

Tips for Teachers:

Supporting early literacy through universal design and assistive technology

Tips for Teachers is a continuing series of practical strategies that teachers and other caregivers can use in their classrooms and other early learning settings. These tips are based on research evidence and professional knowledge.

Key terms

Universal Design for Learning (UDL): Universal design for learning is a concept or philosophy for designing learning environments, curriculum content, learning activities and materials to be accessible to children with the widest possible range of functional abilities

Curriculum Modification: A curriculum modification is a change to the ongoing classroom activity or materials in order to facilitate or maximize a child's participation in planned activities and routines.

Assistive Technology (AT): Assistive technology refers to any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized that is used to maintain or improve the functional capabilities of a child with a disability. AT supports can be considered low- to high-technology.

USING UNIVERSAL DESIGN FOR LEARNING (UDL) TO SUPPORT EARLY LITERACY

- Set up the classroom so that **all** children can physically access and participate in early literacy activities (e.g., sufficient space for wheelchairs in the early literacy center, books on low shelf)
- Provide a cozy and comfortable area where all children can look at books of their choice



- Provide an area with a table or other surface which is accessible for **all** children (e.g., table is the appropriate size for young children, table is kept clear and ready for writing)
- Provide a variety of high-interest books that appeal to and meet the needs of all children (e.g., books with high-contrast visual images, touch-and-feel books, 'big' books, books with electronic sound, stories with repeated lines books with thick cardboard pages)
- Provide a variety of writing implements (e.g., crayons, pencils, markers, colored pencils) and types of paper (e.g., construction, lined, unlined, colored) or writing surfaces (e.g., table top, easel, whiteboard)

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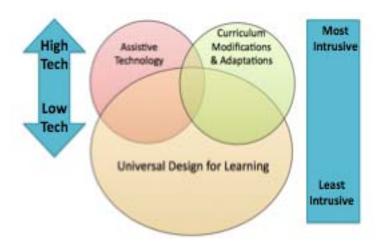
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- Provide a variety of games and materials (e.g. puzzles, alphabet stamps, three dimensional letters)
 that help children to name and print alphabet letters
- Select books and products that are compatible with assistive technologies (e.g. a book with narration that is compatible with a voice output device)
- Provide time in the classroom schedule to enjoy books and engage in literacy activities in a variety of settings (independently, with peers, in small groups, with the whole class)

USING CURRICULUM MODIFICATIONS AND/OR ASSISTIVE TECHNOLOGY TO SUPPORT EARLY LITERACY

- · Provide early literacy opportunities and activities that reflect children's experiences and interests
- Use curriculum modifications and/or AT to help a child participate in early literacy activities
- Plan for different supports throughout the day that meet the child's needs within the context
 of the activity
- Examples of curriculum modifications to support early literacy activities and opportunities include:
 - Utilizing peers to help a child learn important objectives. For example, if a child is having difficulty participating at the library center, pair the child with a peer who can show the child how to "read" a book.
 - Providing invisible support by purposefully arranging naturally occurring events within one activity.
 For example, a teacher might plan to give a reluctant talker a turn after a particularly talkative child. This gives the reluctant child an idea about what to say or do.
 - Providing support by modeling how to enjoy books or joining the child in reading to support a child's participation.
 - Simplifying activities by breaking them into smaller parts. For example, if children have difficulty
 using the compact disc or tape player, a teacher might make this task more simple by labeling the
 start and stop buttons with green and red tape.
- Examples of low-tech assistive technology (AT) to support early literacy activities and opportunities include:
 - Providing page fluffers
 - Re-binding a book to lay flat
 - Using peel away photo albums
 - Using Velcro to support book positioning
 - Providing two-dimensional and/or three-dimensional props
 - Using highlighter tape to mark repetitive lines
 - See our module on curriculum modifications or the resource list that accompanies this learning suite for specific ideas on supports for early literacy

MAKING CHOICES ABOUT LITERACY SUPPORTS

- Think about how intrusive a curriculum modification or AT support might be for an individual child. Use the least intrusive support that will effectively meet the child's learning needs.
- If you are planning for use of an AT device, think about the options from low to high technology supports. Consider the appropriateness and effectiveness of low-technology supports prior to choosing a high-tech device. For example, if a pencil grip is effective in helping a child write, the use of a high-technology device such as an adaptive keyboard, becomes unnecessary



FAMILY INVOLVEMENT AND USE OF AT TO SUPPORT EARLY LITERACY

- Team collaboration among a child's caregiver, teacher, and service providers are the best way to plan for use of AT across home and school contexts
- Consider family preferences and how well AT will fit into existing family routines.
 Teams also must consider how curriculum modifications and/or AT supports will meet the needs of families from diverse backgrounds.
- Provide families with ongoing information and support about use of AT. Make resources readily available across home and school contexts.

WHO CAN HELP WITH AT IN MY CLASSROOM?

- Program directors and supervisors can help by identifying potential AT resources that might be available in their programs or districts.
- Teams should work to identify individuals who can lend support and expertise about the use of the continuum of AT support