

# **Keystones to Opportunity: Universal Design for Learning**

## **Participant's Packet**

Pennsylvania's Vision for Sustainable Growth  
in Reading Achievement



## **9 Content Modules**

Supporting Learners with Special Needs

Using Data for Literacy Decision-Making

Reading Apprenticeship

Universal Design for Learning

Family Engagement and Family Literacy

Successful Transitions Along the Literacy Continuum

Navigating Content with English Language Learners

The Literacy Design Collaborative

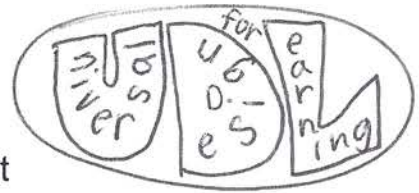
Building Blocks for Literacy

## **Myths/Facts**

- UDL is a special education initiative.
- UDL is synonymous with differentiated instruction.
- Technology is a prerequisite for implementing UDL.
- English Language Learners can benefit from UDL.
- UDL is a framework that supports teaching to the standards for all students.

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## Evidence/ Interpretation Chart

<u>Evidence</u> What I saw, read, heard..	<u>Interpretation</u> What I thought, wondered, was confused by...
<ol style="list-style-type: none"> <li>1 recognizing</li> <li>2 skills + strategies</li> <li>3 caring and</li> </ol> <ul style="list-style-type: none"> <li>- goals</li> <li>- methods</li> <li>- materials</li> <li>- assessments</li> </ul> <ol style="list-style-type: none"> <li>1 representation</li> <li>2 action + expression</li> <li>3 engagement</li> </ol>	<div style="display: flex; align-items: center; justify-content: center;"> <div style="font-size: 4em; margin-right: 20px;">}</div> <div> <p>things to consider to meet needs of learners</p> </div> </div>

(during)

(after)

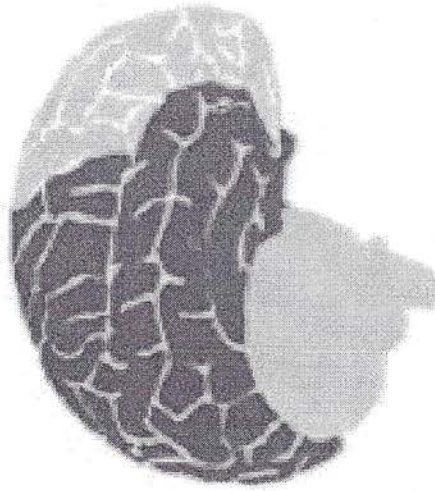


## Universal Design for Learning

3

### Recognition Networks

The "what" of learning



How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.

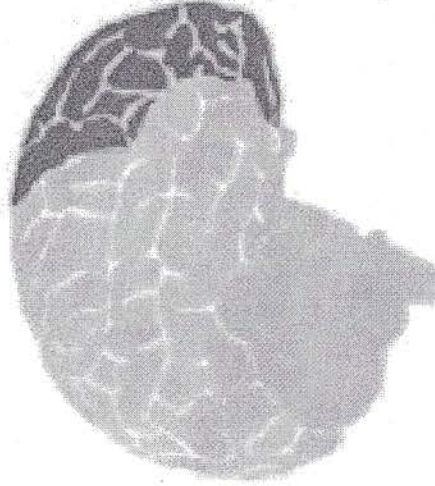


Present information and content in different ways

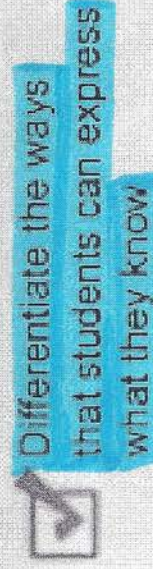
More ways to provide Multiple Means of Representation

### Strategic Networks

The "how" of learning



Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.

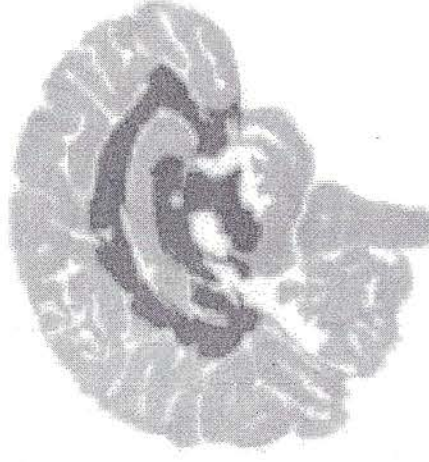


Differentiate the ways that students can express what they know

More ways to provide Multiple Means of Action and Expression

### Affective Networks

The "why" of learning



How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.

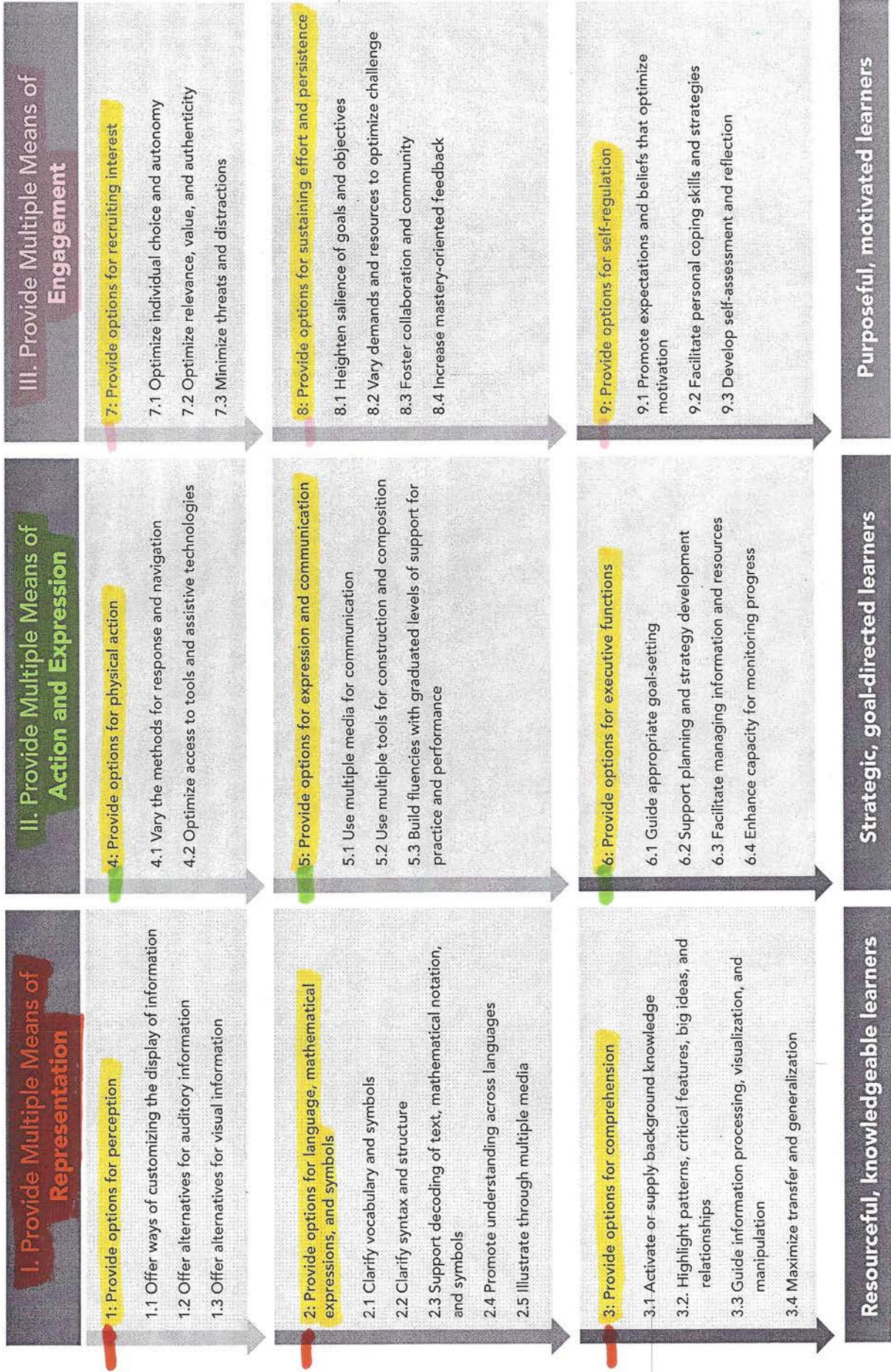


Stimulate interest and motivation for learning

More ways to provide Multiple Means of Engagement



# Universal Design for Learning Guidelines



## Expert Group Graphic Organizer

Define Principle:			
Define Guideline:			
Checkpoint Number	Key words/ Key phrases	Standout Example (2-3)	Classroom Connection



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# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
Multiple Means of Representation		
1. Provide options for perceptions		
1.1 Offer ways of customizing the display of information.		
- digital print is customizable (colors, sizes, read aloud, etc...)	* Readability	→ gets rid of ads, etc...
	* Zen Garden	→ change layout & keep content
	* AIM Explorer	→ customizable (magnify, change colors, layout, T+S, voice + speed...)
	* AIM Navigator	→ includes formats like Braille?, audio, large print, electronic text

# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
<b>1.2 Offer alternatives for auditory information.</b>		
<ul style="list-style-type: none"> <li>- text alternatives (captions, STT voice)</li> <li>- provide visuals (diagrams, charts, notes...)</li> <li>- written transcripts</li> <li>- ASL - visual icons</li> <li>- use vibrations, etc. (effects/alerts)</li> <li>- interpret visually/emotionally</li> </ul>	<ul style="list-style-type: none"> <li>* DCMP - (described + captioned media program)</li> <li>* Windows XP: ShowSounds</li> <li>* Signed Stories</li> </ul>	<ul style="list-style-type: none"> <li>→ uses captions (blind/deaf...)</li> <li>→ tells programs to represent aud. info. visually</li> <li>→ stories signed w/ BSL, read aloud, + has captions</li> </ul>
<b>1.3 Offer alternatives for visual information.</b>		
<ul style="list-style-type: none"> <li>* Images, Graphics, Animations, Videos</li> <li>↳ text or spoken descriptions for images/graphics/video/animations</li> <li>↳ touch equivalents</li> <li>↳ physical objects/spatial models</li> <li>↳ auditory cues for key concepts + transitions in visual info.</li> </ul>	<ul style="list-style-type: none"> <li>* Voki (T+S w/ avatar + variety)</li> <li>* Learning thru Listening</li> <li>* You've Got Braille</li> <li>* CAST's UDL Editions</li> </ul>	<ul style="list-style-type: none"> <li>→ customizable (visual + voice)</li> <li>→ activities, + strategies, + resources...</li> <li>→ translator, key, etc...</li> <li>→ click on word, read def./listen T+S, + visual depictions</li> </ul>
<ul style="list-style-type: none"> <li>* Text (to Audio)</li> <li>↳ allow for competent aide, partner, etc. to read aloud</li> <li>↳ access to T+S software</li> </ul>	<ul style="list-style-type: none"> <li>* Fred's Head from APH</li> <li>* Art: Beyond Sight</li> <li>* WGBH's guide - lines for describing STEM images</li> </ul>	<ul style="list-style-type: none"> <li>→ tips, tutorials, articles, + resources for + by blind or visually impaired people</li> <li>→ info. etc. to help teach art...</li> <li>→ graphs, tables, diagrams, + math equations alternative</li> </ul>

prosody  
touch  
equiv.



# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
2. Provide options for language, mathematical expressions and symbols.		
2.1 Clarify vocabulary and symbols.		
<ul style="list-style-type: none"> <li>- pre-teach</li> <li>- connect to prior know</li> <li>- graphic symbols</li> <li>- highlight terms</li> </ul>	<ul style="list-style-type: none"> <li>* SHAHI</li> <li>* Words from Sesame St. (under resources)</li> </ul>	<ul style="list-style-type: none"> <li>→ visual dictionary</li> </ul>

## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
2.2 Clarify syntax and structure.		
- cognitive load	* Simple English Wikipedia	
2.3 Support decoding of text, mathematical notation, and symbols.		
- ability to decode words + # - consistent exposure	* Click + Speech * Starfall	



## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
2.4 Promote understanding across languages.		
- accessibility to info.	* Applied Language Translation	
- provide alternatives	* Music & Dance	
- embedded visuals		

# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
2.5 Illustrate through multiple media.		
- avoid text, only to present new concepts	* shahi  * Music & Dance	



## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
3. Provide options for comprehension		
3.1 Activate or supply background knowledge.		
- usable knowledge	* Digging for Answers * Using Reading * explore library	-> game

# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
3.2 Highlight patterns, critical features, big ideas, and relationships.		
3.3 Guide information processing, visualization, and manipulation.		

## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
3.4 Maximize transfer and generalization.		



# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
Multiple Means of Action and Expression		
4. Provide options for physical action		
4.1 Vary the methods for response and navigation.		

# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
4.2 Optimize access to tools and assistive technologies.		

## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
5. Provide options for expression and communication		
5.1 Use multiple media for communication.		
- alt. modalities for expression	* Kerproof Teachers	→ kids make drawings
	* Book Builder	→ make + read book (together...)



# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
5.2 Use multiple tools for construction and composition.		
- grammar	* Grammar Checker	→
5.3 Build fluencies with graduated levels of support for practice and performance.		
-	* BookBuilder	

# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
6. Provide options for executive functions		
6.1 Guide appropriate goal-setting.		
<ul style="list-style-type: none"> <li>- exec. functions               <ul style="list-style-type: none"> <li>↳ set longterm goals, strategies, &amp; monitor</li> </ul> </li> <li>- set own goals</li> </ul>	<ul style="list-style-type: none"> <li>* Goal-Setting worksheets (ex: my big 3 goals...)</li> </ul>	

## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
6.2 Support planning and strategy and development.		
<ul style="list-style-type: none"> <li>- cognitive speed bumps (stop + think)</li> </ul>	* Study guides + strategies	→ time mgmt.
6.3 Facilitate managing information and resources.		
<ul style="list-style-type: none"> <li>- limitation of "working memory"</li> <li>- scratch pad to access info.</li> </ul>	<ul style="list-style-type: none"> <li>* Study guide + strategy-</li> <li>* Mind Mapping</li> </ul>	



# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
6.4 Enhance capacity for monitoring progress.		
- create a graph →	→ *	→ shows how to use/make graphs

## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
Multiple Means of Engagement		
7. Provide options for recruiting interest		
7.1 Optimize individual choice and autonomy.		
- engagement / motivation differs  - offer choices	* The Book Adventure	→ st. make own lists

# Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
7.2 Optimize relevance, value, and authenticity.		
- help meet goals - consider variables	* Academics meets Architecture	
7.3 Minimize threats and distractions.		
- create safe space - reduce threats & neg. dis - use routines, alerts, previews	* Sensory Integration Dysfunction * Sensory Processing Disorder	→ handout → handout

- vary sensory input...?



## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
8. Provide options for sustaining effort and persistence		
8.1 Heighten salience of goals and objectives.		
<p>- maintain vision &amp; reward of goal</p> <p>- sustain effort &amp; concentration on it</p> <p>* use rubrics...</p>	<p>* Rubistar or Technology's Rubric Maker</p>	

## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
8.2 Vary demands and resources to optimize challenge.		
<ul style="list-style-type: none"> <li>- scaffold</li> <li>- use diff. ideas</li> </ul>	* Digging for answers	→ game
8.3 Foster collaboration and community.		

## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
<b>8.4 Increase mastery-oriented feedback.</b>		
<b>9. Provide options for self-regulation</b>		
<b>9.1 Promote expectations and beliefs that optimize motivation.</b>		

## Home Group Graphic Organizer

Key Words/Key Phrases	Standout Example (2-3)	Classroom Connections
<b>9.2 Facilitate personal coping skills and strategies.</b>		
<b>9.3 Develop self-assessment and reflection.</b>		



## List of Resources

Tool: Voicethread

URL: [www.voicethread.com](http://www.voicethread.com)

What it is: Upload files such as photos, pdfs, word documents, powerpoints and self-created images

Tool: Today's Meet

URL: <http://todaysmeet.com/>

What it is: An example of a backchannel where participants can interact with one another without disrupting the presenter. Participants use the room to comment and post questions about what they are learning.

Tool: Wall Wisher

URL: <http://wallwisher.com/>

What it is: A quick way to post online sticky notes. Participants can respond to a question or prompt by posting their comments. They can also embed images, music files, videos and documents.

Tool: Public Domain Images and Flickr

URL: <http://www.public-domain-image.com/> and <http://www.flickr.com/>

What it is: Find pictures to use in projects and presentations without worrying about copyright. Make sure to double-check the license for each picture.

Tool: Google Docs

URL: <http://www.docs.google.com>

What it is: Create documents, spreadsheets, presentations and forms online to access documents anywhere with Internet connection. Users can collaborate on the same document.

Tool: Wordsmyth

URL: <http://www.wordsmyth.net/>

What it is: Online dictionary that will define the word, provide synonyms and speak the word to you. Varying levels of difficulty for beginner's, children's and advanced.

Tool: ePals

URL: <http://www.epals.com/>

What it is: Connect and collaborate on projects with classrooms nationally and internationally.

Tool: Blogs

URL: <http://kidblog.org/> ; <http://www.blogger.com>

What it is: An online forum to posts discussions, communicate with peers and parents and showcase student work. Whichever blog you chose, it is important to start a blog where teachers can moderate comments before they are published.

Tool: Make Beliefs Comix

URL: <http://www.makebeliefscomix.com/>

What it is: An online educational comic strip creator for students to express themselves and demonstrate their content knowledge.

Tool: Library of Congress

URL: <http://www.loc.gov/teachers/>

What it is: Provides primary- source documents to use in the classroom

Tool: Noodle Tools

URL: <http://www.noodletools.com/>

What it is: Create an account to store and develop an accurate bibliography

Tool: Natural Readers

URL: <http://www.naturalreaders.com>

What it is: Free text to speech software that can convert word documents, pdfs, websites and emails into speech

Tool: Vocabahead

URL: <http://www.vocabahead.com/>

What it is: Vocabulary support that includes audio, video and provides context

Tool: Wikispaces

URL: <http://www.wikispaces.com>

What it is: An editable web page for teachers to communicate with parents and students on assignments and resources. It could be used for students to collaboratively work on projects and posts discussions.

Tool: Remind 101

URL: <https://www.remind101.com/>

What it is: Free way to text students and parents without sharing phone numbers about upcoming meetings, assignments and assessments.

## Evidence/ Interpretation Chart

<u>Evidence</u> What I saw, read, heard..	<u>Interpretation</u> What I thought, wondered, was confused by...





## From Theory to Practice: UDL "Quick Tips"

Based on *Universal Design for Learning Guidelines* by the Center for Applied Technology (CAST)

Representation	Objectives & Benchmarks	Instructional Materials	Teaching Methods	Assessment Methods
	To provide optimal challenges	To ensure equal access	To provide effective instruction	To accurately measure progress
<b>Key Concept:</b> Present ideas and information in multiple ways  <b>The Neuroscience:</b> "recognition networks"  <b>The Goal:</b> Knowledge building	Describe objectives in ways that are clear and specific	Provide options in the way information is presented	Provide options for building knowledge	Use assessments that accurately measure knowledge development
	When establishing goals and objectives, begin by making a list of the knowledge, skills, and (if applicable) attitudes you want your students to achieve.	Present information in multiple formats, including text, graphics, audio, and video.	Whenever possible, tie new concepts to prior knowledge.	Develop assessments directly from the objectives, even before designing course content.
	Sort the list into two categories: need-to-know (essential) and nice-to-know (important, but not essential).	Make handouts and materials available well in advance of lecture and related class activities.	Provide structure to the material: highlight key concepts and explain how they relate to course objectives.	Consider alternatives to traditional quizzes and exams.
	Differentiate between broadly-stated goals and specific learning objectives	Post lecture outlines (not necessarily complete notes) prior to class, which students can use as a framework for note taking.	Learning is more than a "spectator sport." Make it "active" and participatory.	Provide instructions for assignments both verbally and in writing.
	Objectives should be "SMART": Specific, Measurable, Achievable, Relevant, and Timely.	Create a glossary of terms for your course and link to it from the content pages of your website.	Start each lecture with an outline of material to be covered and conclude each session with a summary of key points.	Monitor the effectiveness of instruction, e.g., "1-minute papers," quick surveys using clickers, mid-semester evaluations, etc.
	Consider the wide range of abilities, backgrounds, and experiences of your students when designing activities and assignments.	Develop a list of frequently asked questions for students.	Use technology to increase and enhance learning opportunities (RamCT discussion and quiz tools, clickers, SmartBoards, etc.).	Provide clear expectations and feedback.
	Develop a syllabus that clearly states policies, procedures, expectations, due dates, and learning objectives.	Design electronic materials to be accessible to a wide range of users and display technologies. Structure materials for easy information access.	Consider representing key concepts graphically as well as verbally.	Create a grading rubric and a set of examples of what constitutes quality work.



<b>Expression</b>	Describe objectives in ways that are measurable and achievable	Create an electronic archive of course materials for student reference.	Consider adopting a "learner-centered" approach to teaching. Structure classes so that students take on multiple roles: facilitator, recorder, presenter, etc.	For writing assignments, allow for drafts and revisions; consider using peer review.
	Set goals and objectives that guide instruction and assessment.	Adopt instructional technologies that help achieve learning opportunities.	Make learning relevant. Draw on real-life examples whenever possible.	
	Define expectations at the beginning of the course so that support services can be arranged if needed.	Provide digital equivalents of all hardcopy handouts.		
	Communicate high expectations for all students, while expressing your willingness to make "appropriate accommodations" for students with disabilities.	Provide options for students to express what they know	Provide options for building skills	Use assessments that measure skill development
<b>Key Concept:</b> Provide students with multiple ways to express their comprehension and mastery of a topic.	Set goals and objectives that guide instruction and assessment.	Consider accepting alternative project formats: oral presentations, videos, newspaper articles, photo essays, radio documentaries, community research, web publications, etc.	Emphasize time on task. Create assignments that require students to practice recalling and utilizing information. Brain research confirms the adage "Practice makes perfect."	Allow students to submit assignments electronically, as appropriate.
	Define expectations at the beginning of the course so that support services can be arranged if needed.	Adopt instructional technologies that increase communication and allow for alternate modes of expression.	Allow students to grasp material in their preferred learning style and at their own pace.	Give prompt, ongoing, and instructive feedback to support learning and self-assessment.
<b>The Neuroscience:</b> "Strategic networks"	Communicate high expectations for all students, while expressing your willingness to make "appropriate accommodations" for students with disabilities.	Provide ample time for online assignments to allow for technical malfunction.	Help students in determine how they learn. Learning styles include visual-linguistic (reading and writing), visual-spatial (graphs and pictures), auditory (listening), or kinesthetic (touching and moving).	
		Require students to find and rate web resources using criteria you've established.	Begin each class with an essential question that you will address throughout the class. Have students answer the question at the end of class.	
<b>The Goal:</b> Skill building			Capture students' attention to pique their interest in the topic.	
			Allow students to work in pairs in labs where physical effort may disadvantage someone with a disability.	



Engagement	Establish objectives that motivate students to learn	Provide options in the ways students can interact with instructional materials	Provide options for building motivation and engagement	Use assessments that accurately measure emotional (attitudinal) development
<b>Key Concept:</b> Tap into students' interests, challenge them appropriately, and motivate them to learn	Become familiar with student resources on campus, including the Office of Resources for Disabled Students, the Assistive Technology Resource Center, the Academic Advancement Center, the Learning Assistance Center, and others.  Invite students (both in writing and aloud) to speak to you if they have learning challenges.	Ensure that examples and content used in class are relevant to people from diverse backgrounds and experiences.  Use online discussion groups to extend "contact time" Set standards for quality.	Create a welcoming class environment. Learn students' names, if possible, and use their names when calling on them. Arrive early to class and greet students as they enter. Stay a few minutes after to take questions.	When applicable, have students explore the meaning and value of their learning experiences to themselves and to society.
<b>The Neuroscience:</b> "Affective networks"	Understand what is and is not an "appropriate accommodation."	Consider recording lectures and posting them as a podcasts.	Encourage greater cooperation among students and contact between students and faculty.	For experiential learning activities, explore growth in the "affective domain" through reflection papers.
<b>The Goal:</b> Attitude building	Consider the professional goals, personal interests, and values of students. Consider student diversity—age, gender, culture, language, and ability—when writing objectives.	Provide captioning or transcripts for videos.  Check for ancillary electronic materials (CD-ROM and web content) to accompany your textbook.  Make a detailed course syllabus available in the department or on the Web prior to the first day of class.	Use technology to increase class communication (clickers, RamCT discussions, etc.).  Create some "energy" during lecture (e.g., humor, anticipation, suspense) to increase attention and recall.	Have students relate new concepts and information to their own lives and the lives of those affected.  Give prompt, ongoing, and instructive feedback to support learning and self-assessment.
			Illustrate abstract concepts with concrete examples. Point to real-life examples from your own experiences and those of the students.	
			Invite guest speakers to share their perspectives on the topic at hand; Use technology to connect them with students via an online discussion.	
			Share your enthusiasm for the topic by citing personal experiences, research results, related news, etc.	
			Offer office hours in flexible formats: face-to-face, email, telephone, etc.	



# How do **you** teach?

**Do you create a learning environment in which...**

**1. ideas and information are represented in multiple ways?**

- ☐ Your course syllabus clearly describes the content and your expectations of the students.
- ☐ You present information in multiple formats (e.g., lecture, text, graphics, audio, video, hands-on exercises).
- ☐ You begin each lecture with an outline of what will be covered.
- ☐ You summarize key points throughout the lecture, and tie these points to the larger course objectives.
- ☐ You post electronic equivalents of paper handouts and required reading assignments in alternative formats such as audio and video.
- ☐ You employ technologies (e.g., i-Clickers, RamCT) that enhance learning.

**2. students can express their comprehension in multiple ways?**

- ☐ You encourage students to demonstrate knowledge and skills in ways other than traditional tests and exams (e.g., written essays, projects, portfolios, journals).
- ☐ Your assessments measure students' achievement of the learning objectives, as they are stated on the syllabus.
- ☐ You incorporate technologies that facilitate class communication and participation.
- ☐ You allow assignments to be submitted electronically.

**3. students have multiple opportunities for engagement?**

- ☐ You express enthusiasm for each topic you teach, and explain its real-world significance.
- ☐ You challenge students with meaningful assignments.
- ☐ You create a class climate in which student diversity is respected.
- ☐ You give prompt and instructive feedback on assignments.
- ☐ You supplement lecture and reading assignments with visual aids (e.g., photographs, videos, diagrams, interactive simulations).
- ☐ You make yourself available to students during office hours in flexible formats (e.g., face-to-face, email, online chat, telephone).

If you answered YES to most or all of these questions, congratulations! You are reaching more students through the principles of **Universal Design for Learning**.

## Examples of addressing learner variability from *Learner Variability and UDL*

### I. Provide Multiple Means of Representation

- Make text available in a variety of formats: e-Text reader, audio, MS PowerPoint
- Offer a variety of media to access information
- Provide multiple visual and physical examples of information using, for example, manipulatives, Smart Boards, iPads

#### • Additional examples:

### II. Provide Multiple Means of Action & Expression

- Present learners with choices of tools to demonstrate knowledge. For example, provide a “technology toolkit” on a class wiki with reviews of available tools and resources
- Implement project-based learning to provide opportunities for problem solving and to help guide effective goal-setting
- Other examples: audio recording, dramatic productions, creating charts, graphs and illustrations, and free websites like Blogmeister, Glogster, Toondoo, Animoto, Xtranormal, Voki

#### • Additional examples:

### III. Provide Multiple Means of Engagement

- Teach students how to use the available formats, tools and technology
- Implement project-based learning opportunities to provide options for individual choice and enhance the relevance and authenticity of the learning
- Give choices of tools, technology, medium, work environments and topic
- Guide students to understand personal learning needs so they can make good choices and become more autonomous
- Provide opportunity for independent choices of participation, for example, standing during a lesson

#### • Additional examples:

Learner Variability and UDL from the National Center on UDL ([www.udlcenter.org](http://www.udlcenter.org)). Copyright CAST, 2012. Used with permission. All rights reserved.



## Analyzing the Lesson: Recognition Networks

Name:

Date:

Subject Area:

Lesson Title:

Learning Goal(s):

1. Use multiple ways to present information (Recognition Networks)	What current methods are used to address the needs of all learners?	What methods are needed for access, participation, & progress for all learners?	Materials
Provide multiple examples. Show the range of examples, provide examples and counter-examples. (e.g., persuasive writing – Op/Ed v. factual article in a newspaper)			
Highlight critical features (e.g., teacher tone of voice, marker underline or highlight, point to words or phrases)			
Represent information in multiple media and formats (e.g., text version of book, books on tape)			
Provide supports for limited background knowledge, and establish a context for learning (e.g., classroom resources, peer tutoring)			

## Analyzing the Lesson: Strategic Networks

Name:

Date:

Subject Area:

Lesson Title:

Learning Goal(s):

2. Provide multiple pathways for students' action, expression (Strategic Networks)	What current methods are used to address the needs of all learners?	What methods are needed for access, participation, & progress for all learners?	Materials
Provide flexible models of skilled performance (e.g., Math – math calc. demonstration (a) draw lines, (b) show manipulatives. Language Arts – sentence development verbally expand sentence in multiple acceptable ways.			
Provide opportunities to practice with supports (e.g., teacher prompt a multi-stepped task, provide a rubric/checkbox to edit writing)			
Provide ongoing, relevant feedback (e.g., (a) questions and answers in classroom, (b) quiz or test)			
Provide flexible opportunities for demonstrating skill. (e.g., written, oral, or visual presentation, explanations, word process)			
Provide novel problems to solve (e.g., unique problems outside the initial instructional set to promote generalization and transfer)			

## Analyzing the Lesson: Affective Networks

Name:

Date:

Subject Area:

Lesson Title:

Learning Goal(s):

3. Provide multiple ways to engage students (Affective Networks)	What current methods are used to address the needs of all learners?	What methods are needed for access, participation, & progress for all learners?	Materials
Offer choices of content and tools (e.g., choice of (a) books to study literature; select tragedy from a list, (b) report: written, drama, taped presentation)			
Provide adjustable levels of challenge: (e.g., range of materials at different reading difficulties, provide response formats with prompts v. open-ended)			
Offer a choice of rewards: (e.g., provide a menu of reinforcements, treats, stickers, free time, no homework, grades)			
Offer a choice of learning context (option to work in study carrel v. open classroom, student use headphones)			

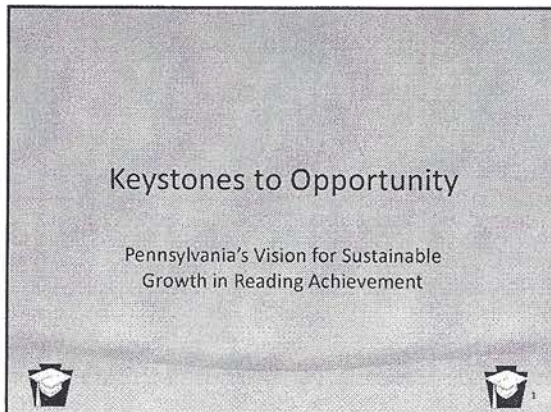


# Jess

~~7/12/13~~

7/12/13

2



bedtime math

brainrules.net

↳ + youtube videos



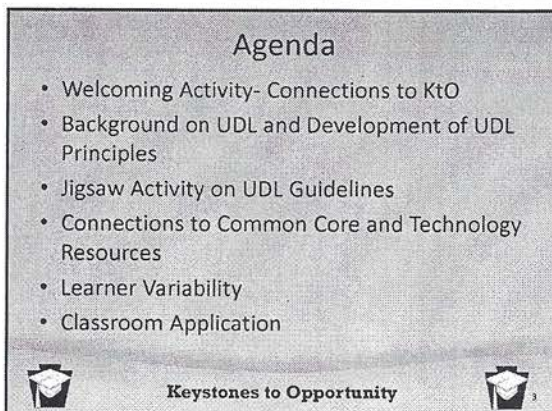
app → UDLlinks

↓

Coloring +

Khan academy

gutenberg.org → free books



pdesas.org

SAS portal on PDE site

Monroe County Public

↳ kids ↳ TumbleBooks Library

brain rules


John Medina

- learned helplessness


Wikispaces  
for parents  
Remind 101  
texting w/ #5

### Objectives

- Develop an understanding of UDL through its three principles
- Identify and describe the three neural networks to support learning
- Describe each UDL guideline and identify examples and resources to support each guideline
- Utilize and apply the UDL guidelines to the classroom to meet the needs of all learners



Keystones to Opportunity



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### Backchannel

<http://todaysmeet.com/esasd1>





Keystones to Opportunity



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### The Circle Map


Things/people that have influenced your journey as an educator

Your Name

Things that tell something about your thoughts/feelings/wonderings on...



Keystones to Opportunity



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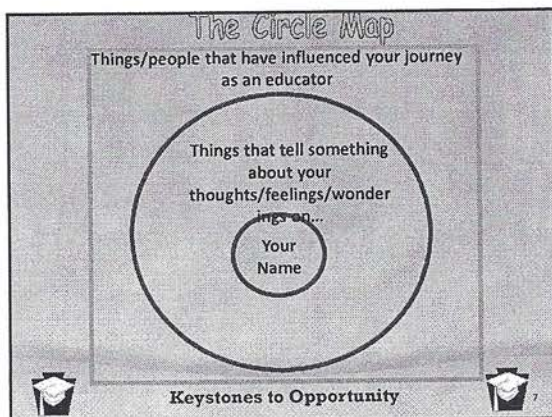
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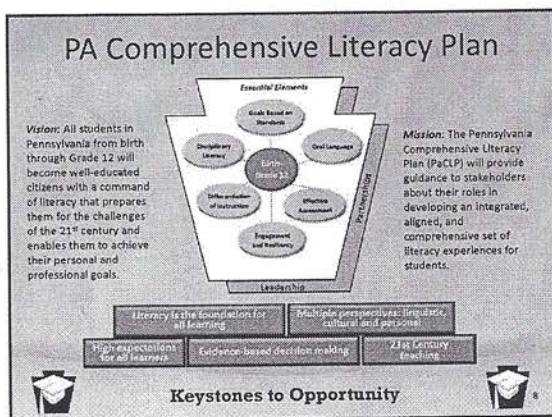
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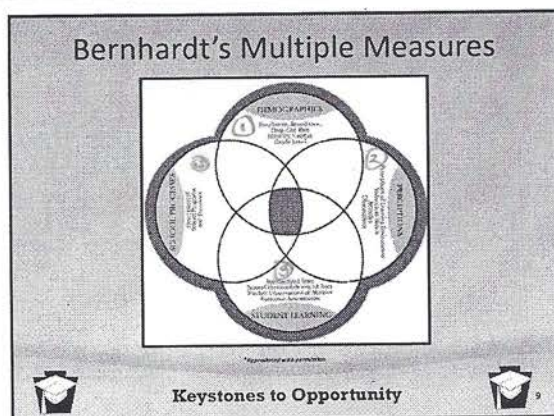
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① Demographics

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② Perceptions

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③ Student Learning

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④ School Processes

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### Myths/Facts

- UDL is a special education initiative.
- UDL is synonymous with differentiated instruction.
- Technology is a prerequisite for implementing UDL.
- English Language Learners can benefit from UDL.
- UDL is a framework that supports teaching to the standards for all students.

\* Refer to website



Keystones to Opportunity




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### Universal Design

"... the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design"

• Ron Mace



Keystones to Opportunity




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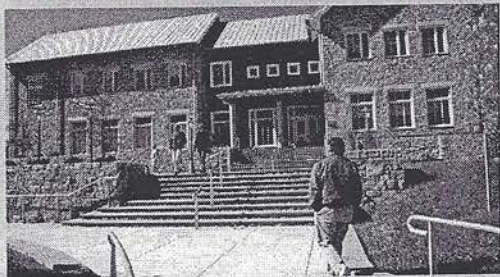
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created  
for  
architecture

### Non-Universal Design



Keystones to Opportunity




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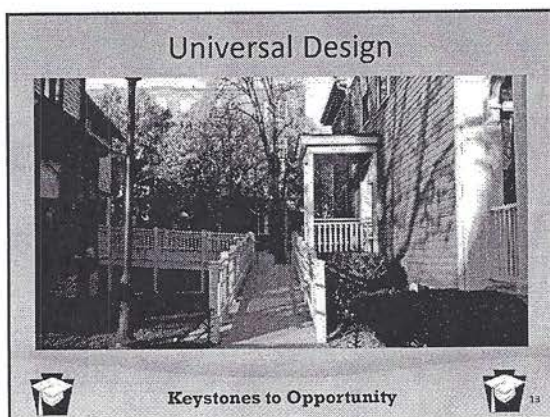
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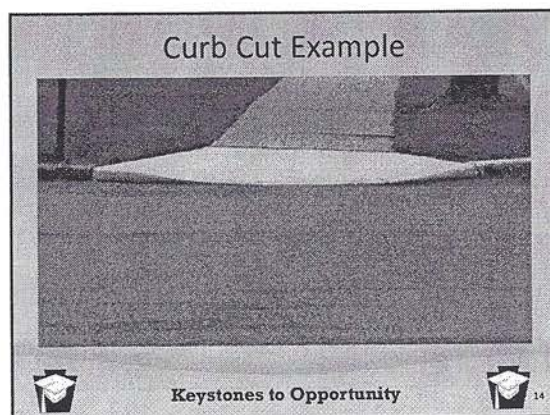
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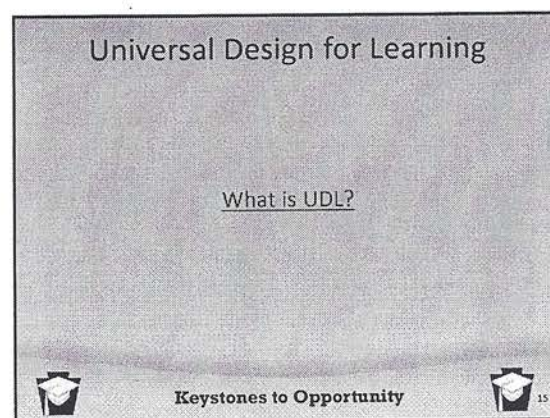
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video on youtube

www.cast.com

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Keystones to Opportunity




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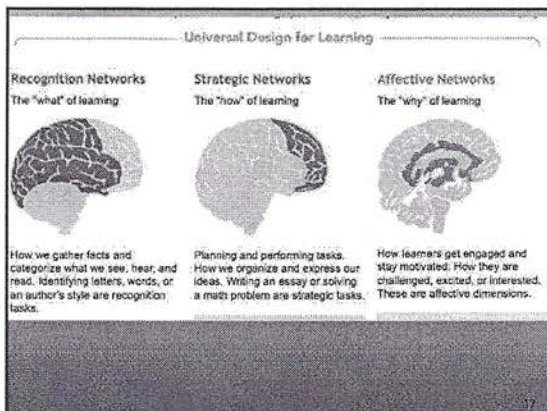
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(packet pg. 3)

### Brain Activity




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# The Unexpected Visitor

7/10/2012

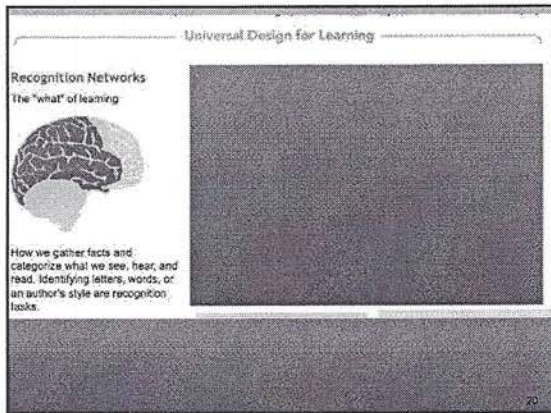


Keystones to Opportunity

Recognition: chair hat coat  
people/child table  
walls pictures picture  
table cloth door & frame frames  
floor curtains

Strategic: ages

Affective: man w/ hat




Keystones to Opportunity



Universal Design for Learning

**Strategic Networks**  
The "how" of learning



Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.

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 **Keystones to Opportunity**  23

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Universal Design for Learning

**Affective Networks**  
The "why" of learning



How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.

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Universal Design for Learning

Recognition Networks The "what" of learning	Strategic Networks The "how" of learning	Affective Networks The "why" of learning
		
How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.	Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.	How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.
<input checked="" type="checkbox"/> Present information and content in different ways More ways to provide Multiple Means of Representation	<input checked="" type="checkbox"/> Differentiate the ways that students can express what they know More ways to provide Multiple Means of Action and Expression	<input checked="" type="checkbox"/> Stimulate interest and motivation for learning More ways to provide Multiple Means of Engagement

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**UDL Principles**

*Multiple means of representation*, to give learners options for *acquiring* information and knowledge

*Multiple means of action and expression*, to provide learners options for *demonstrating* what they know

*Multiple means of engagement*, to tap into learners' interests, offer appropriate challenges, and increase *motivation*


**Keystones to Opportunity**


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Universal Design for Learning

**UDL Principles**

<input checked="" type="checkbox"/> Present information and content in different ways More ways to provide Multiple Means of Representation	<input checked="" type="checkbox"/> Differentiate the ways that students can express what they know More ways to provide Multiple Means of Action and Expression	<input checked="" type="checkbox"/> Stimulate interest and motivation for learning More ways to provide Multiple Means of Engagement
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Inaccessible Learning



[Print Text](#)

 Keystones to Opportunity  28

Joe's Non-  
Netbook  
(video)



Multiple Means of Representation

- Use of videos
- Customizing size, font and color
- Text to Speech
- Activate prior knowledge
- Highlight Critical Features
- Provide examples and non examples
- Show multiple examples

 Keystones to Opportunity  29

Multiple Means of Action and Expression

- Podcasts
- Movies
- Wikis
- Online Discussions
- Drawings/Comics
- Posters
- Voicethread
- Immediate, Ongoing Feedback

 Keystones to Opportunity  30

## Multiple Means of Engagement

- Providing Choice
- Flexible Grouping
- Safe Learning Environment
- Self-assessment and reflection
- Varying levels of difficulty



Keystones to Opportunity



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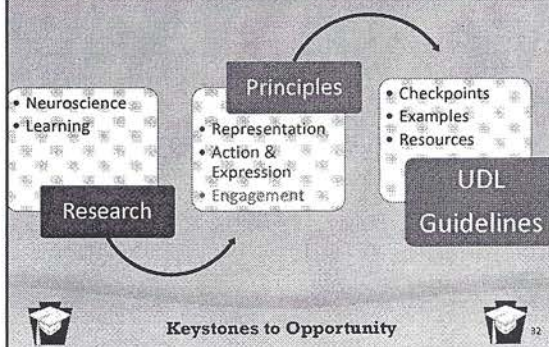
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## Flow of UDL



Keystones to Opportunity



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## Universal Design for Learning Guidelines

I. Provide Multiple Means of Representation	II. Provide Multiple Means of Action and Expression	III. Provide Multiple Means of Engagement
1.1 Provide options for representation 1.2 Offer ways of representing the key information 1.3 Offer alternative media for key information 1.4 Offer alternative media for key information	2.1 Provide options for physical actions 2.2 Offer ways of representing the key information 2.3 Offer ways of representing the key information	3.1 Provide options for engagement 3.2 Offer ways of representing the key information 3.3 Offer ways of representing the key information
1.5 Provide options for representation 1.6 Offer ways of representing the key information 1.7 Offer ways of representing the key information 1.8 Offer ways of representing the key information 1.9 Offer ways of representing the key information 1.10 Offer ways of representing the key information	2.4 Provide options for representation and information 2.5 Offer ways of representing the key information 2.6 Offer ways of representing the key information 2.7 Offer ways of representing the key information 2.8 Offer ways of representing the key information 2.9 Offer ways of representing the key information	3.4 Provide options for engagement and information 3.5 Offer ways of representing the key information 3.6 Offer ways of representing the key information 3.7 Offer ways of representing the key information 3.8 Offer ways of representing the key information 3.9 Offer ways of representing the key information
1.11 Provide options for representation 1.12 Offer ways of representing the key information 1.13 Offer ways of representing the key information 1.14 Offer ways of representing the key information 1.15 Offer ways of representing the key information	2.10 Provide options for representation and information 2.11 Offer ways of representing the key information 2.12 Offer ways of representing the key information 2.13 Offer ways of representing the key information 2.14 Offer ways of representing the key information	3.10 Provide options for engagement and information 3.11 Offer ways of representing the key information 3.12 Offer ways of representing the key information 3.13 Offer ways of representing the key information 3.14 Offer ways of representing the key information
<b>Foundational, knowledge-based learners</b>	<b>Strategic, goal-oriented learners</b>	<b>Personal, motivated learners</b>

CAST

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### Jigsaw on the Guidelines

- Home Group – 8 people
- Count off
- Expert Group – same numbered people get together – ex. All 3s work together
  - Explore the website and principles  
[www.udlcenter.org/aboutudl/udlguidelines](http://www.udlcenter.org/aboutudl/udlguidelines)
  - Complete graphic organizer
- Home group – share out
- Whole group – share out



Keystones to Opportunity




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### Expert Group

Define Principle:

Define Guideline:

Principle Number	Summary	Standout Example (2-3)	Notes



Keystones to Opportunity




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### Home Group Share Out

- In your home group, share your information.
  - Include key words/phrases, examples and notes
  - Group members complete their graphic organizers recording aha's... do not focus on writing every word
- Time keeper- 4 minutes per person



Keystones to Opportunity




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UDL

- Developed by Seattle Central Community College



Keystones to Opportunity



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**Myths/Facts: Check-In**

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\* Refer to website



Keystones to Opportunity



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**Lunch**





Keystones to Opportunity



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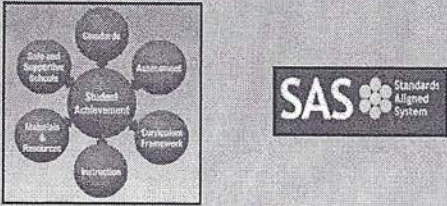
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### Standards Aligned System



**Keystones to Opportunity**

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### PA Common Core

The Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA), with participation of the overwhelming majority of states, set a goal to create standards that are "research and evidence-based, aligned with college and work expectations, include rigorous content and skills and are internationally benchmarked." As Pennsylvania follows the development of the K-12 Common Core Standards and determines the alignment of Common Core Standards to PA Standards, <http://www.pdesas.org/Standard/CommonCore> will provide educators with information and updates on the progress of that work.

**Keystones to Opportunity**




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### Kindergarten: Writing

Use a combination of drawing, dictating, and writing to focus on one specific topic.

[Voicethread](#)      [Voicethread Example](#)

**Keystones to Opportunity**

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## Second Grade: Writing

With guidance and support, use a variety of digital tools to produce and publish writing including in collaboration with peers.

[Google Docs](#)

[Google Docs Example](#)

[Wall Wisher](#)

[Wall Wisher Example](#)

[Wordsmyth](#)



Keystones to Opportunity




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## Fifth Grade: Writing

With some guidance and support, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

[Epals](#)

[Blog for Parents](#)

[Blogs](#)

[Make Beliefs](#)

[Comix](#)

[Comics Classroom Uses](#)



Keystones to Opportunity




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## Fifth Grade: Writing

Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.

[Library of Congress](#)

[Noodle Tools](#)



Keystones to Opportunity




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### Sixth Grade: Reading Literature

Compare and contrast the experiences of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what is "seen" and "heard" when reading the text to what is perceived when listening or watching.

Bookshare

<http://librivox.org>

<http://www.gutenberg.org/>



Keystones to Opportunity




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### Grade Eight: Reading Informational Text

Evaluate the advantages and disadvantages of using different mediums (e.g. print or digital text, video, multimedia) to present a particular topic or idea.

Natural Readers



Keystones to Opportunity




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### Grades 11 and 12: Reading Literature

Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Vocabahead



Keystones to Opportunity




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### H.E.A.T

- All grantees who target schools Kindergarten through grade 12 will be required to administer H.E.A.T.
- H.E.A.T. must be administered a *minimum* of 2 times a year.

H - Higher order thinking  
 E - Engaged learning  
 A - Authentic connections  
 T - Technology use

Keystones to Opportunity

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### ITERS-R/ECERS-R

<b>ITERS-R</b> I - Infant T - Toddler E - Environment R - Rating S - Scale	<b>ECERS-R</b> E - Early C - Childhood E - Environment R - Rating S - Scale
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- Grantees who target birth to age 3 must administer the ITERS-R
- ITERS-R must be administered a *minimum* of 2 times a year
- Grantees who target preschool students must administer the ECERS-R
- ECERS-R must be administered a *minimum* of 2 times a year

Keystones to Opportunity

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### GRADE

- All grantees must administer GRADE to all students in target schools/programs.
- GRADE is to be administered 3 times a year

G - Group  
 R - Reading  
 A - Assessment  
 D - Diagnostic  
 E - Evaluation

Keystones to Opportunity

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## DIBELS Next

D – Dynamic  
I – Indicators  
B – Basic  
E – Early  
L – Literacy  
S – Skills



- All grantees who target K-5 must administer the DIBELS Next to Kindergarten, 1<sup>st</sup> grade, 2<sup>nd</sup> grade, and 3<sup>rd</sup> grade students in targeted schools/programs.
- DIBELS Next must be administered 3 times a year



Keystones to Opportunity



## Parent Engagement

"My vision for family engagement is ambitious...I want to have too many parents demanding excellence in their schools. I want all parents to be real partners in education with their children's teachers, from cradle to career. In this partnership, students and parents should feel connected—and teachers should feel supported...when parents demand change and better options for their children, they become the real accountability backstop for the educational system." (Secretary of Education, Arne Duncan, May 3, 2010).

I now KNOW that I am my son's first and most important teacher, and I want to be able to help him succeed in his education until he graduates. And...maybe beyond that!" (Family Literacy Parent, Mifflin County, 2011)



Keystones to Opportunity



## Parental Engagement Resources

- Wikispaces  
– A free website to keep up to date information about assignments in the classroom.
- Remind 101  
– Free way to text students and parents without sharing phone numbers about upcoming meetings, assignments and assessments.



Keystones to Opportunity



## Implementing UDL in the Classroom

### Learner Variability

- During the video, complete the evidence side of the graphic organizer.
- Handout or <http://tinyurl.com/evidencechart>
- We will complete the Interpretation side after the video is over.
- Think about what evidence of UDL you see in the video.



Keystones to Opportunity




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\* Refer to website



Keystones to Opportunity




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## Bringing It All Together




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### UDL in Your Classroom

- Create a lesson utilizing the UDL guidelines
- Options to create a lesson.
  - Go to SAS and select a Common Core standard that you teach and create a lesson.
  - Use a lesson that you brought
  - Use examples that you wrote down and the UDL Center website for support
- Share Out

 **Keystones to Opportunity** 

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 **Keystones to Opportunity** 

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### Thank you!

Questions?

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surveymonkey.  
com / s / K+O  
Content Training  
Evaluation