QuaverEd™

Creating an Accessible Learning Environment

The purpose of this guide is to support teachers in delivering instruction to children with disabilities, making the most of technology and best teaching practices to do so. Use the information in this guide to inform your instruction using Quaver Pre-K Curriculum resources.

This guide is organized into five parts:

1. What Is an Accessible Learning Environment?

2. Tips for Classroom Design

3. Tips for Instruction Design

4. Quaver Resource Design

5. Quaver Commitment to Accessibility

1. What Is an Accessible Learning Environment?

As a teacher in the 21st century classroom, you are presented with the enormous opportunity to teach children of diverse backgrounds and ability levels. It is important that you design both your classroom and your lessons to best meet the needs of children with disabilities.

The Americans with Disabilities Act (ADA) and the Individuals with Disabilities Education Act (IDEA) require all early childhood programs to "make reasonable accommodations to provide access for children with disabilities or developmental delays" (Division for Early Childhood of the Council for Exceptional Children [DEC/CEC] and National Association of Educators of Young Children [NAEYC 1993]).

An accessible learning environment incorporates the physical arrangement of the classroom and the behavioral expectations within the setting.

2. Tips for Classroom Design

A well-designed classroom environment helps ensure that all children are able to experience and benefit from your teaching throughout the day. It's important to pay special attention to detail to make sure the environment works equally well for children with disabilities. Consider these tips for accessible classroom design, which allow for the possible physical limitations children may experience:

- **Provide unobstructed, well-lit pathways.** Children in wheelchairs should be able to have unimpeded access and egress to your classroom. Children using crutches should be able to turn around without being obstructed by furniture. All pathways should be well-lit and easy to identify.

- **Create a time for independent exploration.** Children with visual impairments who navigate with canes should have the opportunity to explore the classroom without other children present. It is especially important to create this time when the environment is modified for specific activities, themes, or units.

- **Keep variety in mind.** Provide numerous areas for wheelchair positioning so children may stay actively involved in all classroom activities.

- **Consider neck strain.** To limit neck strain in children in wheelchairs, provide seating for others that places them on the same plane with the children in wheelchairs. Likewise, ensure that looking at classroom screens does not increase neck strain. Offer hand-held options to the children.

3. Tips for Instruction Design

In addition to a well-designed classroom space, it is important to design your lessons and instruction to accommodate all the children in your care. Children with disabilities in your class will have either an Individual Educational Program (IEP) or a 504 Plan. When designing your instruction for these children, please refer to the accommodations listed in their individual plan. This will allow you to best meet their needs. Talk with their case managers if you have any questions about their accommodations. Additionally, use the tips below to plan engaging lessons and activities for all your children. Designing your lessons to meet the needs of all children is the best thing you can do as a teacher.

Visual Impairments

- **Offer a wide selection of large-print books.**

- **Position magnifiers** throughout center areas in the classroom.

- **Ensure there is adequate lighting** in each work area, managing the glare in each.

- **Make sure verbal instructions use precise language** (do not rely on gestures and facial expressions).

- **Use the child's name** when seeking his/her attention.

- **Simplify print material:**
  - ‣ Minimize the amount of material on a page by cutting and pasting multiple pages.
  - ‣ Use high contrast when possible.

- **Limit time required for near work** to minimize eye fatigue.

- **Increase the quantity of oral activities.**

- **Encourage peer collaboration** and peer tutoring.

- **Adjust print and image size** on tablet devices to accommodate children with low vision.

- **Allow children with visual impairments to keep a tablet device** with them to encourage active participation in class discussions.

- **Provide an unobstructed view** of screens.

Hearing Impairments

- **Encourage participation of signing children** by asking them to teach the class a few keywords each week.

- **Promote sign language learning** within the classroom.

- **Allow frequent breaks** to minimize fatigue.

- **Encourage peer collaboration** and peer tutoring.

- **Ask the children to describe what they see** in the classroom or on the screen.

Intellectual Impairments

- **Encourage peer collaboration** and peer tutoring.

- **Offer a wide selection of picture books**, encouraging the children to tell the story.

- **Encourage the use of manipulatives** during instructional time.

- **In group activities, include questions that are concrete** in nature, for example, "What is the student holding?" or "Where did the squirrel hide the nut?"

- **Invite class responses and comments,** but avoid calling on the child spontaneously to give the child time to process what he/she sees and hears.

- **Encourage the child to indicate** if and when he/she is ready to contribute to the discussion.

- **Encourage children to participate** by directing their attention to specific items in the classroom or on the screen.

Physical Impairments

- **Encourage oral responses,** especially with children who have manual coordination issues.

- **To avoid neck strain,** when addressing a child in a wheelchair, come down to their level to speak.

- **Provide seating for other children** that places them at the same level as children in wheelchairs.

- **Remove physical obstacles** in the classroom.

- **Provide alternative, comparable activities.**

- **Teach class members** about navigating with wheelchairs and crutches.

Sensory Impairments

- **Break tasks into smaller portions.**

- **Teach pro-social behaviors** to encourage appropriate expression of frustration and overstimulation.

- **Encourage peer collaboration** and peer tutoring.

- **Allow the use of soothing devices** and/or stuffed animals to assist with self-regulation.

- **Provide a quiet, low-light area** for children to access when feeling overstimulated.

- **Have headphones available** to block extraneous sounds.

- **Provide wide pathways** to reduce anxiety in enclosed areas.

4. Quaver Resource Design

Technology can also be an incredible support for you as you seek to create and foster an accessible learning environment. Online curriculum resources like those included across QuaverEd products enable you to address the needs of diverse learners and adapt your lessons to best meet their needs. Below we explore ways the interactive resources and functionality throughout QuaverEd have been designed to support you in teaching children with disabilities.

- **All feedback intended for children to understand** is provided with both an audio and visual cue.

- **Both uppercase and lowercase options** are available to support early readers with learning disorders such as dyslexia.

- **Lyrics on song activities and in stories** are highlighted and include graphic representations of key terms.

- **No drag and drop functionality** is used to allow ease-of-use for children on classroom devices.

- **Learning Centers include a variety of tactile options** for children with sensory disabilities.

- **Lesson Guides include a variety** of questioning techniques to guide teachers in teaching all children.

5. Quaver Commitment to Accessibility

As an online curriculum resource serving multiple subject areas, QuaverEd is committed to complying with existing web-based accessibility requirements. While Quaver resources are not intended to be used by a child independently of a teacher, these guidelines can still help ensure an accessible learning environment for all.

Screen Controls

- **Zoom (enlargement) features** are available from the browser.

- **Brightness/contrast controls** are available from the system settings and will not be overridden by the program.

- **Start/Pause/Stop buttons** are available for all time-sensitive content.

- **Volume controls are provided** to increase audio amplitude of different tracks where necessary; otherwise, the system volume setting can suffice.

- **Functionality controls** are consistently named and in the same location.

- **Keyboard controls** will be available for all core functions, such as navigating between screens or returning to the home page.

- **When a control is activated,** there are visual and audio indications the action is being taken.

Screen Layouts

- **Plain language text** is used throughout the program.

- **Layouts are logically and consistently arranged.**

- **Context and orientation language** for the curriculum is provided in the Teacher Notes.

- **User interface and maps** are designed to ease navigation through the site.

- **All icons and actionable buttons** are large and accompanied by text, unless the control is a commonly used standard, such as a triangle for a play button.

- **Screen images without text descriptions or captions** can be explained by the teacher.

- **Color is not the sole determinant** of required information.

Video/Animations

- **All videos with speaking audio** have closed captioning.

- **Keywords are also highlighted in text** in video episodes.

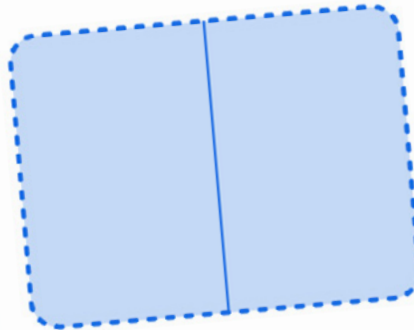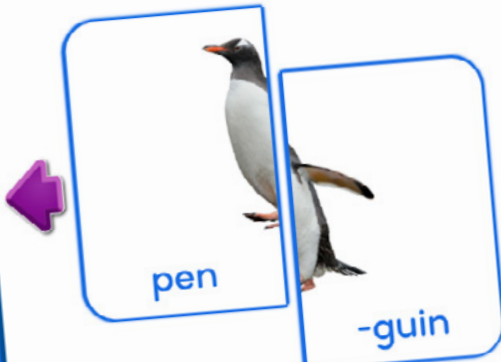- **Animations that need explaining** are also described in text.

Audio/Music Tracks

- **Lyrics are highlighted** and synchronized in songs.

- **Visual Animations are provided.**

- **Transcripts of audio instruction** or other information are provided.

Notifications

- **All notifications of correct or incorrect answers** are provided both aurally and textually.

- **Our design minimizes unintentional actions** by the user.

Flashing Objects

- **No buttons or other objects will flash** at a rate between 2 Hz and 55 Hz.

These are some of the conventions we use to review our resources. The process is ongoing. QuaverEd, LLC is fully committed to providing online instructional materials that are in compliance with common accessibility standards. We will comply with the accessibility guidelines of both the federal government, as described in Federal Rehabilitation Act, Section 508, and the World Wide Web Consortium guidelines, as described in W3C Web Content Accessibility Guidelines (WCAG2.0).

In addition, as new guidelines are issued, we will comply with those as well to the extent applicable to our product. Our intent is to be accessible to all persons with disabilities. In many respects, we already are in compliance.

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