



Universal Design for Learning

Universal Design for Learning- Connecting to the curriculum for students who are deaf and/or hard of hearing with multiple disabilities

“In terms of learning, Universal Design means the design of instructional materials and activities that allows the learning goals to be achievable by individuals with wide differences in their abilities to see, hear, speak, move, read, write, understand English, attend, organize, engage, and remember. Universal Design for Learning is achieved by means of flexible curricular materials and activities that provide alternatives for students with disparities in abilities and backgrounds” (Orkwis & McLane, 1998, What is Universal Design section, para. 3).

The Universal Design for Learning (UDL) framework provides a flexible means to meet the educational needs for learners with low-incidence disabilities. These learners include students who are deaf or hard of hearing with additional disabilities. UDL emphasizes the need to provide cognitive clarity, a focus on differentiation instruction, and provides specifically design instruction for diverse learners. UDL places the burden for change on the curriculum and allows educators to meet the needs of all students by reducing barriers to the curriculum.

The three principles of UDL include:

1. Multiple Means of Representation (What) Learners differ in the ways that they perceive and comprehend information that is presented to them.
2. Multiple Means of Expression (How) Learners differ in the ways that they can navigate a learning environment and express what they know
3. Multiple Means of Engagement (Why) Learners differ in the ways in which they can be engaged or motivated to learn.

Below are some UDL strategies for students who are deaf or hard of hearing with multiple disabilities

Multiple Means of Representation: The WHAT of learning

Barriers may include: printed text, audio, images

1. Pictures, graphics, SmartBoard, video, closed caption, computer
2. Read books with textured pages
3. Use a variety of hands-on materials with different textures
4. Use teacher-made communication pictures
5. Create student made books about lesson (Squishy books, Experience books)
6. Manipulatives

Multiple Means of Engagement: The WHY of learning

Barriers may include: content, vocabulary, directions, difficult material

1. Use partner assisted scanning for writing
2. Use whole group shared reading
3. Provide Choice making opportunities during lesson (spoken language, sign language, pictures, objects, AAC)
4. Concrete representation of concepts (objects)

Multiple Means of Expression: The HOW of learning

Barriers may include: writing, speaking, drawing

1. Low Tech (spoken language, sign language, pictures, objects choice boards, eye gaze options, pointing, smiling, crying, increased muscle tone)
2. High Tech (AAC Device, BigMac, Adapted keyboard) (computers, computer writing software)

UDL Strategies for students who are deaf or hard of hearing

1. Closed Caption on classroom informational videos
2. Note-taking
3. Visual representation
4. Facing the student; eye contact when speaking
5. Repeating questions from other students
6. Post announcements and instructions on board or Blackboard
7. Post PowerPoint slides and lecture and/or a list of vocabulary and concepts
8. Pause often as you speak to let interpreter communicate what you have said
9. Give copy of reading material to student and interpreter in advance
10. Additional vocabulary instruction
11. Group work activities

UDL Lesson Plan Science (Baking)

Extended Essential Standards and Objectives:

EX.5.P.2 Understand the structure and properties of matter before and after they undergo a change.

EX.5.P.2.2 Compare physical and chemical changes of matter.

5.P.2 Understand the interactions of matter and energy and the changes that occur.

5.P.2.3 Summarize properties of original materials, and the new material (s) formed, to demonstrate that a change has occurred

The teacher has the flexibility to:

1. Use a variety of materials, symbols and objects to teach concepts
2. Give students choices
3. Provide opportunities for motivating and high interest lessons

Representation

Read scanned book on Smart board or projector.

Read Whopper Cake book with textured pages.

Variety of hands-on materials with different textures (baked and not baked items)

Use teacher-made communication pictures

Use premade sentence makers to describe what happens to the items when they are baked.

Using AAC to share sentences

Mix and bake ingredients to show the change in materials.

Create student made books about the process with Haiku Deck.

Engagement

Use partner assisted scanning for writing

Use whole group shared reading

Choice making during selection of baked and non-baked items

Partner assisted scanning for experiment/book making

Mix and bake items

Expression

Students will identify baked items in book.

Students will use partner assisted scanning to complete experiment and writing activities.

Students will feel the difference between baked and non-baked items.

Students will use AAC for responses to determine whether items are baked or not baked.

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