TABLE 1.1 UDL Principles and Guidelines With Examples

Principle 1: Provide multiple means of representation *How is the information presented to the learner?* *Have you customized the display of information?* *Did you use alternative formats for auditory* *and visual information in examples?* *Did you provide content at varying levels of challenge and relevance?*	
Guidelines	Examples
1. Provide options for perception	• Alternating size for text, images, graphs, and tables • Contrast of background and text • Color coding for emphasis • Utilizing digital formats, graphic organizers, color coding • Adjusting volume and rate of speech • Providing info through multiple sensory inputs • Adjusting speed and timing of video, sounds, or simulations • Adjusting layout of material • Adjusting type of font
2. Provide options for language models	• Preteach concepts and connect to background knowledge • Use alternative visual formats with text descriptions • Highlight root words • Embed hyperlinks or footnotes to further explanations of concepts • Provide explanations of unfamiliar concepts in a text • Provide multiple examples of cultural and language models • Provide explicit connections between print concepts and visual representations

TABLE 1.1 (*Continued*)

Guidelines	Examples
3. Provide options for comprehension	• Use visual imagery, concept anchoring, or concept mastery routines • Use advanced organizers such as KWL (Know, Want-to-Know, Learned) or concept maps • Preteach via modeling • Design lessons to increase information processing skills • Connect concepts through analogies/metaphors • Provide explicit cross-curricular connections

Principle 2: Provide multiple means of action and expression
How does the learner express what they know?
What is your plan for accepting varied response formats?
How will learners access tools and assistive technology
to provide flexibility in expression?

Guidelines	Examples
4. Provide options for physical action	• Nonpen/pencil response formats • Switches, joysticks, keyboards, etc. • Alternative keyboards • Customized overlays for touch screen or keyboard • Accessible software
5. Provide options for expressive skills and fluency	• Formats include text, speech, drawing, illustration, design, film, music, dance/movement, visual art, sculpture, or video • Virtual or physical manipulatives such as blocks, 3D models, or base-10 blocks • Social media and online tools, such as discussion forums, chats, website design, annotation tools, storyboards, comic strips, animated presentations

(*Continued*)

TABLE 1.1 (*Continued*)

Guidelines	Examples
	• Spellcheckers, grammar checkers, word prediction software • Text-to-speech software (voice recognition), human dictation, recording • Calculators, graphing calculators, geometric sketchpads, or preformatted graph paper • Sentence starters or sentence strips • Story webs, outlining, or concept mapping tools • Computer-aided design, music notation (writing) software, or mathematical notation software
6. Provide options for executive function	• Scaffold lower-level skills to reduce executive processing • Scaffold higher-level skills to enhance development • Embed prompts for categorizing • Provide checklists and guides for note-taking • Provide questions to guide self-monitoring and reflection • Document progress through before/after photos, graphs, or charts showing progress over time, process portfolios • Provide self-reflection templates • Provide differentiated models of self-assessment strategies, including role-playing, video reviews, peer feedback • Provide assessments, checklists, rubrics, and student work/performance examples

TABLE 1.1 (*Continued*)

Principle 3: Provide multiple means of engagement *Why is the learner engaged in the topic?* *Have you provided a variety of avenues to comprehension?* *Have you provided opportunities for choice and goal setting?*	
Guidelines	Examples
7. Provide options for recruiting interest	• Provide choice in challenge level, rewards, context, content, information-gathering tools, graphics, and design of layouts, sequence/timing for tasks • Plan for participation, exploration, and experimentation of learners in all classroom activities and tasks • Initiate learners to set academic and behavioral goals • Connect activities and information to learners' lives, use imagination to solve problems, and make sense of complex ideas through creative means • Ensure that tasks are culturally and linguistically responsive, are age and ability appropriate, contain authentic and clear learning outcomes, and invite self-reflection • Establish an asset-based classroom climate • Increase predictability of activities and transitions by using charts, calendars, schedules, visible timers, cues, class routines, alerts, and previews to prepare for changes • Maximize the unexpected by varying the following in daily routines: the level of sensory stimulation, background noise, visual stimulation, noise buffers, number of items presented, pace, length, breaks, or sequence • Include all participants in all class discussions

TABLE 1.1 (*Continued*)

Guidelines	Examples
8. Provide options for sustaining effort and persistence	• Direct learners to develop goals and monitor progress in multiple ways • Use technology scheduling and reminder tools • Visually represent outcomes • Differentiate instruction and assessment to focus on process, effort, and improvement • Create cooperative learning groups with clear roles and expectations • Implement school-wide positive behavior support programs • Establish peer tutors and a community of learners • Provide timely, specific, substantive, and informative feedback that models how to incorporate evaluation
9. Provide options for self-regulation	• Explicitly address self-regulation techniques in the classroom • Provide prompts, reminders, guides, rubrics, checklists, coaches, and mentors to aid in goal setting • Provide differentiated instruction that includes modeling, scaffolding, and feedback to manage frustration, seek emotional support, develop coping skills, handle phobias, and use an asset-based mindset • Use role-play or real-life situations to develop coping skills • Teach academic and behavioral progress-monitoring skills in accessible formats such as charts, tables, and templates

Note. For details, see the following references: CAST (2011); Coyne et al. (2012); Hartmann (2011); Rose and Gravel (2010). UDL = Universal Design for Learning.