A GUIDE TO...

VISUAL SUPPORTS

Cultivate and encourage ALL young children (0-5; with and without disabilities) to explore STEM concepts through activities as independently as possible with adaptations in their natural environments.

Every child is different, and these are only suggested adaptations. Do what works best for the child. The child's therapist can give you more ideas.

Visual supports are adaptations that use pictures, objects, or simple drawings (icons) to help young children understand, remember, and communicate. Visual supports make learning more concrete, predictable, and easier to follow. They give children something they can see, not just hear, to support learning and following directions. Prompts, gestures, and sign language can also be used along with visual supports. Visual supports can benefit all children, and they are especially helpful for young children with developmental disabilities.

Types of Visual Supports:

- **3D Objects (Real Objects):** Real items or miniature versions of items that represent an activity, idea, person, place, or thing.
- **Icons or Drawings:** Simple images, clip art, or icons that stand for an activity, idea, person, place, or thing. They may be bold outlined color drawings or black-and-white line drawings.
- **Photos:** These are actual pictures of people, places, or items.

Visual Supports Tools:

- **Choice Boards:** A board or page showing pictures, objects, or icons of different options the child can choose from.
- **Digital Visual Supports:** Pictures, icons, or schedules displayed on a phone, tablet, or interactive board.
- **First–Then Boards:** A visual tool that shows two steps: what happens first and what happens next.
- **Visual Schedules:** A set of pictures, objects, or icons that show the order of events in a day or part of a day or an activity.

VISUAL SUPPORTS

- ▶ Hierarchy of Visual Supports
- ▶ Examples of Visual Supports
- ▶ Selecting the Best Visual Support for the Child
- ▶ How to Use Visual Supports
- ▶ Visual Support Resources

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HIERARCHY OF VISUAL SUPPORTS

The "hierarchy of visual supports" means using different kinds of pictures or objects to help young children understand and communicate, starting with the most concrete (real) and moving toward more abstract (less concrete) forms.

For young children, this might begin with real objects, like pointing at a real car to show it is time to go for a ride. The next level could be a toy car or a photo of a car, then an icon or drawing of a car, and later when the child can read, just the written word "car."

Some children can understand spoken words alone, but many young children, especially those who are still learning language and children with disabilities, understand better when they can see something to go with what they hear.

Using this step-by-step approach helps adults choose the type of visual support that matches a child's developmental level and gradually build their understanding over time.

Concrete

3D/Real Objects

Symbolic Objects

Photos

Car

Colored Icons or Drawings

Car

Line Drawings

Car

Words

Abstract

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EXAMPLES OF VISUAL SUPPORTS

Type of Visual Support	Home Example	Child Care Example
3D Objects (Real Objects): Real items or miniature versions of items that represent an activity, idea, person, place, or thing.	A spoon to mean "Time to eat."	A paintbrush to mean "Art time."
Icons or Drawings: Simple clip art or icons that stand for an activity, idea, person, place, or thing. They may be bold, outlined color drawings or black-and-white line drawings.	A drawing of something they might notice on a walk.	A simple icon of blocks to show where the blocks go.
Photos: Actual pictures of people, places, or items.	A photo of grandparent(s) to show that they are visiting.	A photo of the playground to show outdoor play time.

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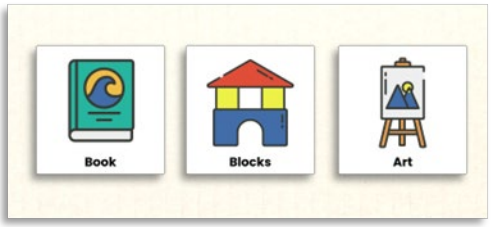
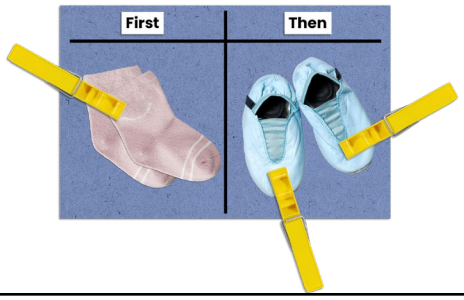
Visual Support Tool	Home Example	Child Care Example
Choice Boards: A board or page showing pictures of different options the child can choose from.	A board with pictures of snacks to choose from for afternoon snack.	A picture board with different play centers (Books, Blocks, Art) for children to pick from during free play. 
Digital Visual Supports: Pictures, icons, or schedules displayed on a phone, tablet, or interactive board.	A tablet app showing the bedtime routine with check-off steps.	An interactive whiteboard showing the day's schedule with pictures.
First–Then Boards: A visual tool that shows two steps—what happens first and what happens next.	"First socks → Then shoes." 	"First clean up toys → Then go outside."

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Visual Support Tool	Home Example	Child Care Example
Visual Schedules: A set of pictures, objects, or symbols that show the order of events in a day, part of a day, or an activity.	Icons showing "Breakfast → Brush teeth → Wash hands → Get dressed." for a child transitioning from 3D objects to icons.	A chart showing "Circle time → Block time → Outdoor play → Snack."

SELECTING THE BEST VISUAL SUPPORTS

Every child learns in their own way. The first step is to carefully watch and listen to how the child takes in information.

- Do they notice and respond more to real objects, bright colors, movement, or photos of familiar people, places, and things?
- Do they pay more attention when visuals are big and bold, or when they are small and detailed?

Notice what the child shows interest in. Share what you have observed and the child's learning goals with the child's care team (therapists and specialists). These professionals know how to match visual supports to a child's developmental level and needs. They can suggest which images, layouts, or assistive technology may work best. The list below offers some suggestions, but it is not exhaustive and may not reflect your child's development and needs.

- Real objects, high-contrast icons and pictures, or photos of familiar people and items with background removed may work better for some children with vision differences.
- Photos from the child's own environment that show the exact people, items, or places the child will use or go to may work better for some children with thinking and learning differences.
- Use visuals that are easy to hold, touch, and point to for some children with motor disabilities or sensory differences.

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Here is a checklist for selecting the best format for visual supports for the child's development and needs:

3D/Real Objects:

- ☐ Is the object safe (not a choking hazard; not sharp)?
- ☐ Is the object child-sized (the child can easily hold it if they choose to)?
- ☐ Is the object something the child already knows and uses often?
- ☐ Does the object have a clear connection to the routine or activity?

Quick Tip: Be consistent
Always use the same object/photo/icon and language for the same purpose. You can pair it with gesture or sign language to help the child understand.

Photos/Icons:

- ☐ Is it simple and uncluttered (only one main item or idea)?
- ☐ For children with significant vision needs, is it high-contrast or easy to see for the child?
- ☐ Does the photo/icon have a clear connection to the routine or activity?
- ☐ Is it the right size for where and how it will be used?
  - ☐ **In-hand:** 2" x 2" to 3" x 3" usually works best for choice boards, "First/Then" cards, or individual prompts the child can hold or carry.
  - ☐ **On-wall:** 4" x 4" to 6" x 6" usually works best for visual schedules or labels posted on walls.
- ☐ Does it have a simple word beneath to support early literacy and language?

Quick Tip:
Use a photo of the child doing the activity. This makes the visual support more personal, easier to understand, and more meaningful for the child.

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HOW TO USE VISUAL SUPPORTS

Once you've chosen the right visual support for the child's development, needs, and learning goals, the next step is using it in real moments—whether during daily routines or learning activities. The goal is for the child to understand what the visual means and use it to support the child to engage in activities.

1. **Teach in the natural moment**
   - Show or point to the visual when the related action is happening. For example, display a spoon (real object) or picture of a spoon during mealtime and say "Eat" while pointing to or holding the cue. Keep your voice calm and clear. Ensure that the visual support and you are within the child's line of sight.
   - Pair the visual with a simple gesture or sign so the child connects it to the action—such as showing the "book" picture, making the sign for "book," and then reading together.
   - Always use the visual where it's needed. If it's for "wash hands," show it right at the sink before turning on the water. Children learn best when the visual is tied to the real-life activity.
2. **Give time to respond**
   After showing and modeling, pause so the child can react. They might begin the activity, look at the visual, copy the gesture, or say the word. Respond right away and praise their efforts.
3. **Repeat and be consistent**
   Use the same visual for the same purpose every time. Over time, the child will recognize and respond to it more quickly. Consistency builds trust and understanding.

For more on how to teach and instruct, including modeling, prompting, wait time, and reinforcement, please visit **A Guide to Teaching Practices**.

Autumn/Fall

Quick Tip:
For photos/icons that show abstract ideas (like processes or abstract concepts), take time to explain what they mean using simple words, examples, or actions within the activity or routine.

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VISUAL SUPPORT RESOURCES

There are many tools to make visual supports for young children. Some options are free, while others require a paid subscription or one-time purchase (such as Boardmaker, Canva, LessonPix). These tools often provide pictures, symbols, or templates that can be customized to help children follow routines, make choices, and communicate. Depending on what works best for the child, setting, and learning goals, you may choose free tools or explore paid products that offer larger image libraries and more design features.

Below is a list of some free options:

Name	What It Is	Format	How You Can Use It
Clipart	Simple, ready-made drawings or icons from online sources.	Print	Use for schedules, labels, or teaching materials.
Electronic First/Then Board	A digital "first/then" visual schedule.	Digital	Show "what's now" and "what's next" ("First clean up, then outside") to help children follow routines.
Google Slides / PowerPoint	Free or built-in slide tools for creating visuals.	Both	Make simple digital boards you can view on a phone, tablet, or computer.
Head Start Visual Supports	Free visuals and icons provided by Head Start programs.	Both	Download, print, or display visuals to help children follow routines and communicate in home or classroom settings.
STEMIE Visual Cue Library	A free collection of ready-to-use icons.	Both	Download and print visual cues to support STEM learning opportunities for young children.

REFERENCES

- Dees, R., Sam, A., Waters, V., & AFIRM Team. (2023). Visual Supports for Toddlers. The University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Institute, Autism Focused Intervention Resources and Modules for Toddlers (AFIRM for Toddlers). **http://afirm.fpg.unc.edu**
- Mirenda, P., & Locke, P. A. (1989). A comparison of symbol transparency in nonspeaking persons with intellectual disabilities. *The Journal of Speech and Hearing Disorders, 54*(2), 131–140. **https://doi.org/10.1044/jshd.5402.131**
- National Center for Pyramid Model Innovations (NCPMI). (2020). Visual Supports for Routines, Schedules, and Transitions [PDF]. ChallengingBehavior.org. **https://challengingbehavior.org/docs/Routine_cards_home.pdf**
- The Center on the Social and Emotional Foundations for Early Learning (CSEFEL). (2010). Tips and Ideas for Making Visuals to Support Young Children with Challenging Behavior [PDF]. Vanderbilt. **https://csefel.vanderbilt.edu/modules/module3b/handout2.pdf**
- Waters, V., West, T., Lim, C., & Vinh, M. (2023). A Guide to Adaptations [PDF]. The University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Institute, STEM Innovation for Inclusion in Early Education (STEMIE). **https://stemie.fpg.unc.edu/resource/a-guide-to-adaptations/**
- Waters, V., West, T., Lim, C., Campbell, P. & Pedonti, A. (2023). A Guide to Teaching Practices [PDF]. The University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Institute, STEM Innovation for Inclusion in Early Education (STEMIE). **https://stemie.fpg.unc.edu/resource/a-guide-to-teaching-practices**
- Waters, V., Harradine, C., Yang, H-W., Eccesso, J., Neufeld, T., & FPG IT Web Services. (2026) Visual Cue Library. The University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Institute, STEM Innovation for Inclusion in Early Education (STEMIE). **https://stemie.fpg.unc.edu/collection/visual-cue-library/**
- World Wide Web Consortium. (2024). Web Content Accessibility Guidelines (WCAG) 2.2. W3C Recommendation. **https://www.w3.org/TR/WCAG22/**

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