programs, students, or staff (i.e., Title 1 or special education). The tiers are discussed here and displayed in figure 9.9.

- **Tier 1:** Tier 1 core or universal instruction, also known as *first teaching*, is differentiated instruction delivered to **all students in general education**. Differentiated instruction entails the use of a variety of evidence-based instructional approaches and the use of appropriate materials and curriculum in response to the interests, preferences, and readiness of diverse learners. It is not a program but a way for teachers to think effectively about whom they teach, where they teach, and how they teach to maximize all students’ academic potential (Glass 2012). Teachers design instruction for this tier in accordance with the principles of UDL (see previous section in this chapter). The goal is for all students to receive high-quality, standards-aligned instruction, using culturally and linguistically responsive teaching (see next section in this chapter), that meets the full range of student needs. ELD instruction (both integrated and designated ELD) is part of this core first teaching for ELs. Expectations for behavior are made explicit. Valid universal screenings that identify students’ progress toward identified goals are reliably administered to ensure that all students benefit from core instruction. Tier 1 instruction should result in no less than 80% of students achieving grade-level expectations. If less than 80% succeed in Tier 1 instruction, schools should engage in close examination of the curriculum and teaching practices and make appropriate adjustments.

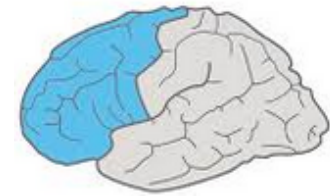
Universal Design for Learning Guidelines



Provide Multiple Means of Engagement
Purposeful, motivated learners



Provide Multiple Means of Representation
Resourceful, knowledgeable learners



Provide Multiple Means of Action & Expression
Strategic, goal-directed learners

Provide options for self-regulation

- + Promote expectations and beliefs that optimize motivation
- + Facilitate personal coping skills and strategies
- + Develop self-assessment and reflection

Provide options for comprehension

- + Activate or supply background knowledge
- + Highlight patterns, critical features, big ideas, and relationships
- + Guide information processing, visualization, and manipulation
- + Maximize transfer and generalization

Provide options for executive functions

- + Guide appropriate goal-setting
- + Support planning and strategy development
- + Enhance capacity for monitoring progress

Provide options for sustaining effort and persistence

- + Heighten salience of goals and objectives
- + Vary demands and resources to optimize challenge
- + Foster collaboration and community
- + Increase mastery-oriented feedback

Provide options for language, mathematical expressions, and symbols

- + Clarify vocabulary and symbols
- + Clarify syntax and structure
- + Support decoding of text, mathematical notation, and symbols
- + Promote understanding across languages
- + Illustrate through multiple media

Provide options for expressive skills and fluency

- + Use multiple media for communication
- + Use multiple tools for construction and composition
- + Build fluencies with graduated levels of support for practice and performance

Provide options for recruiting interest

- + Optimize individual choice and autonomy
- + Optimize relevance, value, and authenticity
- + Minimize threats and distractions

Provide options for perception

- + Offer ways of customizing the display of information
- + Offer alternatives for auditory information
- + Offer alternatives for visual information

Provide options for physical action

- + Vary the methods for response and navigation
- + Optimize access to tools and assistive technologies