

# PDFsUniversal Design For Learning

## Overview and Speaker Notes

**Intended Audience:** Teachers in grades K – 12 representing all content areas, including special education.

### Overview for Facilitators

The CEEDAR Center is pleased to provide the anchor presentation: *Universal Design for Learning*. The materials are designed to be included in a pre-service teacher preparation course or in-service teacher professional development program. This resource will increase in-service professionals' ability to improve students' readiness for college and careers.

### Speaker Notes

The speaker notes are what the facilitator can say, verbatim, to explain each slide and the activities. Speaker notes are provided for most of the PowerPoint slides included. The notes provide additional details about the information presented in a particular slide, including the context for the information being presented as well as further elaboration of key points being discussed. The notes are provided as a guide, and speakers should feel free to modify these as needed.

- Text formatted in standard font is a sample script for the presenter. While these may be read verbatim, speaker notes are intended as a guide for the presenter and may be modified as needed.
- Text formatted in *italics* is intended as directions or notes for the facilitator; italicized text is not meant to be read aloud.

### Materials Required

1. Computers or tablets with internet access for participants (if possible)
2. Handouts
3. Projector with audio capable of playing video
4. Large pieces of paper (for group use) and markers
5. Presentation slides with speaker notes

**Objectives:** After participating in this professional learning opportunity, participants will be able to:

- ❖ Describe Universal Design for Learning (UDL)

- ❖ Identify the characteristics of UDL
- ❖ Implement one aspect of the UDL framework when planning instruction

### Outline of Session Activities and Approximate Time (Approximately 2 hours total)

Topic	Slides	Activity	Time
Introduction/Goals	1 - 3		5
UDL Implementation	4	Watch a Tedx video/Handout	25
Learner Variability	5 - 7		4
Vocabulary	8 – 12	Handout	4
UDL at a Glance	13	Video	5
Barriers/4 Pillars	14 – 15		2
Learning Goals	16 – 25	Handout	15
Instructional Methods	26 – 28	Website Investigation	10
Materials	29 – 31	Game	10
Assessments	32 – 34	Partner discussion/video	10
UDL Guidelines	35	Handout	5
UDL Exchange	36	Website Investigation	10
UDL POA	37	POA Creation	15

### Suggested Follow-Up Professional Learning Opportunities

In professional learning communities, study a selection of the following websites and books

About Universal Design for Learning. (n.d.). Retrieved January 10, 2015, from <http://www.cast.org/our-work/about-udl.html>

Home | National Center On Universal Design for Learning. (n.d.). Retrieved March 25, 2015, from <http://www.udlcenter.org/>

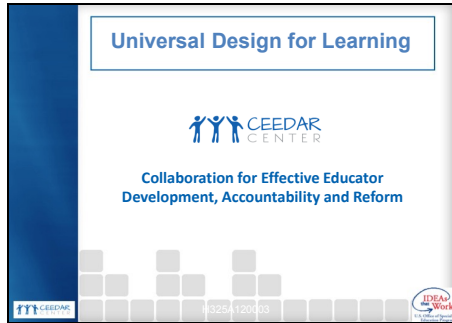
Meyer, A., Rose, D., & Gordon, D. (2013). *Universal design for learning: Theory and practice*. Wakefield, MA: CAST Professional Publishing.

Nelson, L. (2014). *Design and deliver: Planning and teaching using universal design for learning*. Baltimore, MD: Paul H. Brookes Publishing Company.

Rose, D. (2006). *A practical reader in universal design for learning*. Cambridge, Mass.: Harvard Education Press.

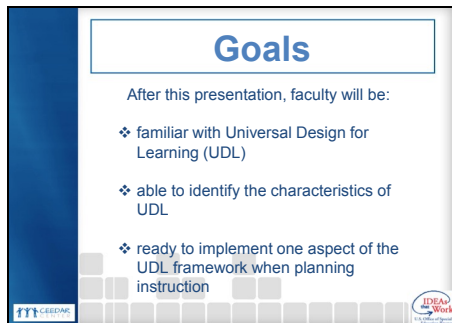
### Speaker Notes with Slides

Slide 1



This presentation was created by the CEEDAR Center to be a tool for K – 12 faculty professional development.

Slide 2



This is an introductory PowerPoint presentation. This is intended for a faculty that is not currently familiar with the Universal Design for Learning Framework, but if you are familiar with UDL this should still be an opportunity to deepen and broaden your understanding. At the end of the presentation you will be familiar with Universal Design for Learning, and be able to identify UDL when you see it. Most importantly, you will be able and ready to implement at least one aspect of the UDL framework the next time you plan instruction. In an ideal scenario, you will also be inspired to integrate the principles of UDL because it will appeal to you as an educator.

Slide 3

A Shift in How We Think About Students and Curriculum

UDL is an attempt to fix the curriculum instead of trying to fix the student.

Logos for CREDAR and IDEAS@Work are visible at the bottom.

UDL is related to many educational practices that came before it, but it also has roots in the worlds of architecture and product design. Things like curb cuts and easy-to-read signage are examples of Universal Design, which is design meant to be accessible to everyone, including users with disabilities. Implementers of UDL have found that when they make the curriculum more accessible everyone benefits.

Slide 4

UDL Implementation

Can you design to the edges?

Watch this video:  
<https://www.youtube.com/watch?v=4e8myttcfJ4>

After you watch the video respond and/or reflect with a partner on the metaphor on your handout.

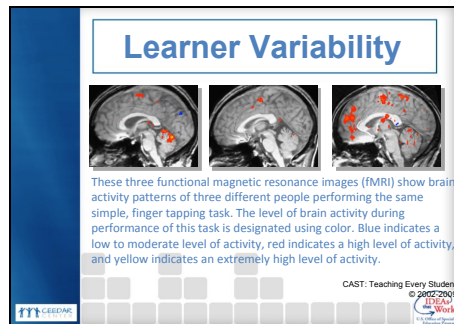
Logos for CREDAR and IDEAS@Work are visible at the bottom.

This video's running time is 18:26. It's a TEDx video featuring a high school dropout turned Harvard faculty member, who talks about how a simple new way of thinking helps nurture individual potential. He never mentions UDL explicitly, but the big ideas here are the same. After we finish watching the video we'll spend some time going over what we've watched.

*After the participants have watched the video have them respond to the video using their handout.*

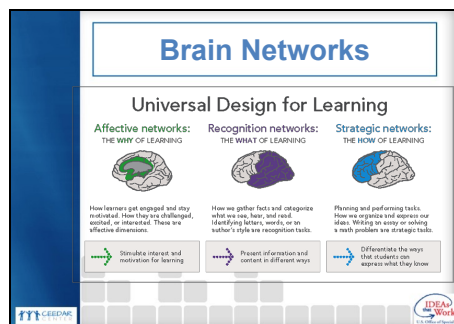


Slide 5



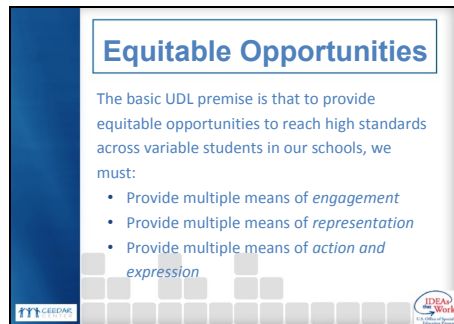
The UDL framework is based on learner variability, which is scientifically validated. We all use different parts of our brains to do all kinds of things – no learner is exactly like any other learner. This slide shows how even the simplest task is processed in different parts of three people's brains. *Have everybody tap their fingers in a pattern that you've modelled. Explain that their brains, if they were all hooked up to fMRIs, would be lighting up in different areas.* This slide shows that for some people finger tapping lights up all kinds of areas, while the person in the middle exhibited very little neurological activity during this task. Everything humans do is like this.

Slide 6



UDL uses two different types of brain research as a basis. There is the research on learner variability, which was on the previous slide. Learner variability show us that no two people learn in the same exact way. The second type of brain research that UDL is based on is the research about the three different networks that we know exist in our brains. All three of these networks need to be engaged for high-quality learning to happen. The UDL framework attempts to give teachers tools to make sure all three of these networks are engaged with all learners. *Walk participants through the slide.*

Slide 7



**Equitable Opportunities**

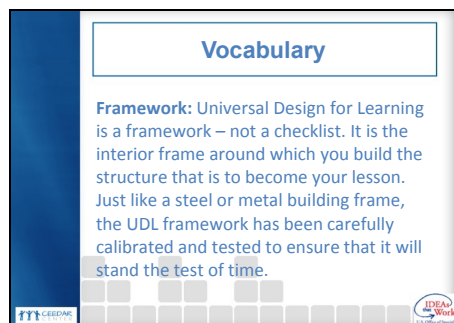
The basic UDL premise is that to provide equitable opportunities to reach high standards across variable students in our schools, we must:

- Provide multiple means of *engagement*
- Provide multiple means of *representation*
- Provide multiple means of *action and expression*

ITT Learning Technology logo is in the bottom left. The IDEA Work logo is in the bottom right.

These are the three major principles of UDL, and they are based on the idea of learner variability and the three neural networks that affect learning. The UDL framework is structured entirely around this scientifically validated concept, that in order to give every student a chance to achieve at a high level we must seek to engage them in a variety of ways, that we must offer the students a variety of ways to access the materials, and we must give students options about how to show us that they are learning.

Slide 8



**Vocabulary**

**Framework:** Universal Design for Learning is a framework – not a checklist. It is the interior frame around which you build the structure that is to become your lesson. Just like a steel or metal building frame, the UDL framework has been carefully calibrated and tested to ensure that it will stand the test of time.

ITT Learning Technology logo is in the bottom left. The IDEA Work logo is in the bottom right.

*There is a handout that goes with this slide. Pass it out now if the participants don't already have it.* The next five slides are all vocabulary that is associated with UDL. Understanding the vocabulary allows us to have better access to the ideas. *Read through the slide.* It is important to understand that UDL can't be boiled down to a simple checklist. It is about thoughtfully designing instruction with a particular group of students in mind, because what might be a well-designed lesson for one group of students would not necessarily work for another group of students. *Give participants time to make notes on their handout.*

Slide 9

**Vocabulary**

**Learning Environment:** When we talk about the learning environment as it relates to UDL, we're talking about both the space/location of your lesson, and the way the students can use the space. In an ideal scenario a teacher has the opportunity to tailor space to meet the needs of students for each lesson, and to provide access to tools, resources, and strategies for learning. Further, the tools and resources are flexible in a UDL environment, meaning their use is not specifically prescribed by the teacher.

IDEAS that Work

*Read through the slide. It may be worthwhile to ask participants to look around the room they're in while you're looking at this slide, and to make some observations about whether or not the space could have been made more accessible or user-friendly. It is a common misconception that UDL is just incorporating technology into instruction. Sometimes UDL does include technology, but if the technology options are too prescriptive than the technology can actually be a hindrance to learning. UDL is about access to learning and overcoming barriers, so the learning environment should be mindfully constructed to be accessible for all students. Give participants time to make notes on their handout.*

Slide 10

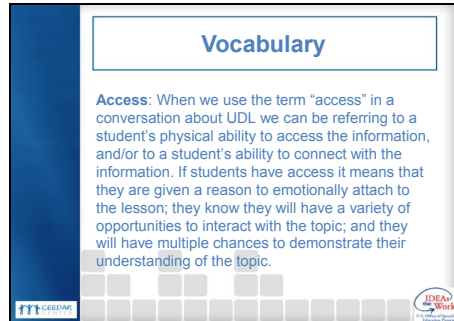
**Vocabulary**

**Lesson Goal:** In the UDL framework the lesson goal is the most important thing. A well-planned lesson goal will describe what the student is supposed to learn, but not how the student is going to learn. Goals should be observable and measurable, but the means of achieving the goal should be flexible.

IDEAS that Work

*Read through the slide. It is true that the UDL framework is not unique in ascribing supreme importance to the lesson "goal." What makes UDL goals different, however, is the specific focus on creating goals that allow the learner to find their own way to the end. Educators have long been in the habit of telling students how they must get to where they're going, but UDL asks educators to create finely crafted, specific goals that allow for a broad range of paths. Give participants time to make notes on their handout.*

Slide 11



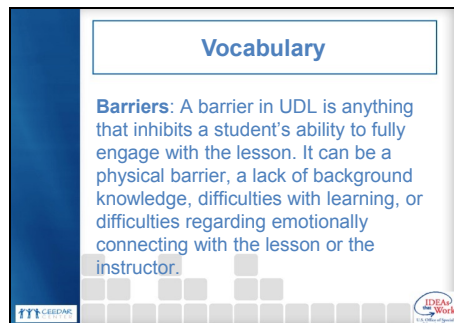
**Vocabulary**

**Access:** When we use the term “access” in a conversation about UDL we can be referring to a student’s physical ability to access the information, and/or to a student’s ability to connect with the information. If students have access it means that they are given a reason to emotionally attach to the lesson; they know they will have a variety of opportunities to interact with the topic; and they will have multiple chances to demonstrate their understanding of the topic.

CEEDAR  
IDEAS Work  
National Center for Universal Design for Learning

*Read through the slide. Access is another main idea in the UDL framework. Sometimes it is enough to present information in a single way and ask students to respond in a uniform way. Often, though, it is not. Often we need to think of individual students and ask ourselves, “Will this student want to learn about this? Will this student be able to learn about this? Will this student be able to show me what she’s learned?” If the answer to any of those questions is a maybe or a no, we need to increase access. Give participants time to make notes on their handout.*

Slide 12



**Vocabulary**

**Barriers:** A barrier in UDL is anything that inhibits a student’s ability to fully engage with the lesson. It can be a physical barrier, a lack of background knowledge, difficulties with learning, or difficulties regarding emotionally connecting with the lesson or the instructor.

CEEDAR  
IDEAS Work  
National Center for Universal Design for Learning

*Read through the slide. Give participants time to make notes on their handout.*

Slide 13

**Everybody has some barriers to learning**

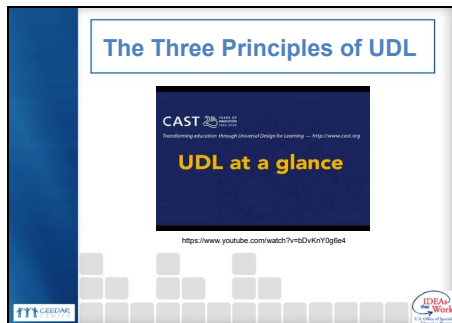
There are some barriers (like being hungry) that UDL can't fix. But most academic barriers, like poor writing skills, a small vocabulary base, or difficulty with number fluency, can be mediated by providing multiple means of engagement, representation, action, and expression.

*All students can succeed in a UDL classroom, meaning everybody can work towards mastery.*

UDL  
IDEAS Work

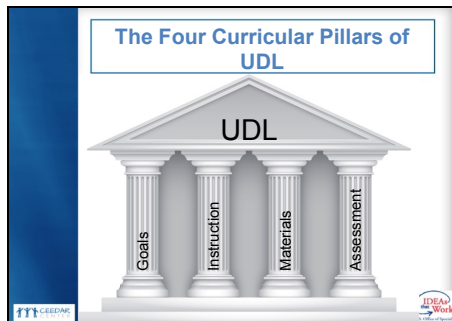
The primary purpose of UDL is to break down barriers to learning. If the learning barriers are removed, all students can learn and be successful – and so can teachers! Barriers are the things that keep students from succeeding, and the goal of using the UDL framework is to mitigate barriers. Some of you, right now, are not taking in what we're talking about. You're uncomfortable in your seat, or you are worried about something, or you don't think you need this information. Maybe you have a hard time reading things off of a screen at the front of the room because of eyesight issues, or you are annoyed with the sound of my voice. Maybe I've used words that you don't understand and that made you tune out, or you have harbored a deep resentment of UDL ever since you first heard about it because it just seems like the same old fad wrapped up in a new name. These are all BARRIERS. In a perfect UDL setting, I would try to address all of them. Of course, I can't address all of them, but I'm going to do my best to minimize the barriers. That's why we're going over vocabulary. That's why there was a video at the beginning that was meant to get you emotionally invested in UDL. In a classroom setting you may have students who have bad handwriting. Do you fight with the student about their handwriting, or do you let them do assignments on a computer? Sometimes we have to struggle through barriers, but sometimes we can just work around them. The UDL framework asks you to put learning at the center of your instruction, and keep the barriers as far to the outside as possible.

Slide 14



This video is 4 minutes and 36 seconds. It introduces some basic UDL background and ideas. At this point it may be a little bit of review, but it organizes some of what we've talked about in a more formal way. *Play the video.*

Slide 15



This slide introduces the four curricular pillars of UDL. Goals, instruction, which is sometimes called instructional methods, materials, and assessment. We will address each of these four curricular pillars in the following slides.

Slide 16

**Learning Goals**

Clear learning goals are the foundation of any effective curriculum. Only by clarifying what we want to accomplish and when - in the next 10 minutes, in the next lesson, in the next year - can we begin to consider what assessments, methods, and materials will be most effective.

Goals are often described as learning expectations.

CEEDAR  
IDEAS Work  
The Universal Design for Learning Center

This slide introduces the first curricular pillar – goals. We talked about this in the vocabulary section, but it's worth revisiting because it is such a fundamental concept in the UDL framework. The other three pillars of UDL can only be addressed when you're planning a lesson after you've written a clear goal.

Slide 17

**Learning Goals**

Traditionally goals represent the knowledge and skills that all learners should master and are generally aligned to standards. From a UDL perspective, affective goals such as developing enthusiasm for learning and an ability to self-regulate are equally important. In our view, affective goals should be more clearly articulated in standards, and, more specifically, included in assessment.

Universal Design for Learning: Theory and Practice  
By Anne Meyer, David H. Rose, and David Gordon

CEEDAR  
IDEAS Work  
The Universal Design for Learning Center

This slide further expands the idea of goals to include the idea that affective goals are important in a UDL classroom. Educators haven't traditionally been trained to think about including affective goals in their plans, but it makes sense that it's important.

Slide 18

**Learning Goals**

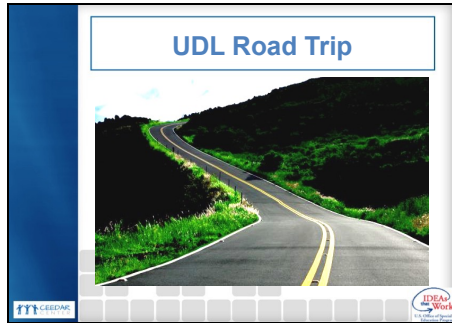
From a UDL perspective, effective goals are goals that:

- Separate the means from the ends;
- Consider all three learning networks;
- Challenge all learners;
- Actively involve learners.

CEEDAR  
IDEAS Work  
The Universal Design for Learning Center

*After participants have had an opportunity to read through this slide, ask them which of these characteristics of effective goals is most difficult to consistently include. Depending on the size of your group ask them to share with a partner, with their table, or with the whole group.*

Slide 19



So let's imagine we're going on a road trip. We have a specific destination in mind. It is our goal. So we plug that destination into our GPS.

Slide 20



In a traditional classroom, teachers write prescriptive goals, like "Students will write a descriptive essay about Greek mythology." which means that there is only one way to get there. The student has to "write."

Slide 21



The goal in a traditional classroom is to get from the starting point to the end point in a single, seemingly efficient way. But what happens if the student hates to write, or has a hard time putting thoughts into words, or doesn't have a computer with a working keyboard, or has fine motor deficiencies? What happens if the last paper the student wrote was ripped apart by another teacher who is a harsh grader, and now the student feels like writing is a surefire way to get demoralized? A GPS can give you one set of directions, but there are various reasons that route might not



work. The route might be meant for a car and you want to walk, or there might be road construction, or an accident, or you might have a passenger who can't go through tunnels. The point is to get to the goal, even if the way you get there isn't what the GPS determined was the most efficient.

Slide 22



So what if we run the destination through a UDL algorithm? In the example above the GPS is using the top four squares, the four curricular pillars – goals, methods, assessment, and materials and the bottom row of squares, which represent the three big principles of UDL – multiple means of representation, multiple means of expression, and multiple means or engagement.

Slide 23



The UDL classroom teacher writes goals that allow students to show what they know in a variety of ways. If the point is to learn about Greek mythology than the goal should just be about Greek mythology. If the goal is to learn to write, than the goal should just be about writing.

Slide 24



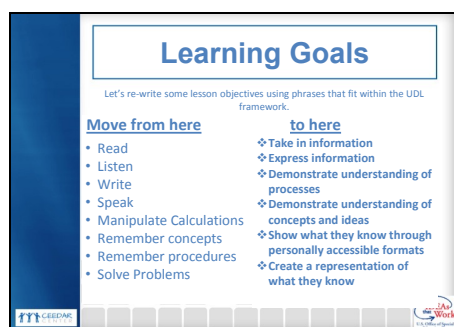
The UDL classroom offers students (and teachers!) a variety of options, so that people can find their own, best way. One of the challenges of UDL for educators is learning to trust that students will get to where you want them to go, but well-written goals are the surest way of beginning a successful journey.

Slide 25



So what do all of those routes represent? If students aren't writing, how can they demonstrate what they know? Students can use graphic organizers, PowerPoint, videos, handwritten papers, typed papers, diagrams, oral presentations, podcasts, etc. to present the information they know. *This might be a good time to pause and ask the participants for other ways students can demonstrate what they know.*

Slide 26



This is an activity that will allow us to practice writing goals that fit within the UDL framework. *There is a handout that goes with this slide. Invite the participants to work on their own or in groups. Invite people to share examples when they're finished.*

Slide 27

### Instructional Methods

Instructional methods include the decisions, approaches, procedures, and routines that teachers use to accelerate or enhance learning. Because learners vary in the ways they become and stay motivated to learn, comprehend information, and strategically approach tasks, the UDL framework emphasizes the need to employ many kinds of teaching methods.

CEDEAR

IDEAS that Work

This slide introduces the second curricular pillar – instruction. *Read through the slide.* We all know there are students who will learn even in the absence of instruction, and we all know the students who don't think they can learn no matter how "hard" you teach. In a classroom where the teacher has used the UDL framework to plan instruction the goal is for every kind of learner to have an opportunity to access the information.

Slide 28

### Instructional Methods

To support diverse affective networks:

- Offer choices of content and tools
- Offer adjustable levels of challenge
- Offer choices of rewards
- Offer choices of learning context

To support diverse strategic networks:

- Provide flexible models of skilled performance
- Provide opportunities to practice with supports
- Provide ongoing, relevant feedback
- Offer flexible opportunities for demonstrating skill

To support diverse recognition networks:

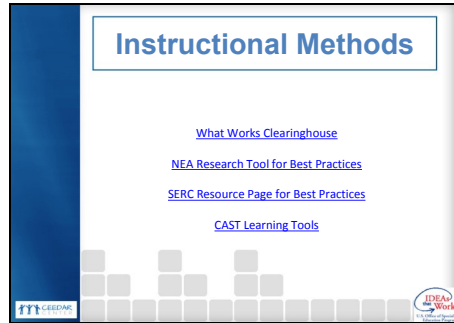
- Provide multiple examples
- Highlight critical features
- Provide multiple media and formats
- Support background context

CEDEAR

IDEAS that Work

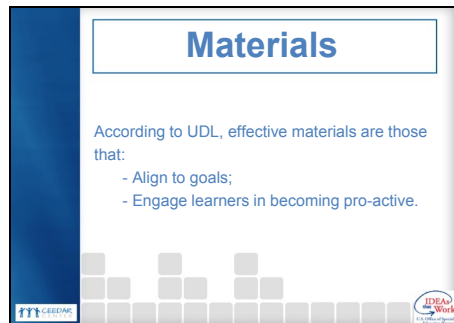
Supporting all three different parts of the brain (from a previous slide) with different instructional methods is key to working with the UDL framework. *You may want to ask the participants who remembers the three networks of the brain that involve learning – they are the affective network, the recognition network, and the strategic network.* When we talk about instructional methods people often just think we're talking about differentiation, but it is not the same. It is not a matter of choosing one thing that will work for a student and going with that, it is a matter of appealing to all of the different parts of our brain that engage with learning.

Slide 29



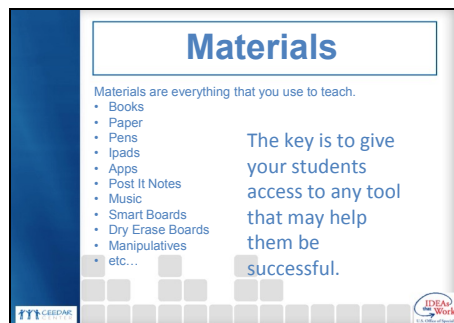
The websites listed in this slide are all resources for finding lists and examples of evidence-based practices (EBP), which are the best place for us to start when we are looking for different methods and strategies for delivering instruction. *If you can click on the websites so teachers can see what the resources are that are available, that would be ideal.*

Slide 30



This slide introduces the third curricular pillar – materials. *Read through the slide.*

Slide 31



Often people assume that when we talk about materials and UDL together we're only talking about technological tools, but of course, everything we use in a classroom is a tool for learning. Even the teacher's voice is a "material." In an ideal setting we have everything we need to give our students every opportunity to learn and we let them use those materials in an open-ended way. Sometimes we can't have everything we think we need, but we can still be creative in the way we use what we have.

Slide 32

## Materials



Materials Competition!

Each table has a large piece of paper.

We're going to set a timer for 5 minutes.

The team that can list the most materials and means of representation in 5 minutes wins.

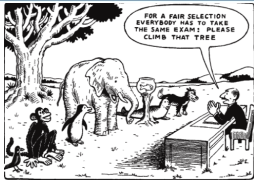
Examples: Highlighters, Quizlet, Venn Diagrams...





We're going to have a little game now, so those of you who have a competitive spirit can get a little more engaged. *You will need to have large pieces of paper ready to distribute with markers. It would be awesome if you had prizes for the winners. Anything the participants list that you could use in a classroom is a good answer – ipads, globes, dictionaries, colored pencils, stickers, post-its, etc. The purpose of this activity is to help the participants see that they have access to many things that can help them create a UDL environment and that can be used to plan UDL lessons.*

Slide 33

## Assessments



Turn and talk to your partner:  
Why is this cartoon funny?  
How might it connect to UDL and assessment?




This slide introduces the fourth curricular pillar – assessments. *Read through the slide. Give the participants a chance to share their ideas with their partners. If it's time to get folks to stand up you might want people to stand if they've seen this cartoon before. Ask them to keep standing if seeing it while thinking about UDL has given them a new perspective.*

Slide 34

## Assessments

As you watch this video think about how the practice of responding to a rubric serves as a progress monitoring tool and as a way of giving mastery-oriented feedback.



<https://www.teachingchannel.org/videos/designing-rubric>

**IDEAS Work**  
Universal Design for Learning

This 2 minute and 11 second video is about a teacher who is using a mid-project review rubric. This is an opportunity to talk about how assessments, in a UDL classroom, are designed to be ongoing and flexible. *Play the video.*

Slide 35

## Assessments

From a UDL perspective, effective assessments:




- Are ongoing and focused on learner progress;
- Measure both product and process;
- Are flexible, not fixed;
- Are construct relevant;
- Actively inform and involve learners.

**IDEAS Work**  
Universal Design for Learning

This slide defines assessments in UDL terms. *Read through the slide.*

Slide 36

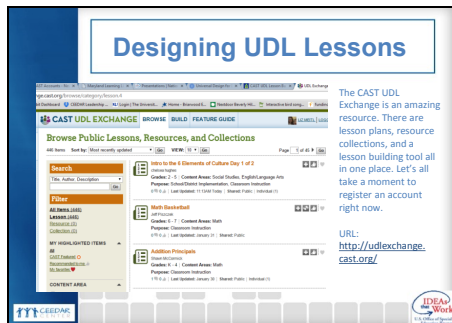
## Universal Design for Learning Guidelines

 <b>Provide Multiple Means of Engagement</b> <i>Purposeful, motivated learners</i>	 <b>Provide Multiple Means of Representation</b> <i>Resourceful, knowledgeable learners</i>	 <b>Provide Multiple Means of Action &amp; Expression</b> <i>Strategic, goal-directed learners</i>
<b>Provide options for self-regulation</b> <ul style="list-style-type: none"> <li>• Promote expectations and habits that optimize motivation</li> <li>• Facilitate personal coping skills and strategies</li> <li>• Develop self-assessment and reaction</li> </ul>	<b>Provide options for comprehension</b> <ul style="list-style-type: none"> <li>• Activate or supply background knowledge</li> <li>• Highlight patterns, critical features, key ideas, and relationships</li> <li>• Guide information processing, visualization, and manipulation</li> <li>• Maximize transfer and generalization</li> </ul>	<b>Provide options for executive functions</b> <ul style="list-style-type: none"> <li>• Guide appropriate goal-setting</li> <li>• Support planning and strategy development</li> <li>• Enhance capacity for monitoring progress</li> </ul>
<b>Provide options for sustaining effort and persistence</b> <ul style="list-style-type: none"> <li>• Heighten relevance of goals and objectives</li> <li>• Vary demands and resources to optimize challenge</li> <li>• Foster collaboration and community</li> <li>• Increase mastery-oriented feedback</li> </ul>	<b>Provide options for language, mathematical expressions, and symbols</b> <ul style="list-style-type: none"> <li>• Clarify vocabulary and symbols</li> <li>• Clearly organize and structure</li> <li>• Support decoding of text, mathematical notation, and symbols</li> <li>• Promote understanding across languages</li> <li>• Maximize through multiple media</li> </ul>	<b>Provide options for expression and communication</b> <ul style="list-style-type: none"> <li>• Use multiple media for communication</li> <li>• Use multiple tools for construction and composition</li> <li>• Build on prior and graduated levels of support for practice and performance</li> </ul>
<b>Provide options for recruiting interest</b> <ul style="list-style-type: none"> <li>• Optimize individual choice and autonomy</li> <li>• Optimize resources, value, and authority</li> <li>• Minimize threats and distractions</li> </ul>	<b>Provide options for perception</b> <ul style="list-style-type: none"> <li>• Offer ways of customizing the display of information</li> <li>• Offer alternatives for auditory information</li> <li>• Offer alternatives for visual information</li> </ul>	<b>Provide options for physical action</b> <ul style="list-style-type: none"> <li>• Vary the methods for response and navigation</li> <li>• Optimize access to tools and assistive technologies</li> </ul>

This is the expanded version of the principles and guidelines document that includes the checkpoints. *There is a handout of this slide if you would like to pass it out.* Earlier we said that UDL is a framework, not a checklist. This slide, however, makes it look like UDL could easily be turned into a checklist. These principles, guidelines, and checkpoints, though, aren't meant to be used with every learner in every lesson every day. What UDL asks us to do is use these proven strategies to reduce barriers to learning. For example, if engagement is not a barrier for any student in a particular

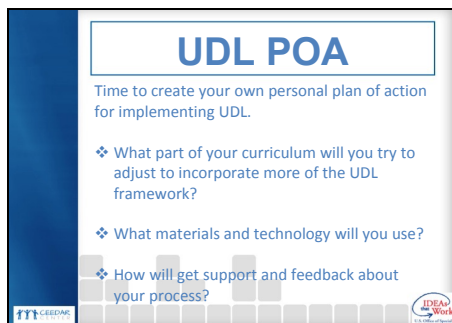
lesson because it is intrinsically exciting and the students have their own reasons to sustain their interest, than there isn't any reason to do a lot of extra work to foster engagement. That would be a good opportunity to pay attention to providing multiple means of representation or action and expression.

Slide 37



The CAST UDL exchange is an online forum where teachers share resources they've created that are designed using the UDL framework. This is a really great resource for you to engage with as you implement the UDL framework into your classrooms. *Encourage them to use their laptops or phones to sign up immediately.*

Slide 38



*This is an opportunity for the participants to answer a few basic questions to get them to begin to own the next big step – which is taking what they've learned and actually applying it in their classrooms. Depending on time and energy level, you could have them respond on their own, or in small groups, and have everybody share one answer with the whole group.*