# deck of s p a c e s™

the idea deck for creating spaces aligned with Universal Design for Learning



# K-12 Second Edition Deck of Spaces

# REFERENCE GUIDE

CARD ALIGNMENT AND IDEA GUIDE



This Reference Guide was developed to provide a crosswalk among the ideas in the K-12 Second Edition Deck of Spaces<sup>TM</sup> and the UDL Guidelines. As developed by CAST (©2022), the UDL Guidelines provide a foundation for supporting the variability across learners and offers a framework to provide equity to all learners. Learning environments can play a supporting role in the creation or mitigation of learning barriers. The Deck of Spaces<sup>TM</sup> is a tool-kit – a series of thought starters – to help everyone consider ways to improve learning spaces and to better articulate ideas about the power of space design in the support or equity-based learning. We hope you enjoy applying this crosswalk in conjunction with the idea cards in the Deck of Spaces<sup>TM</sup>.

There's no one way to use the Reference Guide. If you're working on a particular checkpoint in the UDL Guidelines, you can do a "Cntl F" function in this Reference Guide, type in the term you're working on, and find all the cards that have relevance to that UDL checkpoint. Or you can simply browse the Reference Guide alongside the cards to give yourself more ideas about how the space design idea cards could be integrated with your lessons and applied in your classroom or school.

To purchase the **K12 Second Edition Deck of Spaces™**, click <u>here</u> to go to the CAST Publishing bookstore, or scan this QR code.



For more information about the UDL Guidelines, click here.



**Engagement** 

Affective Networks
The "WHY" of Learning

Provide multiple means of **Representation** 

Recognition Networks
The "WHAT" of Learning

Provide multiple means of **Action & Expression** 

Strategic Networks
The "HOW" of Learning

Access

Build

Provide options for

### Recruiting Interest (7)

- Optimize individual choice and autonomy (7.1)
- Optimize relevance, value, and authenticity (7.2)
- Minimize threats and distractions (7.3)

Provide options for

### Perception (1)

- Offer ways of customizing the display of information (1.1)
- Offer alternatives for auditory information (1.2)
- Offer alternatives for visual information (1.3)

Provide options for

### Physical Action (4)

- Vary the methods for response and navigation (4.1)
- Optimize access to tools and assistive technologies (4.2)

Provide options for

### **Sustaining Effort & Persistence** (8)

- Heighten salience of goals and objectives (8.1)
- Vary demands and resources to optimize challenge (8.2)
- Foster collaboration and community (8.3)
- Increase mastery-oriented feedback (8.4)

Provide options for

### Language & Symbols ②

- Clarify vocabulary and symbols (2.1)
- Clarify syntax and structure (2.2)
- Support decoding of text, mathematical notation, and symbols (2.3)
- Promote understanding across languages (2.4)
- Illustrate through multiple media (2.5)

Provide options for

### **Expression & Communication (5)**

- Use multiple media for communication (5.1)
- Use multiple tools for construction and composition (5.2)
- Build fluencies with graduated levels of support for practice and performance (5.3)

Provide options for

### **Self Regulation** (9)

- Promote expectations and beliefs that optimize motivation (9.1)
- Facilitate personal coping skills and strategies (9.2)
- Develop self-assessment and reflection (9.3)

Provide options for

### **Comprehension** (3)

- Activate or supply background knowledge (3.1)
- Highlight patterns, critical features, big ideas, and relationships (3.2)
- Guide information processing and visualization (3.3)
- Maximize transfer and generalization (3.4)

Provide options for

### **Executive Functions** (6)

- Guide appropriate goal-setting (6.1)
- Support planning and strategy development (6.2)
- Facilitate managing information and resources (6.3)
- Enhance capacity for monitoring progress (6.4)

**Expert learners** who are...

**Purposeful & Motivated** 

Resourceful & Knowledgeable

**Strategic & Goal-Directed** 

Goal

Internalize

deck of spaces™

# STUDENT EXPERIENCES

# S.1 Celebrate student diversity with diverse classroom design

### 1.3 Offer alternatives for visual information

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate. timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 4.2 Optimize access to tools and assistive technologies

### 5.1 Use multiple media for communication

 Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, 8.2 Vary demands and resources to optimize music, dance, visual art, sculpture or video

### 5.2 Use multiple tools for construction and composition

- · Use story webs, outlining tools, or mapping tools
- Provide Computer-Aided-Design (CAD), music notation software, or mathematical notation software
- Use web applications (e.g., wikis, animation, presentation)

### 7.1 Optimize individual choice and autonomy

- · Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- Vary the level of novelty or risk
- · Vary the level of sensory stimulation
- · Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

- Provide alternatives in the permissible tools and
- · Vary the degrees of freedom for acceptable
- Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- · Create cooperative learning groups with clear goals. roles, and responsibilities
- · Provide prompts that guide learners in when and how to ask peers and/or teachers for help
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

# 9.1 Promote expectations and beliefs that optimize

· Support activities that encourage self-reflection and identification of personal goals

### 9.3 Develop self-assessment and reflection

 Offer devices, aids, or charts to assist individuals in learning to collect, chart and display data from their own behavior for the purpose of monitoring changes in those behaviors

# S.2 Engage active learning

### 3.3 Guide information processing, visualization, and manipulation

- Provide interactive models that guide exploration and new understandings
- · Provide multiple entry points to a lesson and optional pathways through content (e.g., exploring big ideas through dramatic works, arts and literature, film and media)

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate. timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- · Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 4.2 Optimize access to tools and assistive technologies

### 5.1 Use multiple media for communication

· Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design,

film, music, dance, visual art, sculpture or video · Solve problems using a variety of strategies

### 5.2 Use multiple tools for construction and composition

Use story webs, outlining tools, or concept mapping

### 6.4 Enhance capacity for monitoring progress

- · Ask questions to guide self-monitoring and reflection
- Show representations of progress (e.g., before and after photos, graphs and charts showing progress over time, process portfolios)
- · Provide differentiated models of self-assessment strategies (e.g., role-playing, video reviews, peer feedback)

### 7.1 Optimize individual choice and autonomy

- · Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- · Vary activities and sources of information
- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation. exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- · Vary the level of novelty or risk
- · Vary the level of sensory stimulation
- · Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.2 Vary demands and resources to optimize challenge

Provide alternatives in the permissible tools and

· Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- · Create cooperative learning groups with clear goals, roles, and responsibilities
- Provide prompts that guide learners in when and how to ask peers and/or teachers for help
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

### 9.3 Develop self-assessment and reflection

· Offer devices, aids, or charts to assist individuals in learning to collect, chart and display data from their own behavior for the purpose of monitoring changes in those behaviors

# S.3 Allow students to "make space"

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate. timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- · Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 6.2 Support planning and strategy development

· Embed prompts to "stop and think" before acting as well as adequate space

### 7.1 Optimize individual choice and autonomy

- · Provide learners with as much discretion and autonomy · Encourage and support opportunities for peer
- · Allow learners to participate in the design of classroom · activities and academic tasks

### 7.3 Minimize threats and distractions

- · Create an accepting and supportive classroom climate
- Vary the level of novelty or risk
- · Vary the level of sensory stimulation

 Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

# 8.2 Vary demands and resources to optimize

· Vary the degrees of freedom for acceptable performance

### 8.3 Foster collaboration and community

- · Create cooperative learning groups with clear goals, roles, and responsibilities
- interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities

# 9.1 Promote expectations and beliefs that optimize

 Support activities that encourage self-reflection and identification of personal goals

# S.4 Offer structured choices

### 1.2 Offer alternatives for auditory information

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives. and technologies
- · Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 4.2 Optimize access to tools and assistive technologies

### 5.1 Use multiple media for communication

- · Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
- Solve problems using a variety of strategies

### 5.2 Use multiple tools for construction and composition

· Use story webs, outlining tools, or concept mapping tools

- Provide Computer-Aided-Design (CAD), music notation software, or mathematical notation software
- Use web applications (e.g., wikis, animation. presentation)

### 5.3 Build fluencies with graduated levels of support for practice and performance

- Provide differentiated models to emulate (i.e. models) that demonstrate the same outcomes but use differing approaches, strategies, skills, etc.)
- Provide scaffolds that can be gradually released with increasing independence and skills (e.g., embedded into digital reading and writing software)
- · Provide multiple examples of novel solutions to authentic problems

### 7.1 Optimize individual choice and autonomy

- · Provide learners with as much discretion and autonomy as possible
- · Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

· Vary activities and sources of information

### 7.3 Minimize threats and distractions

- · Vary the level of novelty or risk
- Vary the level of sensory stimulation
- · Vary the social demands required for learning or performance

# 8.2 Vary demands and resources to optimize

- Provide alternatives in the permissible tools and
- Vary the degrees of freedom for acceptable
- Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

Create cooperative learning groups with clear goals, roles, and responsibilities

- · Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

### 9.1 Promote expectations and beliefs that optimize motivation

- · Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration
- · Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

· Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

# S.5 Shape space with light

### 1.3 Offer alternatives for visual information

### 7.1 Optimize individual choice and autonomy

- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

 Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

· Create an accepting and supportive classroom climate

# 9.1 Promote expectations and beliefs that optimize motivation

- Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration
- Increasing the length of on-task orientation in the face of distractions
- Elevating the frequency of self-reflection and selfreinforcements

# S.6 Use every square foot for learning

# 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

# 6.4 Enhance capacity for monitoring progress

- Ask questions to guide self-monitoring and reflection
- Provide differentiated models of selfassessment strategies (e.g., role-playing, video reviews, peer feedback)

# 7.1 Optimize individual choice and autonomy

 Provide learners with as much discretion and autonomy as possible  Allow learners to participate in the design of classroom activities and academic tasks

# 7.2 Optimize relevance, value, and authenticity

- Vary activities and sources of information
- Provide tasks that allow for active participation, exploration and experimentation

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- Vary the level of novelty or risk
- Vary the level of sensory stimulation
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

# 8.2 Vary demands and resources to optimize challenge

- Provide alternatives in the permissible tools and scaffolds
- Vary the degrees of freedom for acceptable performance

### 8.3 Foster collaboration and community

- Encourage and support opportunities for peer interactions and supports (e.g., peertutors)
- Construct communities of learners engaged in common interests or activities
- Create expectations for group work

# 9.1 Promote expectations and beliefs that optimize motivation

 Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration

# S.7 Embrace fidgeting and movement

### 7.1 Optimize individual choice and autonomy

Provide learners with as much discretion and autonomy as possible

### 7.3 Minimize threats and distractions

Vary the level of sensory stimulation

### 8.1 Heighten salience of goals and objectives

- · Display the goal in multiple ways
- Demonstrate the use of hand-held or computer-based scheduling tools
- Engage learners in assessment discussions of what constitutes excellence and generate relevant examples that connect to their cultural background and interests

# 8.2 Vary demands and resources to optimize challenge

Vary the degrees of freedom for acceptable performance

# S.8 Leverage the floor as a great learning space

### 7.1 Optimize individual choice and autonomy

- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- · Vary the level of novelty or risk
- Vary the level of sensory stimulation
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

# 8.2 Vary demands and resources to optimize challenge

- Provide alternatives in the permissible tools and scaffolds
- Vary the degrees of freedom for acceptable performance

 Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Create expectations for group work

### **Additional Notes:**

By incorporating low style furniture you can formalize the floor as a legitimate workspace – and more successfully invite the teachers to engage (with a low stool to sit on). Many such furniture solutions stimulate the imagination and more readily invite students to reconfigure their setting.

# S.9 Design your negative space

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate. timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- · Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard
- Sometimes these methods should be physical and can require open space

### 5.2 Use multiple tools for construction and composition

### 7.1 Optimize individual choice and autonomy

- · Provide learners with as much discretion and autonomy as possible
- · Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Vary activities and sources of information
- · Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants

- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Vary the level of sensory stimulation
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.3 Foster collaboration and community

· (Consider the space that is needed for collaboration. Negative space is not unused)

# S.10 Student access to tools and resources

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate. timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 4.2 Optimize access to tools and assistive technologies

### 5.1 Use multiple media for communication

- · Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film. music. dance. visual art. sculpture or video
- · Solve problems using a variety of strategies

### 5.2 Use multiple tools for construction and composition

- Use story webs, outlining tools, or concept mapping tools
- · Provide Computer-Aided-Design (CAD), music notation software. or mathematical notation software
- Use web applications (e.g., wikis, animation. presentation)

### **5.3 Build fluencies with graduated levels of support** • Vary activities and sources of information for practice and performance

- Provide differentiated models to emulate (i.e. models that demonstrate the same outcomes but use differing approaches, strategies, skills, etc.)
- Provide scaffolds that can be gradually released with increasing independence and skills (e.g., embedded into digital reading and writing software)

### 6.3 Facilitate managing information and resources

 Provide graphic organizers and templates for data collection and organizing information

### 6.4 Enhance capacity for monitoring progress

- Ask questions to quide self-monitoring and reflection
- Show representations of progress (e.g., before and after photos, graphs and charts showing progress over time, process portfolios)

### 7.1 Optimize individual choice and autonomy

- · Provide learners with as much discretion and autonomy as possible
- · Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom
- · Vary the level of novelty or risk
- Vary the level of sensory stimulation
- · Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.2 Vary demands and resources to optimize challenge

- Provide alternatives in the permissible tools and scaffolds
- · Vary the degrees of freedom for acceptable performance
- Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals. roles, and responsibilities
- · Provide prompts that guide learners in when and how to ask peers and/or teachers for help
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)

### 9.2 Facilitate personal coping skills and strategies

### Additional Notes:

Allowing students to have "free" access to resources and places to work is fundamental to developing selfregulated learners. At STEAM Studio, we don't provide 1:1 ratio of supplies per student - resources can be scarce in the real world, and school is a great place to learn the adaptive skills needed to navigate this condition. Clear organizational systems for supplies - students learn skills of self-directed learning when they can access what they need when they need it. Thus, understanding where things go is important to access tools as well as putting things away when finished them.

# S.11 Digital story-telling studio

- 1.1 Offer ways of customizing the display of information
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information
- 3.3 Guide information processing, visualization, and manipulation
- · Provide options for organizational methods and approaches
- · Provide multiple entry points to a lesson and optional pathways through content (e.g., exploring big ideas through dramatic works, arts and literature, film and
- 4.1 Vary the methods for response and navigation
- Provide alternatives in the requirements for rate. timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- · Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 4.2 Optimize access to tools and assistive technologies

### 5.1 Use multiple media for communication

- · Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film. • music, dance, visual art, sculpture or video
- Solve problems using a variety of strategies

### 5.2 Use multiple tools for construction and composition

- Use story webs, outlining tools, or concept mapping
- Provide Computer-Aided-Design (CAD), music notation software, or mathematical notation software
- Use web applications (e.g., wikis, animation. presentation)

### 7.1 Optimize individual choice and autonomy

 Provide learners with as much discretion and autonomy as possible

### 7.2 Optimize relevance, value, and authenticity

Vary activities and sources of information

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation. exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

# 8.2 Vary demands and resources to optimize

· Provide alternatives in the permissible tools and scaffolds

### 8.3 Foster collaboration and community

- · Create cooperative learning groups with clear goals, roles, and responsibilities
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

# 9.1 Promote expectations and beliefs that optimize

- Increasing the length of on-task orientation in the face of distractions
- Elevating the frequency of self-reflection and selfreinforcements

# S.12 Make student thinking and creativity visible in multiple mediums

- 1.1 Offer ways of customizing the display of information 4.2 Optimize access to tools and assistive technologies
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information
- 3.3 Guide information processing, visualization, and manipulation
- · Provide options for organizational methods and
- · Provide interactive models that guide exploration and new understandings
- Provide multiple entry points to a lesson and optional pathways through content (e.g., exploring big ideas through dramatic works, arts and literature, film and media) 5.3 Build fluencies with graduated levels of support for

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate, timing. speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- · Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

- Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
- Solve problems using a variety of strategies

5.1 Use multiple media for communication

### 5.2 Use multiple tools for construction and composition

- · Use story webs, outlining tools, or concept mapping tools
- Provide Computer-Aided-Design (CAD), music notation software, or mathematical notation software
- Use web applications (e.g., wikis, animation, presentation)

# practice and performance

- · Provide differentiated models to emulate (i.e. models that demonstrate the same outcomes but use differing approaches, strategies, skills, etc.)
- Provide multiple examples of novel solutions to authentic
   8.2 Vary demands and resources to optimize challenge

### 6.4 Enhance capacity for monitoring progress

Provide differentiated models of self-assessment

7.1 Optimize individual choice and autonomy

Provide learners with as much discretion and autonomy as
 Create cooperative learning groups with clear goals, roles,

strategies (e.g., role-playing, video reviews, peer feedback)

### 7.2 Optimize relevance, value, and authenticity

- · Vary activities and sources of information
- Provide tasks that allow for active participation, exploration and experimentation

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- · Vary the level of novelty or risk
- Vary the level of sensory stimulation
- · Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

- Provide alternatives in the permissible tools and scaffolds
- · Vary the degrees of freedom for acceptable performance
- Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and

### 8.3 Foster collaboration and community

- and responsibilities
- · Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- · Construct communities of learners engaged in common interests or activities
- Create expectations for group work

### 9.2 Facilitate personal coping skills and strategies

Provide differentiated models, scaffolds and feedback

### Additional Notes:

competition

- · Studies indicate that confidence to learn challenging tasks increases when learners sense there is more than one pathway to competence.
- · Choice of processes improves engagement and motivation
- Develop/promote skills in cognitive flexibility- if one approach isn't working, consider alternative processes. This approach helps foster creativity while developing grit and perseverance.

# S.13 Student agency aids in creative mindsets

### 3.3 Guide information processing, visualization, and 7.3 Minimize threats and distractions manipulation

 Provide options for organizational methods and approaches

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate. timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- · Provide alternatives for physically interacting with materials

### 7.1 Optimize individual choice and autonomy

- · Provide learners with as much discretion and autonomy as possible
- · Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Provide tasks that allow for active participation. exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

- · Create an accepting and supportive classroom climate
- Vary the level of novelty or risk
- · Vary the level of sensory stimulation
- · Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.2 Vary demands and resources to optimize challenge

- · Provide alternatives in the permissible tools and
- Vary the degrees of freedom for acceptable
- · Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- · Create cooperative learning groups with clear goals, roles, and responsibilities
- Provide prompts that guide learners in when and how to ask peers and/or teachers for help

- · Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- Create expectations for group work

### 9.1 Promote expectations and beliefs that optimize motivation

 Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

· Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

# S.14 Varied spaces for varied team sizes and goals

- 1.1 Offer ways of customizing the display of information
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate. timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- · Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 4.2 Optimize access to tools and assistive technologies

### 5.1 Use multiple media for communication

- · Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
- Solve problems using a variety of strategies

### 7.1 Optimize individual choice and autonomy

- · Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Vary activities and sources of information
- Provide tasks that allow for active participation. exploration and experimentation

### 7.3 Minimize threats and distractions

 Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals. roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)

- Construct communities of learners engaged in common interests or activities
- Create expectations for group work

### 9.1 Promote expectations and beliefs that optimize motivation

· Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

· Provide differentiated models, scaffolds and feedback

# S.15 Engage with any surface

- 1.1 Offer ways of customizing the display of information
- 1.3 Offer alternatives for visual information
- 3.3 Guide information processing, visualization, and manipulation
- Provide options for organizational methods and approaches
- Provide interactive models that guide exploration and new understandings
- 3.4 Maximize transfer and generalization
- Provide checklists, organizers, sticky notes, electronic reminders
- 4.1 Vary the methods for response and navigation
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard
- 4.2 Optimize access to tools and assistive technologies
- 5.1 Use multiple media for communication
- Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design,

- film, music, dance, visual art, sculpture or video
- · Solve problems using a variety of strategies

# 5.2 Use multiple tools for construction and composition

- Use story webs, outlining tools, or concept mapping tools
- 7.1 Optimize individual choice and autonomy
- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks
- 8.1 Heighten salience of goals and objectives
- Display the goal in multiple ways
- Demonstrate the use of hand-held or computer-based scheduling tools
- 8.2 Vary demands and resources to optimize challenge
- Provide alternatives in the permissible tools and scaffolds
- Vary the degrees of freedom for acceptable performance

 Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

### 9.3 Develop self-assessment and reflection

 Offer devices, aids, or charts to assist individuals in learning to collect, chart and display data from their own behavior for the purpose of monitoring changes in those behaviors

# S.16 Real world learning via living laboratories

- 1.1 Offer ways of customizing the display of information
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information
- 3.1 Activate or supply background knowledge
- Make explicit cross-curricular connections (e.g., teaching literacy strategies in the social studies classroom)
- 3.3 Guide information processing, visualization, and manipulation
- Provide interactive models that guide exploration and new understandings
- Provide multiple entry points to a lesson and optional pathways through content (e.g., exploring big ideas through dramatic works, arts and literature, film and media)

- 4.1 Vary the methods for response and navigation
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard
- 4.2 Optimize access to tools and assistive technologies
- 5.1 Use multiple media for communication
- Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
- · Solve problems using a variety of strategies
- 5.2 Use multiple tools for construction and composition
- Use story webs, outlining tools, or concept mapping tools
- 5.3 Build fluencies with graduated levels of support for practice and performance
- Provide multiple examples of novel solutions to authentic problems

- 7.2 Optimize relevance, value, and authenticity
- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways
- 8.1 Heighten salience of goals and objectives
- Engage learners in assessment discussions of what constitutes excellence and generate relevant examples that connect to their cultural background and interests
- 8.2 Vary demands and resources to optimize challenge
- Provide alternatives in the permissible tools and scaffolds
- Vary the degrees of freedom for acceptable performance

 Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports
- · Create expectations for group work

# S.17 Integrate natural design principles for wellness

### 7.3 Minimize threats and distractions

· Create an accepting and supportive classroom climate

# 9.1 Promote expectations and beliefs that optimize motivation

- Increasing the length of on-task orientation in the face of distractions
- Elevating the frequency of self-reflection and selfreinforcements
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

# S.18 Wake up student senses

- 1.1 Offer ways of customizing the display of information
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information
- 2.4 Promote understanding across languages
- 3.2 Highlight patterns, critical features, big ideas, and relationships
- 3.3 Guide information processing, visualization, and manipulation
- 5.2 Use multiple tools for construction and composition

# 8.2 Vary demands and resources to optimize challenge

- Provide alternatives in the permissible tools and scaffolds
- Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

# S.19 Tie learning to natural systems

- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information
- 2.4 Promote understanding across languages
- 3.2 Highlight patterns, critical features, big ideas, and relationships
- Use multiple examples and non-examples to emphasize critical features
- 4.1 Vary the methods for response and navigation
- Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard
- 5.3 Build fluencies with graduated levels of support for practice and performance
- Provide differentiated models to emulate (i.e. models that demonstrate the same outcomes but use differing approaches, strategies, skills, etc.)

- Provide multiple examples of novel solutions to authentic problems
- 7.1 Optimize individual choice and autonomy
- Provide learners with as much discretion and autonomy as possible

### 7.2 Optimize relevance, value, and authenticity

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- 8.2 Vary demands and resources to optimize challenge
- Provide alternatives in the permissible tools and scaffolds

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- Create expectations for group work

# 9.1 Promote expectations and beliefs that optimize motivation

- Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration
- Increasing the length of on-task orientation in the face of distractions
- Elevating the frequency of self-reflection and selfreinforcements
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

### Additional Notes:

 The primary aspect of this idea is to prioritize the value and relevancy of collaboration across disciplines

 to understand how networks and systems are increasingly interacting in today's complex world.

# S.20 Teach stewardship via building science

- 1.1 Offer ways of customizing the display of information
- 2.4 Promote understanding across languages
- 3.1 Activate or supply background knowledge
- Make explicit cross-curricular connections (e.g., teaching literacy strategies in the social studies classroom)
- 3.2 Highlight patterns, critical features, big ideas, and relationships
- Use multiple examples and non-examples to emphasize critical features
- Use cues and prompts to draw attention to critical features
- 3.3 Guide information processing, visualization, and manipulation
- Provide interactive models that guide exploration and new understandings
- Provide multiple entry points to a lesson and optional pathways through content

# 5.2 Use multiple tools for construction and composition

### 7.2 Optimize relevance, value, and authenticity

 Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants

### 8.3 Foster collaboration and community

Construct communities of learners engaged in common interests or activities

# S.21 Playgrounds as outdoor learning spaces

### 1.2 Offer alternatives for auditory information

### 1.3 Offer alternatives for visual information

# 3.2 Highlight patterns, critical features, big ideas, and relationships

- Use multiple examples and non-examples to emphasize critical features
- Use cues and prompts to draw attention to critical features

# 3.3 Guide information processing, visualization, and manipulation

- Provide options for organizational methods and approaches
- Provide interactive models that guide exploration and new understandings
- Provide multiple entry points to a lesson and optional pathways through content
- Remove unnecessary distractions unless they are essential to the instructional goal

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate,
   timing, speed, and range of motor action required to
   interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, or joystick

# 4.2 Optimize access to tools and assistive technologies

### 5.1 Use multiple media for communication

Solve problems using a variety of strategies

# 5.2 Use multiple tools for construction and composition

Provide virtual or concrete mathematics manipulatives

### 7.1 Optimize individual choice and autonomy

- Provide learners with as much discretion and autonomy as possible.
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Vary activities and sources of information
- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- Vary the level of novelty or risk
- · Vary the level of sensory stimulation

### 8.1 Heighten salience of goals and objectives

Display the goal in multiple ways

# 8.2 Vary demands and resources to optimize challenge

Provide alternatives in the permissible tools and scaffolds

- Vary the degrees of freedom for acceptable performance
- Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Provide prompts that guide learners in when and how to ask peers and/or teachers for help
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

### 9.2 Facilitate personal coping skills and strategies

Provide differentiated models, scaffolds and feedback for:

# S.22 Pitch space

### 1.2 Offer alternatives for auditory information

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, single switch, joystick, keyboard, or adapted keyboard

### 5.1 Use multiple media for communication

- Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance/movement, visual art, sculpture or video
- Solve problems using a variety of strategies

### 6.2 Support planning and strategy development

 Embed prompts to "show and explain your work" (e.g., portfolio review, art critiques)

### 6.4 Enhance capacity for monitoring progress

 Provide differentiated models of self-assessment strategies (e.g., role-playing, video reviews, peer feedback)

### 7.2 Optimize relevance, value, and authenticity

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

 Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.1 Heighten salience of goals and objectives

- Prompt or require learners to explicitly formulate or restate goal
- Engage learners in assessment discussions of what constitutes excellence and generate relevant examples that connect to their cultural background and interests

# 8.2 Vary demands and resources to optimize challenge

- Provide alternatives in the permissible tools and scaffolds
- Vary the degrees of freedom for acceptable performance
- Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

 Create cooperative learning groups with clear goals, roles, and responsibilities

- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- · Create expectations for group work

# S.23 Shelter and refuge spaces

- 1. Provide options for perception
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information
- 3.4 Maximize transfer and generalization
- Provide checklists, organizers, sticky notes, electronic reminders
- 4. Provide options for physical interaction
- 4.1 Vary the methods for response and navigation
- Provide alternative for auditorily responding or indicating selections
- Provide options for alternative auditory processing methods
- 6.3 Facilitate managing information and resources
- 7.1 Optimize individual choice and autonomy
- Allow learners to participate in the design of classroom activities and academic tasks

- 7.2 Optimize relevance, value, and authenticity
- Invite personal response, evaluation, and selfreflection
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways
- 7.3 Minimize threats and distractions
- Create an accepting and supportive classroom climate
- Vary the level of sensory stimulation variation in the presence of background noise or visual stimulation, noise buffers, number of features, or items presented at this time
- Vary the social demands required for learning or performance
- 9. Provide options for self-regulation
- 9.1 Promote expectations and beliefs that optimize motivation
- Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration
- Elevating the frequency of self-reflection and selfreinforcements

- Support activities that encourage self-reflection and identification of personal goals
- 9.2 Facilitate personal coping skills and strategies
- Developing internal controls and coping skills

# S.24 Student check-in zone

### 3 Provide options for comprehension

### 3.1 Activate or supply background knowledge

- Use student check-ins as a means to check alignment with students' relevant prior knowledge
- Make explicit cross-curricular connections (e.g., teaching literacy strategies in the social studies classroom)

### 3.4 Maximize transfer and generalization

- Provide checklists, organizers, sticky notes, electronic reminders
- 5.1 Use multiple media for communication
- Utilize student check-ins as an alternative 1:1 mode of student-centered communication
- 6.1 Guide appropriate goal-setting
- Provide guides and checklists for scaffolding goalsetting
- Post goals, objectives, and schedules in an obvious place

- 6.2 Support planning and strategy development
- 6.3 Facilitate managing information and resources
- Provide graphic organizers and templates for data collection and organizing information

### 6.4 Enhance capacity for monitoring progress

- Ask guestions to guide self-monitoring and reflection
- Show representations of progress (e.g., before and after photos, graphs and charts showing progress over time, process portfolios)
- Provide differentiated models of self-assessment strategies (e.g., role-playing, video reviews, peer feedback)

### 7.3 Minimize threats and distractions

Create an accepting and supportive classroom climate

### 8.1 Heighten salience of goals and objectives

 Engage learners in assessment discussions of what constitutes excellence and generate relevant examples that connect to their cultural background and interests

# 8.2 Vary demands and resources to optimize challenge

 Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.4 Increase mastery-oriented feedback

- Provide feedback that encourages perseverance, focuses on development of efficacy and selfawareness, and encourages the use of specific supports and strategies in the face of challenge
- Provide feedback that emphasizes effort, improvement, and achieving a standard rather than on relative performance
- · Provide feedback that is frequent, timely, and specific
- Provide feedback that is substantive and informative
- rather than comparative or competitive
- Provide feedback that models how to incorporate evaluation, including identifying patterns of errors and wrong answers, into positive strategies for future success

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

# S.25 Trauma-informed learning design

### 1.2 Offer alternatives for auditory information

### 1.3 Offer alternatives for visual information

# 3.3 Guide information processing, visualization, and manipulation

 Provide multiple entry points to a lesson and optional pathways through content (e.g., exploring big ideas through dramatic works, arts and literature, film and media)

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials

### 6.1 Guide appropriate goal-setting

- Provide guides and checklists for scaffolding goalsetting
- Post goals, objectives, and schedules in an obvious place

### 6.4 Enhance capacity for monitoring progress

 Provide differentiated models of self-assessment strategies (e.g., role-playing, video reviews, peer feedback)

### 7.1 Optimize individual choice and autonomy

Provide learners with as much discretion and autonomy as possible

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- · Vary the level of novelty or risk
- · Vary the level of sensory stimulation
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

# 8.2 Vary demands and resources to optimize challenge

# 9.1 Promote expectations and beliefs that optimize motivation

 Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration

- Increasing the length of on-task orientation in the face of distractions
- Elevating the frequency of self-reflection and self-reinforcements
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

### 9.3 Develop self-assessment and reflection

 Offer devices, aids, or charts to assist individuals in learning to collect, chart and display data from their own behavior for the purpose of monitoring changes in those behaviors

# S.26 Transparency to enhance community

- 1.1 Offer ways of customizing the display of information
- 1.3 Offer alternatives for visual information
- 4.2 Optimize access to tools and assistive technologies

### 7.2 Optimize relevance, value, and authenticity

Vary activities and sources of information

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.3 Foster collaboration and community

 Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)

- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

# S.27 Inclusive mindset in design

- 1.1 Offer ways of customizing the display of information
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information
- 4.1 Vary the methods for response and navigation
- Provide alternatives for physically interacting with materials
- 5.1 Use multiple media for communication
- · Solve problems using a variety of strategies
- 5.2 Use multiple tools for construction and composition
- 7.1 Optimize individual choice and autonomy
- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks
- 7.3 Minimize threats and distractions
- · Create an accepting and supportive classroom climate

- · Vary the level of novelty or risk
- · Vary the level of sensory stimulation
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports
- Construct communities of learners engaged in common interests or activities
- Create expectations for group work
- 9.1 Promote expectations and beliefs that optimize motivation
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

# S.28 Trust-building spaces and environments

- 1.1 Offer ways of customizing the display of information
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information
- 2.4 Promote understanding across languages
- 7.1 Optimize individual choice and autonomy
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

# 8.2 Vary demands and resources to optimize challenge

- Vary the degrees of freedom for acceptable performance
- Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

# 9.1 Promote expectations and beliefs that optimize motivation

• Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

# S.29 Peer mentoring

- 2.4 Promote understanding across languages
- 4.1 Vary the methods for response and navigation
- 6.3 Facilitate managing information and resources

### 6.4 Enhance capacity for monitoring progress

 Provide differentiated models of self-assessment strategies (e.g., role-playing, video reviews, peer feedback)

### 7.2 Optimize relevance, value, and authenticity

- Vary activities and sources of information
- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

Create an accepting and supportive classroom climate

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Provide prompts that guide learners in when and how to ask peers and/or teachers for help
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

### 8.4 Increase mastery-oriented feedback

 Provide feedback that encourages perseverance, focuses on development of efficacy and selfawareness, and encourages the use of specific supports and strategies in the face of challenge

# 9.1 Promote expectations and beliefs that optimize motivation

- Elevating the frequency of self-reflection and selfreinforcements
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and iudgments of "natural" aptitude

# S.30 Space for sharing

### 2.4 Promote understanding across languages

# 3.3 Guide information processing, visualization, and manipulation

- Provide multiple entry points to a lesson and optional pathways through content (e.g., exploring big ideas through dramatic works, arts and literature, film and media)
- 4.1 Vary the methods for response and navigation

### 7.2 Optimize relevance, value, and authenticity

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation

### 7.3 Minimize threats and distractions

· Create an accepting and supportive classroom climate

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports
- Construct communities of learners engaged in common interests or activities
- Create expectations for group work

# 9.1 Promote expectations and beliefs that optimize motivation

- Elevating the frequency of self-reflection and self-reinforcements
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

### 9.3 Develop self-assessment and reflection

# S.31 Tranquility/recharge space

- 1.1 Offer ways of customizing the display of information
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials
- 6.1 Guide appropriate goal-setting
- 6.4 Enhance capacity for monitoring progress

### 7.1 Optimize individual choice and autonomy

- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.3 Minimize threats and distractions

- · Create an accepting and supportive classroom climate
- · Vary the level of novelty or risk
- · Vary the level of sensory stimulation
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

# 9.1 Promote expectations and beliefs that optimize motivation

- Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration
- Elevating the frequency of self-reflection and self-reinforcements
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

### 9.3 Develop self-assessment and reflection

# S.32 Academic hub

### 3.1 Activate or supply background knowledge

- Use student check-ins as a means to check alignment with students' relevant prior knowledge
- 4.2 Optimize access to tools and technologies

### 6.4 Enhance capacity for monitoring progress

 Provide differentiated models of self-assessment strategies (e.g., role-playing, video reviews, peer feedback)

### 8.3 Foster collaboration and community

- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities

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# EDUCATOR EXPERIENCES

# E.1 Reflect your classroom purpose and values

### 7.1 Optimize individual choice and autonomy

- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.3 Minimize threats and distractions

· Create an accepting and supportive classroom climate

### 8.3 Foster collaboration and community

Construct communities of learners engaged in common interests or activities

# 9.1 Promote expectations and beliefs that optimize motivation

- Elevate the frequency of self-reflection and selfreinforcements
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

· Provide differentiated models, scaffolds and feedback

# **E.2 Faculty collaboration studio**

### 3.1 Activate or supply background knowledge

 Make explicit cross-curricular connections (e.g., teaching literacy strategies in the social studies classroom)

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

# 9.1 Promote expectations and beliefs that optimize motivation

Support activities that encourage self-reflection and identification of personal goals

# E.3 Faculty "scrum space"

### 3.1 Activate or supply background knowledge

- Make explicit cross-curricular connections
- 6.2 Support planning and strategy development

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports

### 9.2 Facilitate personal coping skills and strategies

· Provide differentiated models, scaffolds and

### **Additional Notes:**

Space for faculty to collaborate can help educators develop new methods and improve existing methods of providing more access for students of all variability is transferrable across the entire set of UDL Guidelines.

# E.4 Informal space to share and reflect

### 3.1 Activate or supply background knowledge

- Use student check-ins as a means to check alignment with students' relevant prior knowledge
- 6.2 Support planning and strategy development
- 6.4 Enhance capacity for monitoring progress

### 7.3 Minimize threats and distractions

- · Create an accepting and supportive classroom climate
- Vary the social demands and impacts of learning performance and assessment

### 8.4 Increase mastery-oriented feedback

- · Provide feedback that is frequent, timely, and specific
- 9.1 Promote expectations and beliefs that optimize motivation
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

# E.5 Learning prototype studio

### 3.1 Activate or supply background knowledge

· Make explicit cross-curricular connections

### 6.2 Support planning and strategy development

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports

### 9.2 Facilitate personal coping skills and strategies

### Additional Notes:

A Learning Prototype Studio is a testing bed to apply methods supporting any of the UDL Guidelines and test efficacy of various strategies without making firm commitments and investments within any other learning environments until the approach is better validated.

# E.6 Think of classroom as a "stage set"

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

# 5.2 Use multiple tools for construction and composition

### 7.1 Optimize individual choice and autonomy

- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation

 Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- · Create an accepting and supportive classroom climate
- · Vary the level of novelty or risk
- · Vary the level of sensory stimulation
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

# 8.2 Vary demands and resources to optimize challenge

Provide alternatives in the permissible tools and scaffolds

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports

- Construct communities of learners engaged in common interests or activities
- Create expectations for group work

# E.7 Make space within space

### 1.3 Offer alternatives for visual information

 (Supporting sound sensitive and easily distracted learners can be enhanced by reducing the scale of an individual's learning spaces within the overall classroom, visual disruptions without separating or isolating the learner.)

### 7.1 Optimize individual choice and autonomy

Provide learners with as much discretion and autonomy as possible

### 7.2 Optimize relevance, value, and authenticity

- Vary activities and sources of information
- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- · Vary the level of sensory stimulation

 Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

# 9.1 Promote expectations and beliefs that optimize motivation

- Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

# E.8 Review spatial power dynamics

### 2.4 Promote understanding across languages

### 7.1 Optimize individual choice and autonomy

Provide learners with as much discretion and autonomy as possible

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.3 Foster collaboration and community

- Encourage and support opportunities for peer interactions and supports
- · Create expectations for group work

### 8.4 Increase mastery-oriented feedback

 (Creating a culture where the teacher is a guide on the side creates an environment where the teacher more frequently checks-in on student progress and provides real-time feedback to support mastery-based learning.)

# 9.1 Promote expectations and beliefs that optimize motivation

- Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration
- (Providing more autonomy among learners has shown a positive effect of development of self-regulated behaviors)

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

# E.9 Tell your story

- 1.1 Offer ways of customizing the display of information
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information

### 5.1 Use multiple media for communication

- Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
- Solve problems using a variety of strategies

# 5.2 Use multiple tools for construction and composition

Use story webs, outlining tools, or concept mapping tools

### 7.2 Optimize relevance, value, and authenticity

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation

### 8.1 Heighten salience of goals and objectives

 Engage learners in assessment discussions of what constitutes excellence and generate relevant examples that connect to their cultural background and interests

# 8.2 Vary demands and resources to optimize challenge

 Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

# 9.1 Promote expectations and beliefs that optimize motivation

Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for appropriately handling subject specific phobias and judgments of "natural" aptitude

### 9.3 Develop self-assessment and reflection

 Offer devices, aids, or charts to assist individuals in learning to collect, chart and display data from their own behavior for the purpose of monitoring changes in those behaviors

### **Additional Notes:**

- According to research by Cathy Davidson in her book "Now You See It," students worked much harder on papers when they knew it would published and read by more people than just their teacher.
- According to Larry Rosenstock, founder of High Tech High, the incentive of public exhibition night causes students to work much harder than they would work for just a grade.

# E10 Do it yourself – hack your space

### 4.2 Optimize access to tools and resources

### 7.1 Optimize individual choice and autonomy

 Allow learners to participate in the design of classroom activities and academic tasks

### 7.3 Minimize threats and distractions

· Create an accepting and supportive classroom climate

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Construct communities of learners engaged in common interests or activities
- Create expectations for group work
- 9.1 Promote expectations and beliefs that optimize motivation

# E.11 Audio/acoustics for wellness

- 1. Provide options for perception
- 1.2 Offer alternatives for auditory information
- 4. Provide options for physical action

### 4.1 Vary the methods for response and navigation

- Provide alternatives for auditorily responding or indicating selections
- Provide access to alternative auditory processing methods
- 4.2 Optimize access to tools and assistive technologies

### 5.1 Use multiple media for communication

- Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
- 7. Provide options for recruiting interest

### 7.1 Optimize individual choice and autonomy

Provide learners with as much discretion and autonomy as possible

### 7.2 Optimize relevance, value, and authenticity

- Invite personal response, evaluation, and self reflection
- · Vary activities and sources of information
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- · Create an accepting and supportive classroom climate
- · Vary the level of novelty or risk
- Vary the level of sensory stimulation
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.
- 9. Provide options for self-regulation

### 9.2 Facilitate personal coping skills and strategies

· Develop internal controls and coping skills

# PARADIGMS & SCHOOL CULTURE

# P.1 School as a community resource

### 2.4 Promote understanding across languages

### 7.3 Minimize threats and distractions

· Create an accepting and supportive school climate

### 8.3 Foster collaboration and community

Construct communities of learners engaged in common interests or activities

# 9.1 Promote expectations and beliefs that optimize motivation

- Additional Note: When parents and family members are more engaged in their students' education, there are heightened expectations and more concerted cultivation outside the classroom.
- When a community is invited into a school, children can better feel a sense of belonging and safety as opposed to a world they have to navigate on their own.

# P.2 Engage family members with hospitality

### 7.3 Minimize threats and distractions

- · Create an accepting and supportive classroom climate
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

# 8.2 Vary demands and resources to optimize challenge

### 8.3 Foster collaboration and community

- Encourage and support opportunities for peer interactions and supports
- Construct communities of learners engaged in common interests or activities
- 9.1 Promote expectations and beliefs that optimize motivation

# P.3 Showcase community successes

### 7.2 Optimize relevance, value, and authenticity

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

 Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

# P.4 Defeat the stigma of school - create a safe culture to dream

### 7.1 Optimize individual choice and autonomy

- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

· Create an accepting and supportive classroom climate

# 9.1 Promote expectations and beliefs that optimize motivation

Support activities that encourage self-reflection and identification of personal goals

# P.5 Celebrate cultural diversity within your school

- 1.1 Offer ways of customizing the display of information
- 1.2 Offer alternatives for auditory information
- 1.3 Offer alternatives for visual information
- 2.4 Promote understanding across languages
- 3.1 Activate or supply background knowledge
- Make explicit cross-curricular connections (e.g., teaching literacy strategies in the social studies classroom)
- 4.1 Vary the methods for response and navigation
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard
- 4.2 Optimize access to tools and resources
- 5.1 Use multiple media for communication
- Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
- · Solve problems using a variety of strategies

# 5.2 Use multiple tools for construction and composition

- Use story webs, outlining tools, or concept mapping tools
- Use web applications (e.g., wikis, animation, presentation)

### 7.1 Optimize individual choice and autonomy

- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Construct communities of learners engaged in common interests or activities

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

### 9.3 Develop self-assessment and reflection

 Offer devices, aids, or charts to assist individuals in learning to collect, chart and display data from their own behavior for the purpose of monitoring changes in those behaviors

# P.6 Create a "maker ethos" throughout the school

- 2.4 Promote understanding across languages
- 3.3 Guide information processing, visualization, and manipulation
- Provide interactive models that guide exploration and new understandings
- 4.1 Vary the methods for response and navigation
- Provide alternatives for physically interacting with materials
- 5.2 Use multiple tools for construction and composition
- Use story webs, outlining tools, or concept mapping tools
- 6.4 Enhance capacity for monitoring progress
- Show representations of progress (e.g., before and after photos, graphs and charts showing progress over time, process portfolios)
- Provide differentiated models of self-assessment strategies (e.g., role-playing, video reviews, peer feedback)

### 7.1 Optimize individual choice and autonomy

- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Vary activities and sources of information
- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- · Vary the level of novelty or risk
- Vary the level of sensory stimulation

 Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

# 8.2 Vary demands and resources to optimize challenge

- Provide alternatives in the permissible tools and scaffolds
- Vary the degrees of freedom for acceptable performance
- Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports
- Construct communities of learners engaged in common interests or activities
- Create expectations for group work

### 9.2 Facilitate personal coping skills and strategies

Provide differentiated models, scaffolds and feedback

# P.7 Connective neighborhoods

# 1.1 Offer ways of customizing the display of information

# 5.3 Build fluencies with graduated levels of support for practice and performance

- · Provide differentiated models to emulate
- Provide scaffolds that can be gradually released with increasing independence and skills

### 6.1 Guide appropriate goal-setting

### 7.1 Optimize individual choice and autonomy

Provide learners with as much discretion and autonomy as possible

### 7.2 Optimize relevance, value, and authenticity

- Vary activities and sources of information
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

· Create an accepting and supportive classroom climate

# 8.2 Vary demands and resources to optimize challenge

- Provide alternatives in the permissible tools and scaffolds
- Vary the degrees of freedom for acceptable performance

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- Create expectations for group work

# P.8 Library as the heart of the community

- 1.1 Offer ways of customizing the display of information
- 1.3 Offer alternatives for visual information
- 2.4 Promote understanding across languages

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard
- 4.2 Optimize access to tools and resources

### 5.1 Use multiple media for communication

- Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
- · Solve problems using a variety of strategies

- 5.2 Use multiple tools for construction and composition
- Use story webs, outlining tools, or concept mapping tools
- Provide Computer-Aided-Design (CAD), music notation software, or mathematical notation software
- Use web applications (e.g., wikis, animation, presentation)

### 7.2 Optimize relevance, value, and authenticity

 Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants

# 8.2 Vary demands and resources to optimize challenge

Provide alternatives in the permissible tools and scaffolds

### 8.3 Foster collaboration and community

 Create cooperative learning groups with clear goals, roles, and responsibilities Construct communities of learners engaged in common interests or activities

# P.9 Library as "kitchen" vs. library as "grocery store"

### 3.1 Activate or supply background knowledge

- with students' relevant prior knowledge
- Make explicit cross-curricular connections (e.g., teaching literacy strategies in the social studies classroom)

### 3.2 Highlight patterns, critical features, big ideas. and relationships

· Use multiple examples and non-examples to emphasize critical features

### 4.1 Vary the methods for response and navigation

- · Provide alternatives in the requirements for rate. timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 4.2 Optimize access to tools and assistive technologies

### 5.1 Use multiple media for communication

- Use student check-ins as a means to check alignment
   Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
  - · Solve problems using a variety of strategies

### 5.2 Use multiple tools for construction and composition

- Use story webs, outlining tools, or concept mapping tools
- Provide Computer-Aided-Design (CAD), music notation software, or mathematical notation software
- Use web applications (e.g., wikis, animation. presentation)

### 6.3 Facilitate managing information and resources

### 7.1 Optimize individual choice and autonomy

· Provide learners with as much discretion and autonomy as possible

### 7.2 Optimize relevance, value, and authenticity

Vary activities and sources of information

- · Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation. exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- · Vary the level of novelty or risk
- · Vary the level of sensory stimulation
- · Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.2 Vary demands and resources to optimize challenge

- Provide alternatives in the permissible tools and
- · Vary the degrees of freedom for acceptable performance

 Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- · Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Create expectations for group work

# P.10 Convert STEM to STEAM for improved accessibility

### 4.1 Vary the methods for response and navigation

- · Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 5.1 Use multiple media for communication

- · Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
- Solve problems using a variety of strategies

### 5.2 Use multiple tools for construction and composition

- · Use story webs, outlining tools, or concept mapping
- Provide Computer-Aided-Design (CAD), music notation software. or mathematical notation software

### 5.3 Build fluencies with graduated levels of support for practice and performance

- Provide differentiated models to emulate (i.e. models) that demonstrate the same outcomes but use differing approaches, strategies, skills, etc.)
- · Provide scaffolds that can be gradually released with increasing independence and skills (e.g., embedded into digital reading and writing software)
- · Provide multiple examples of novel solutions to authentic problems

## 7.1 Optimize individual choice and autonomy

· Provide learners with as much discretion and autonomy as possible

### 7.2 Optimize relevance, value, and authenticity

- · Vary activities and sources of information
- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation. exploration and experimentation

Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- Vary the level of novelty or risk
- · Vary the level of sensory stimulation
- · Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.1 Heighten salience of goals and objectives

· Display the goal in multiple ways

# 8.2 Vary demands and resources to optimize

- Provide alternatives in the permissible tools and
- · Vary the degrees of freedom for acceptable performance

Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Create expectations for group work

### 9.2 Facilitate personal coping skills and strategies

· Provide differentiated models, scaffolds and feedback

# P.11 Engage students in real world problems

### 4.1 Vary the methods for response and navigation

 Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 4.2 Optimize access to tools and resources

### 5.1 Use multiple media for communication

- Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance, visual art, sculpture or video
- · Solve problems using a variety of strategies

# 5.2 Use multiple tools for construction and composition

- Use story webs, outlining tools, or concept mapping tools
- Provide Computer-Aided-Design (CAD), music notation software, or mathematical notation software
- Use web applications (e.g., wikis, animation, presentation)

### 7.1 Optimize individual choice and autonomy

Provide learners with as much discretion and autonomy as possible

 Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 8.1 Heighten salience of goals and objectives

 Engage learners in assessment discussions of what constitutes excellence and generate relevant examples that connect to their cultural background and interests

# 8.2 Vary demands and resources to optimize challenge

- Provide alternatives in the permissible tools and scaffolds
- Vary the degrees of freedom for acceptable performance

 Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- · Create expectations for group work

# 9.1 Promote expectations and beliefs that optimize motivation

 Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

# P.12 Develop for practice of self-regulation

### 3.1 Activate or supply background knowledge

 Use student check-ins as a means to check alignment with students' relevant prior knowledge

### 4.1 Vary the methods for response and navigation

- Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies
- Provide alternatives for physically interacting with materials by hand, voice, joystick or keyboard

### 6.1 Guide appropriate goal-setting

- Provide guides and checklists for scaffolding goal-setting
- Post goals, objectives, and schedules in an obvious place

### 6.2 Support planning and strategy development

- Embed prompts to "stop and think" before acting as well as adequate space
- Embed prompts to "show and explain your work" (e.g., portfolio review, art critiques)

### 6.3 Facilitate managing information and resources

Provide graphic organizers and templates for data collection and organizing information

### 6.4 Enhance capacity for monitoring progress

- Ask questions to guide self-monitoring and reflection
- Show representations of progress (e.g., before and after photos, graphs and charts showing progress over time, process portfolios)

 Provide differentiated models of self-assessment strategies (e.g., role-playing, video reviews, peer feedback)

### 7.1 Optimize individual choice and autonomy

- Provide learners with as much discretion and autonomy as possible
- Allow learners to participate in the design of classroom activities and academic tasks

### 7.2 Optimize relevance, value, and authenticity

- Vary activities and sources of information
- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- Create an accepting and supportive classroom climate
- Vary the level of novelty or risk
- Vary the level of sensory stimulation
- Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation.

### 8.2 Vary demands and resources to optimize challenge

- Provide alternatives in the permissible tools and scaffolds
- Vary the degrees of freedom for acceptable performance

 Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition

### 8.3 Foster collaboration and community

- Create cooperative learning groups with clear goals, roles, and responsibilities
- Provide prompts that guide learners in when and how to ask peers and/or teachers for help
- Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors)
- Construct communities of learners engaged in common interests or activities
- Create expectations for group work

### 8.4 Increase mastery-oriented feedback

- Provide feedback that encourages perseverance, focuses on development of efficacy and self-awareness, and encourages the use of specific supports and strategies in the face of challenge
- Provide feedback that emphasizes effort, improvement, and achieving a standard rather than on relative performance
- Provide feedback that is frequent, timely, and specific
   Provide feedback that is substantive and informative rather than comparative or competitive

# 9.1 Promote expectations and beliefs that optimize motivation

 Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration

- Increasing the length of on-task orientation in the face of distractions
- Elevating the frequency of self-reflection and selfreinforcements
- Support activities that encourage self-reflection and identification of personal goals

### 9.2 Facilitate personal coping skills and strategies

 Provide differentiated models, scaffolds and feedback for managing frustration, seeking external emotional support, developing internal controls and coping skills, and appropriately handling subject specific phobias and judgments of "natural" aptitude

### 9.3 Develop self-assessment and reflection

Offer devices, aids, or charts to assist individuals in learning to collect, chart and display data from their own behavior for the purpose of monitoring changes in those behaviors

# P.13 Use natural materials and patterns

### 1.3 Offer alternatives for visual information

# 3.2 Highlight patterns, critical features, big ideas, and relationships

- Use multiple examples and non-examples to emphasize critical features
- Use cues and prompts to draw attention to critical features

### 7.2 Optimize relevance, value, and authenticity

- Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
- Provide tasks that allow for active participation, exploration and experimentation
- Include activities that foster the use of imagination to solve novel and relevant problems, or make sense of complex ideas in creative ways

### 7.3 Minimize threats and distractions

- · Create an accepting and supportive classroom climate
- Additional note: connections to natural environments are known to help lower heart rate and blood pressure, and increate attention restoration.

### 8.3 Foster collaboration and community

 Additional note: research on nature in learning has shown its effects on reducing behavioral referrals.

# 9.1 Promote expectations and beliefs that optimize motivation

- Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration
- Increasing the length of on-task orientation in the face of distractions
- Elevating the frequency of self-reflection and self-reinforcements
- Support activities that encourage self-reflection and identification of personal goals

# P.14 But we've always done it this way!

Often there are customs and practices that become very entrenched despite their obsolescence. This idea is to challenge you to think about and acknowledge any such customs that are impeding more effective application of UDL principles.

Many of us often find ourselves set on a goal with absolute determination to complete that goal. However, we can often find ourselves in a situation where our efforts to accomplish this goal are meeting diminishing returns. This idea is about reassessing your current practices and consider some fresh approaches.

# deck of s p a c e s™

the idea deck for creating spaces aligned with Universal Design for Learning



# K12 Second Edition Deck of Spaces

# REFERENCE GUIDE

CARD ALIGNMENT AND IDEA GUIDE

