Rockwall County Library

# Visual Supports for Students with Autism

Dr. Nicole Caldwell &
Cheryl Stewart M.Ed. CCC-SLP

# What are visual supports?

- A visual support is a visual item (such as a picture or video) used to communicate with a person who has challenges with using or understanding language.
- Examples of visual supports include videos, photos, drawings, objects, written words, or lists.

Autism Speaks (n.d.).

Image from www.schkidules.com

# Visual Supports are for everyone

What visual supports do you use in your life?

# Outline: Visual Supports for Learning

- What are visual supports for academics?
- Why are they helpful for students with autism?
- What is the research base for visual supports?
- How can you use visual supports to teach academics?

# Dr. Temple Grandin

"I think in pictures. Words are like a second language to me."

Source:
https://www.grandin.com/inc/visual.thinking.html

# Why are visual supports helpful?

- Students with autism experience challenges in language and communication (Rao & Gagie, 2006).
- They also may experience difficulty in language processing (Rao & Gagie, 2006).
- Students with autism may process auditory information more slowly than neurotypical students (Cashin & Baker, 2009).
- However, these students may show increased perceptual functioning when they process information visually (Samson, Mottron, Soulières, & Zeffiro, 2012).

# Research Base for Visual Supports

- Visual supports meet the criteria to be considered an evidence-based teaching practice for early childhood, elementary, and middle school students (Hume, 2008).

- Specific visual support examples:
  - Activity schedules are considered an effective teaching practice to help students with autism with a variety of academic and vocational skills, as well as increasing independence with performing sequences or steps in a process (Association for Science in Autism Treatment, n.d.)
  - Schedules are also considered an established teaching practice (Autism National Standards Report, 2015).
  - Modeling and video modeling are considered an established teaching practice for ages 3 - 18 years for academics, communication, interpersonal skills, reduction of problem behaviors, and sensory/emotional regulation (NAC Report, 2015).

# Visual Support Examples

## Picture Schedules

- Depicts a sequence of events or steps in a task that the student will complete.
- Can be made with photos or drawings.
- Good for:

  Routines, such as getting ready for school.

  A school schedule.

  A sequence of tasks to complete in class.

Image from www.schkidules.com

# Visual Support Examples

## Picture Schedules

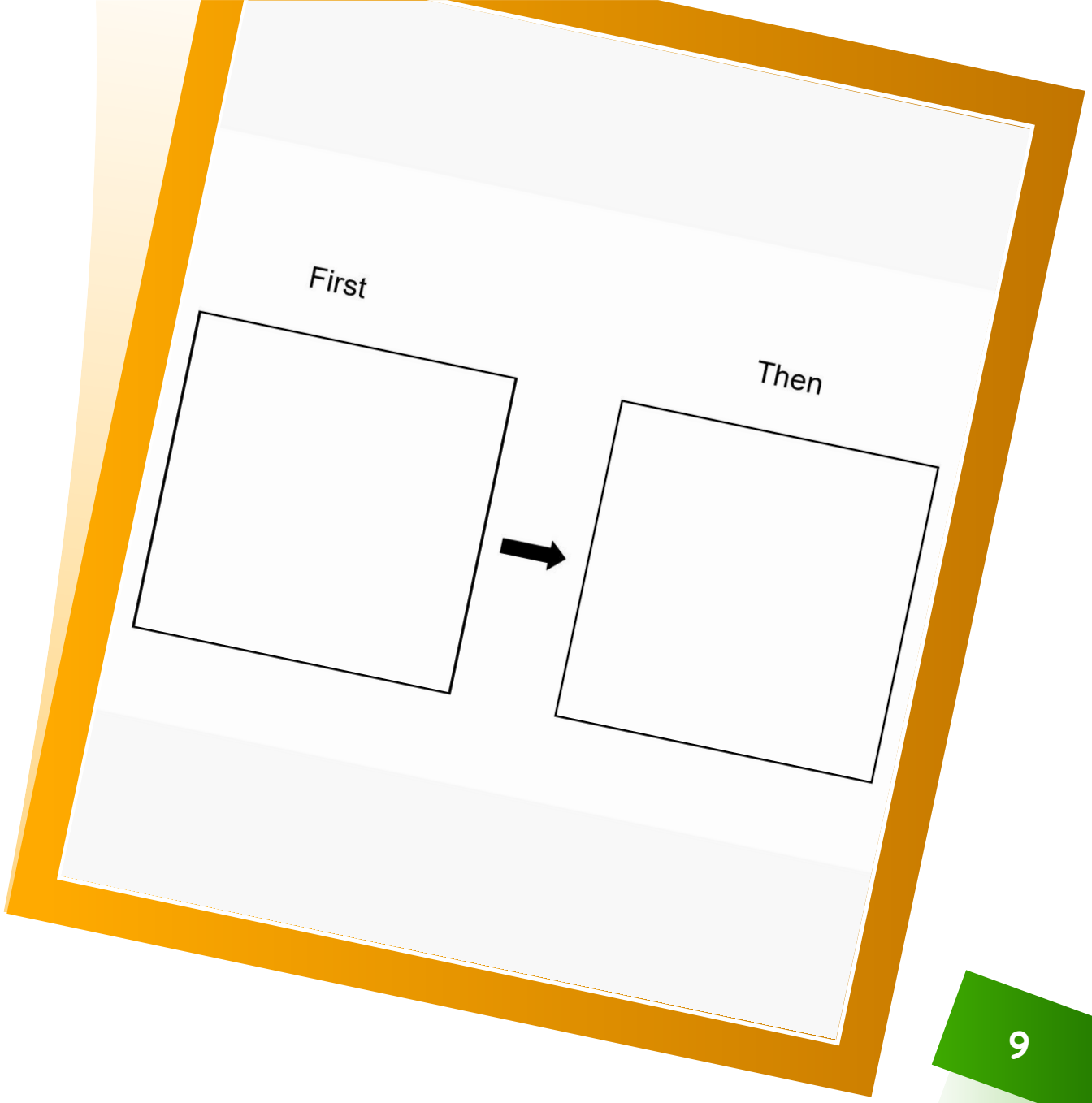
How to Start Using a Picture Schedule:

First-Then Chart

Stage 1: Two Preferred Activities

Stage 2: One short, less preferred activity followed by a preferred activity.

Stage 3: One less preferred activity followed by a preferred activity.



# Visual Support Examples

## Picture Schedules

How to Start Using a Picture Schedule:

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# Visual Support Examples

## Picture Schedules

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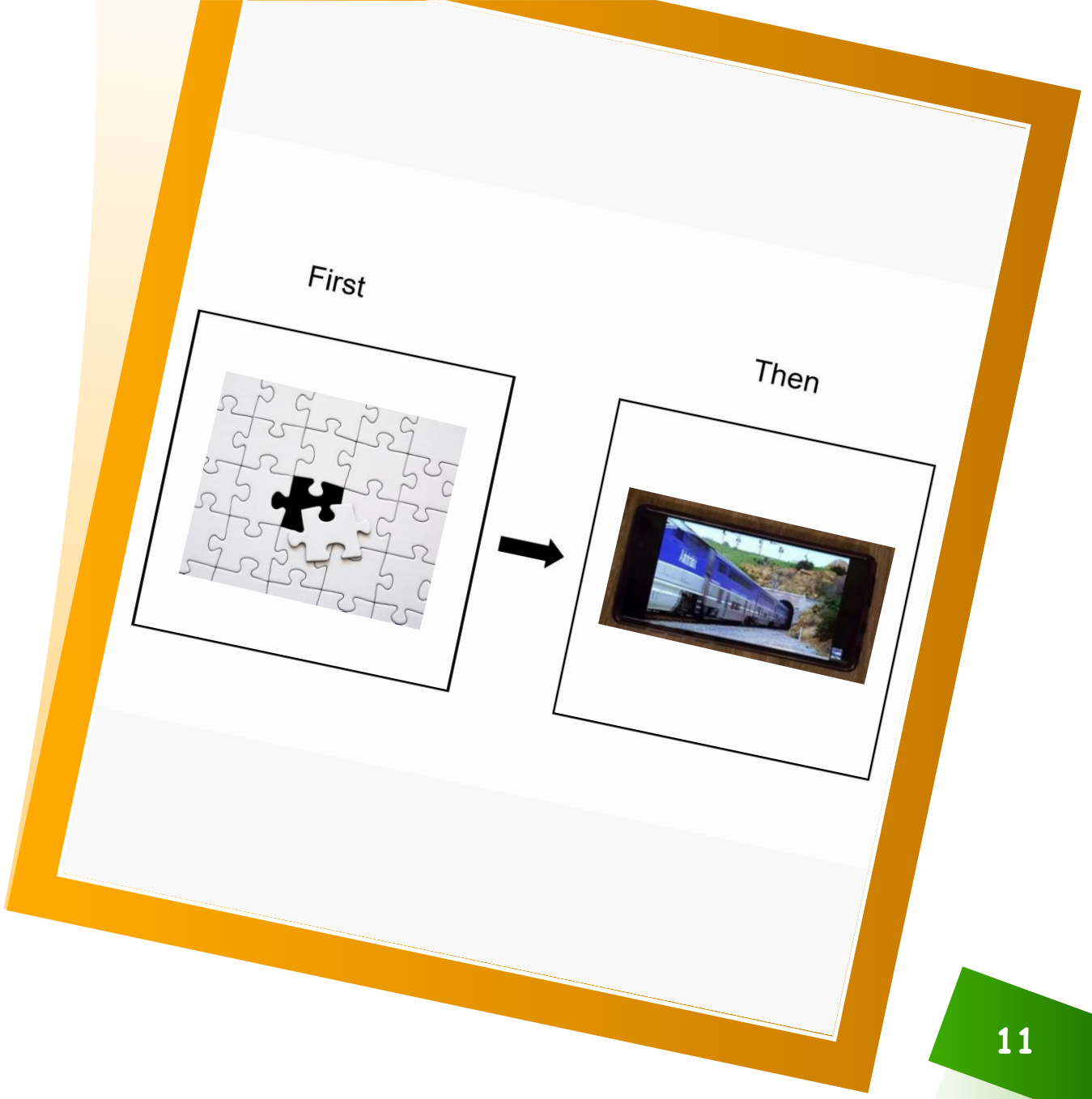

# Visual Support Examples

## Picture Schedules

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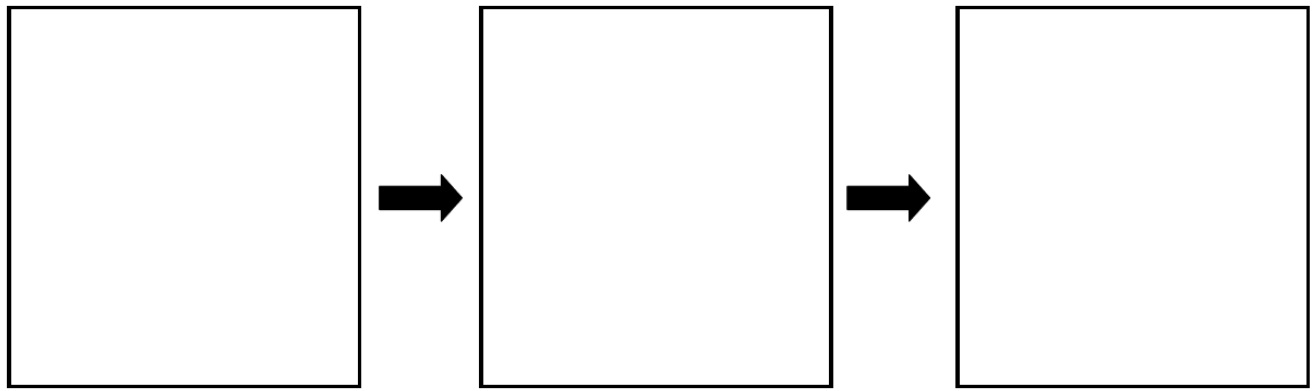
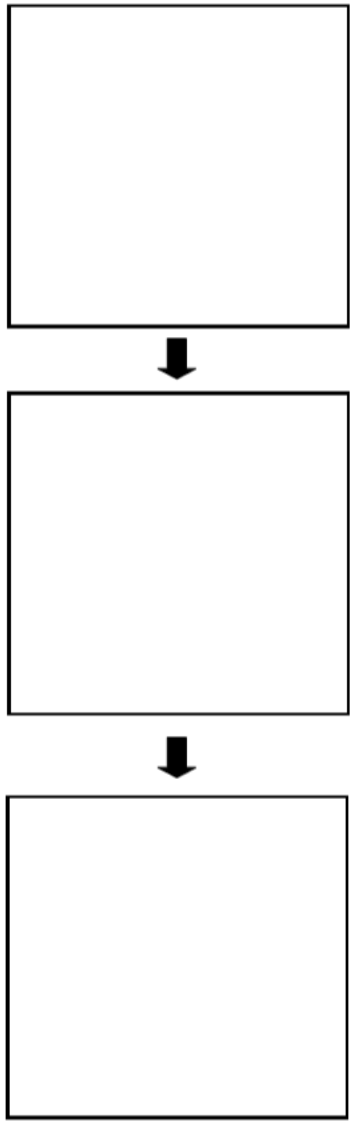
# Picture Schedules



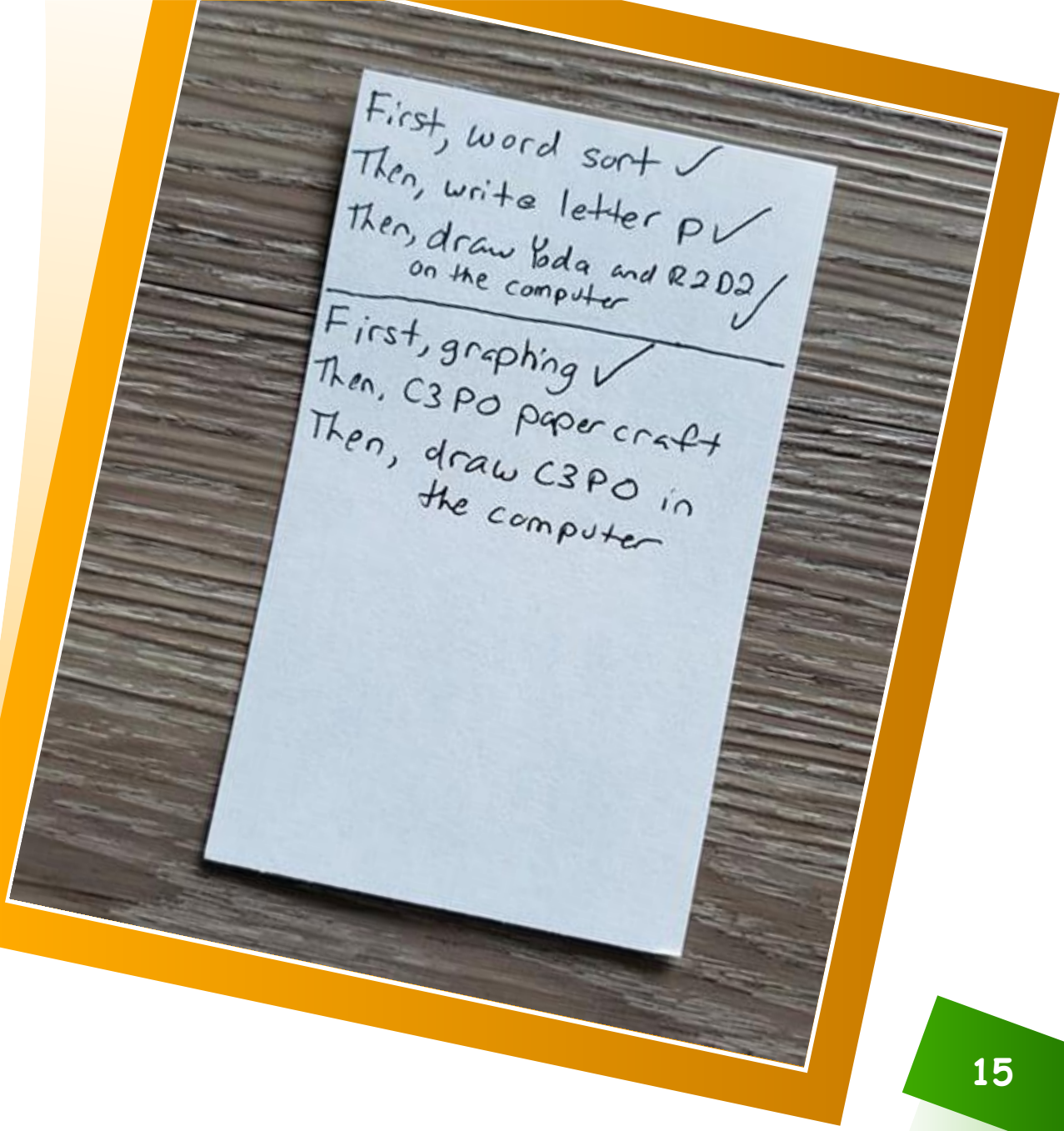


# Picture Schedules

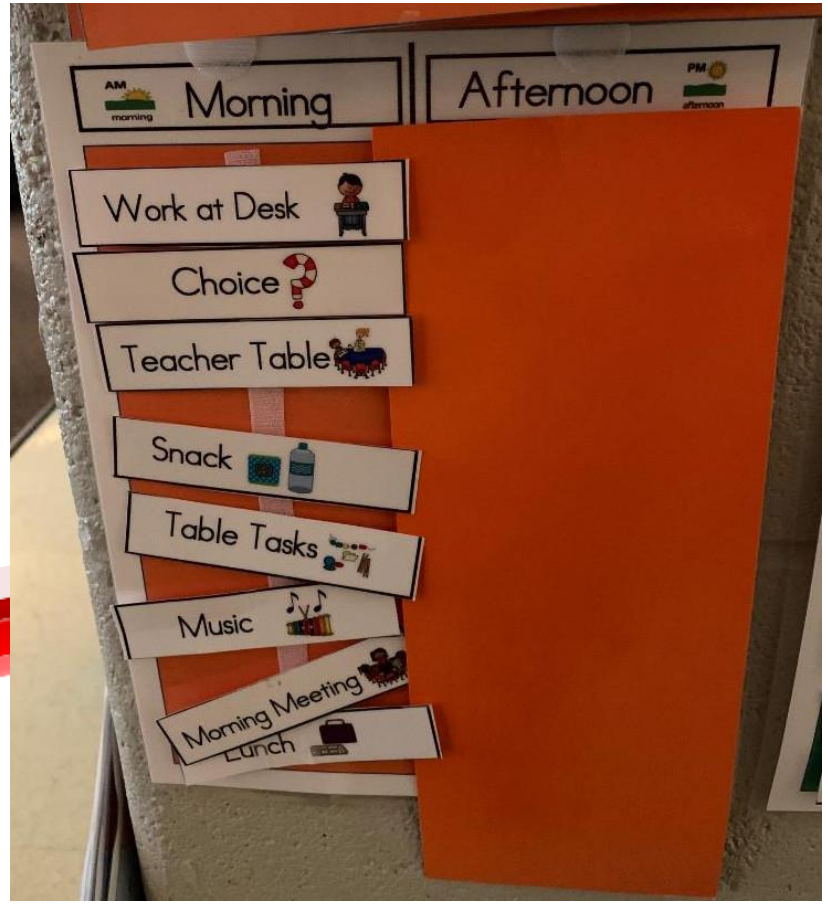
# Visual Support Examples

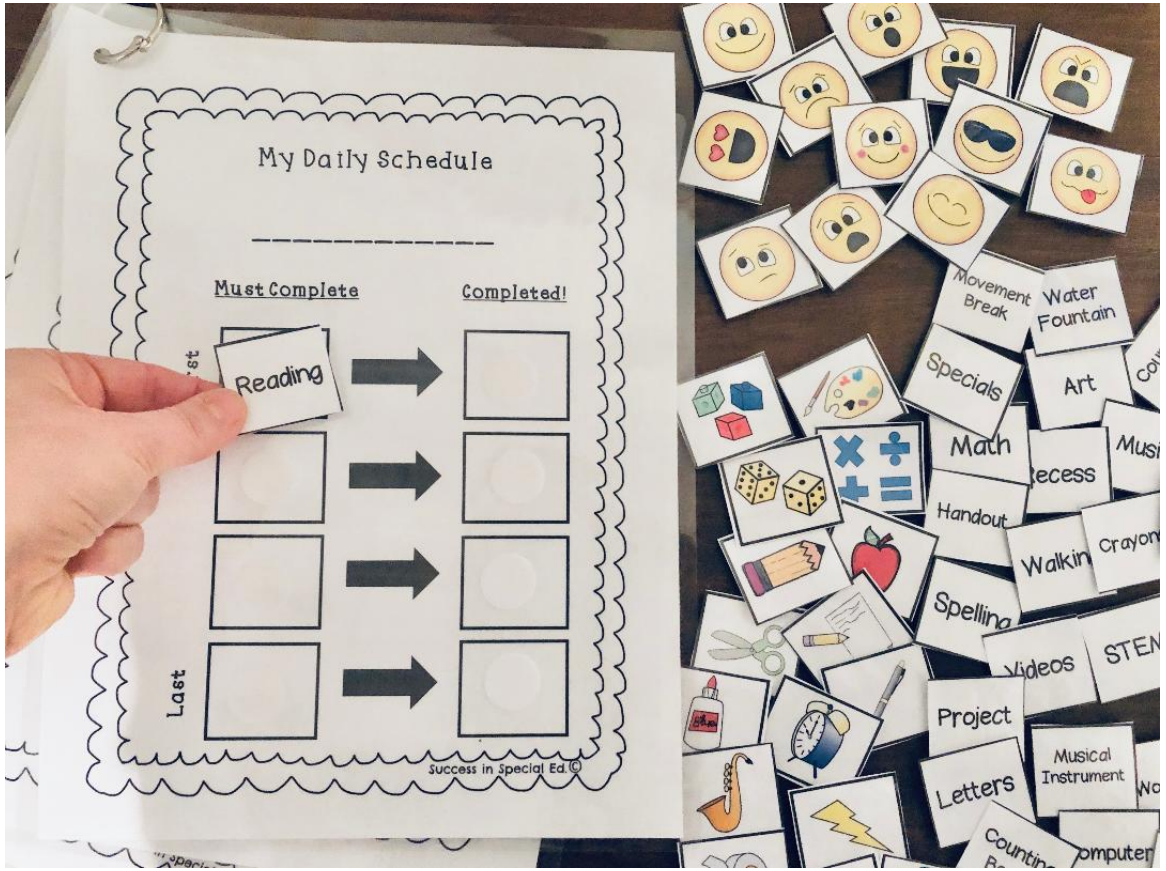
## Written Schedules

- Lists a sequence of events or steps in a task that the student will complete.
- Can be made with typed or handwritten.
- Good for:
  - Routines, such as getting ready for school.
  - A school schedule.
  - A sequence of tasks to complete in class.
- Additional links/examples in handout.



# Written Schedules



# Visual Support Examples

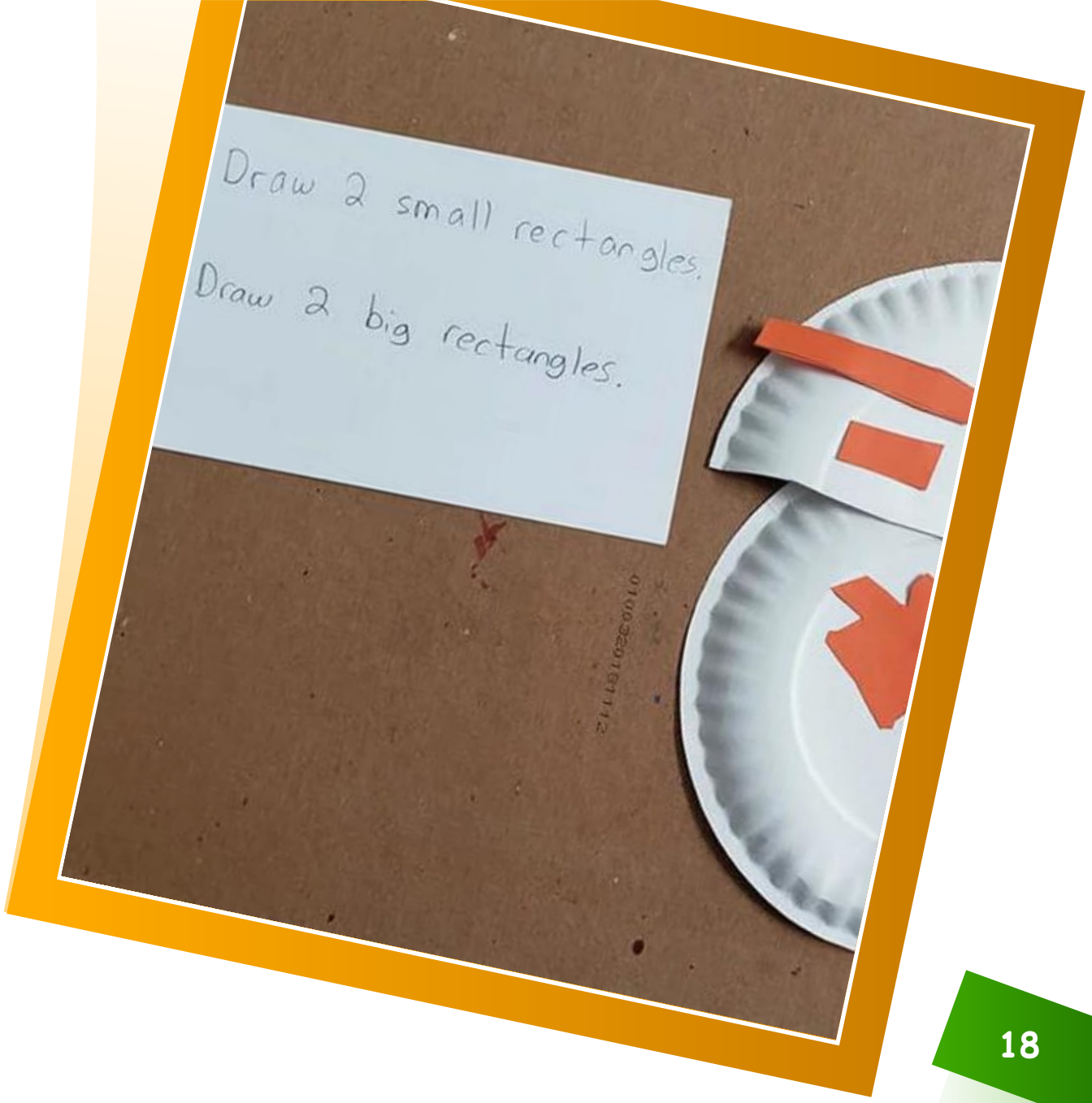
## Picture Instructions

- Shows sequence of steps in a single process.
- Example: picture recipes.
- Use with a task analysis.
- Another example here: https://www.autismhomeschoolsuccess.com/single-post/2019/07/03/A-Visual-Schedule-for-How-to-Remove-a-Flash-Drive-from-a-Computer

# Visual Support Examples

## Written Instructions

- Many of my students do better with visual processing, so it may help if I write down what they need to do.
- This can be instead of telling them out loud or in addition to verbally telling them.



# Visual Support Examples

## Video Modeling

- Using video technology to provide a visual model of a skill or behavior (Cox & AFIRM Team, 2018).
- Video demonstration of a skill or behavior.
- Example: video photography tutorials.
- For more info, see this video in my Facebook group: https://www.facebook.com/AutismHomeschoolSuccess/videos/292265898126835/

# Visual Support Examples

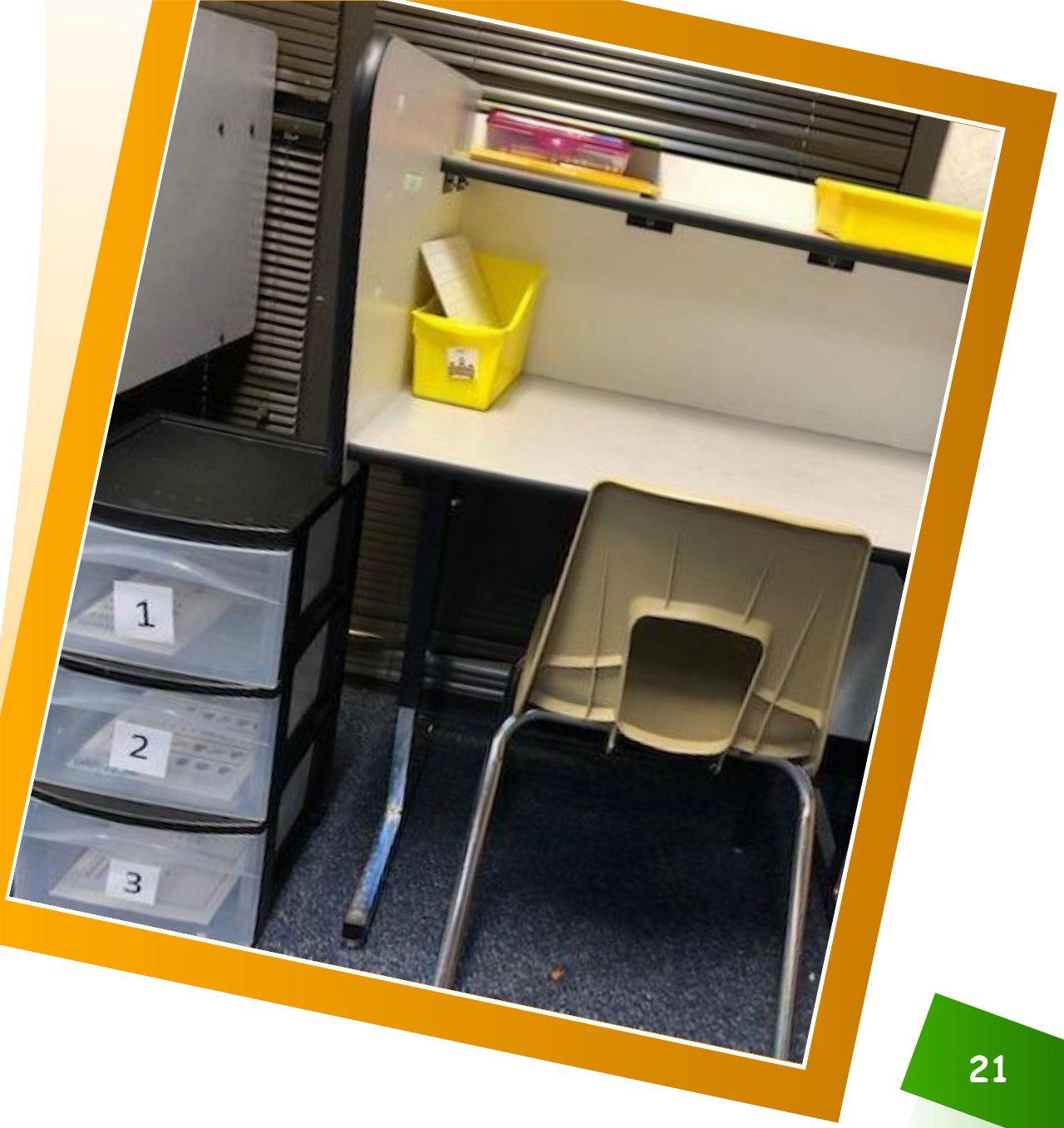
## Activities with Direct Matching

- I use activities like these folder games, where the student matches things one-to-one.
- In this game, the hearts in the folder have the answers and the student puts the heart with the math problem that has that answer on the folder with Velcro.
- This allows the student to clearly see what to do and when the activity is over (all hearts are matched).

# Visual Support Examples

## Independent Work Stations

- A visual set-up that allows the student to work independently.
- Use prompting/prompt fading at first.
- All activities should be ones the student can do independently, like the folder games on the previous slide.



# Visual Support Examples

## Graphic Organizers

- A teaching tool that helps students make pictures or visual connections of knowledge, thoughts, and information.

- Example here: https://www.autismhomeschoolsuccess.com/single-post/2019/12/10/Using-Story-Maps-for-Reading-Comprehension

- More examples: https://www.understood.org/en/school-learning/learning-at-home/encouraging-reading-writing/graphic-organizers-for-reading

# Visual Support Examples

## Visual Prompts

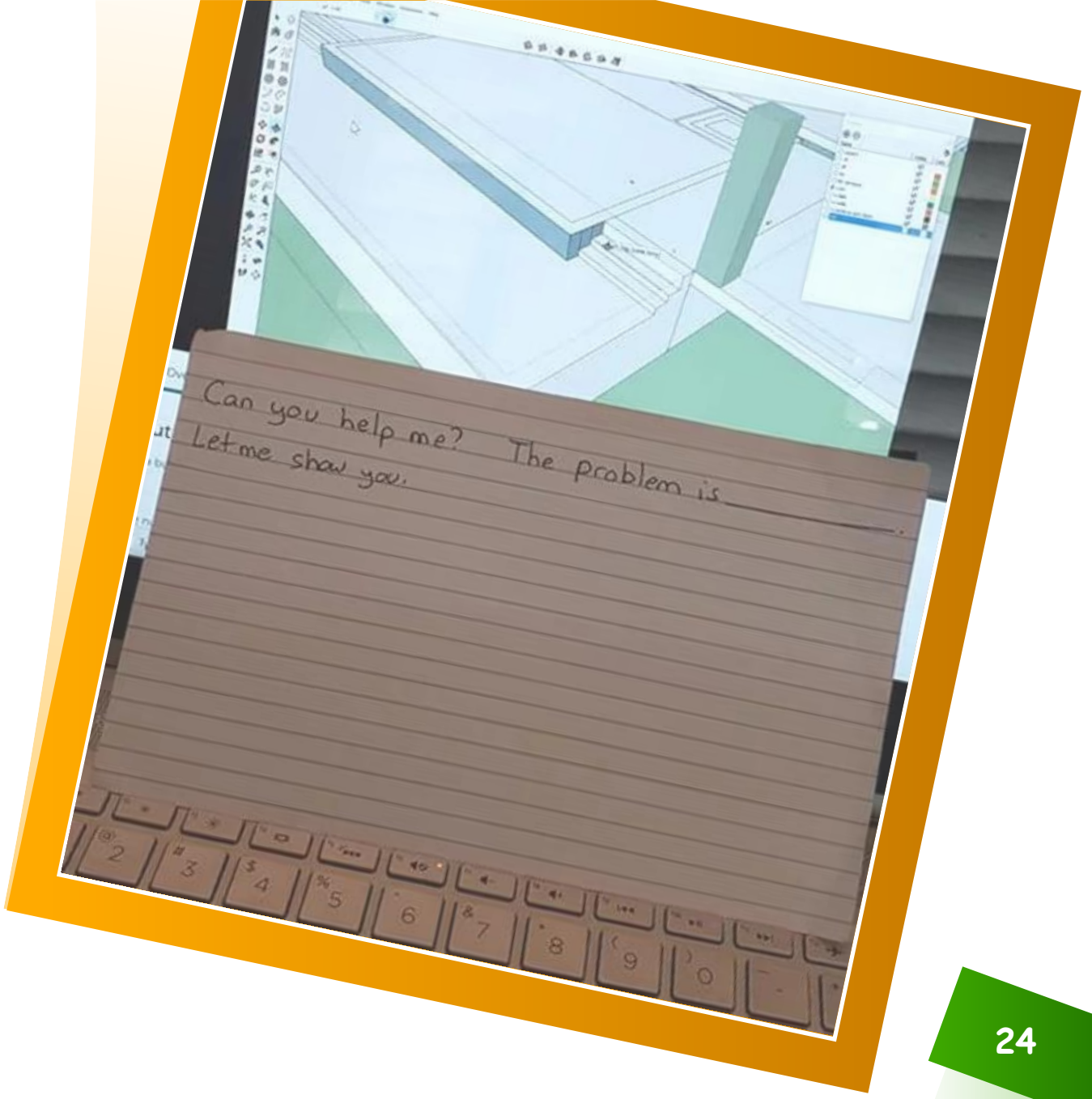
- Make the activity clear to the student.
- A non-verbal cue that shows the student what to do or what a correct answer is.
- You can see prompt fading in this example.
- More info here: https://www.autismhomeschoolsuccess.com/single-post/2019/07/20/My-Favorite-Way-to-Practice-Spelling-Words

# Visual Support Examples

## Visual Prompts

- Can also show a student what to say in a situation.

- Another example here: https://www.autismhomeschoolsuccess.com/single-post/2019/08/21/Increasing-Independence-with-Written-Prompts

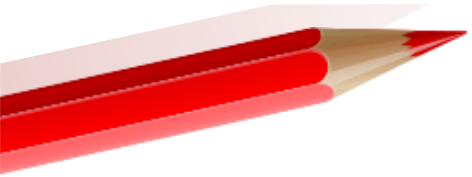



Last slide.

# Key Tips for Using Visuals

Visuals need to be:

- Simple
- Uncluttered
- Straightforward
- Easily recognized
- Easily understood
- Universally Understood

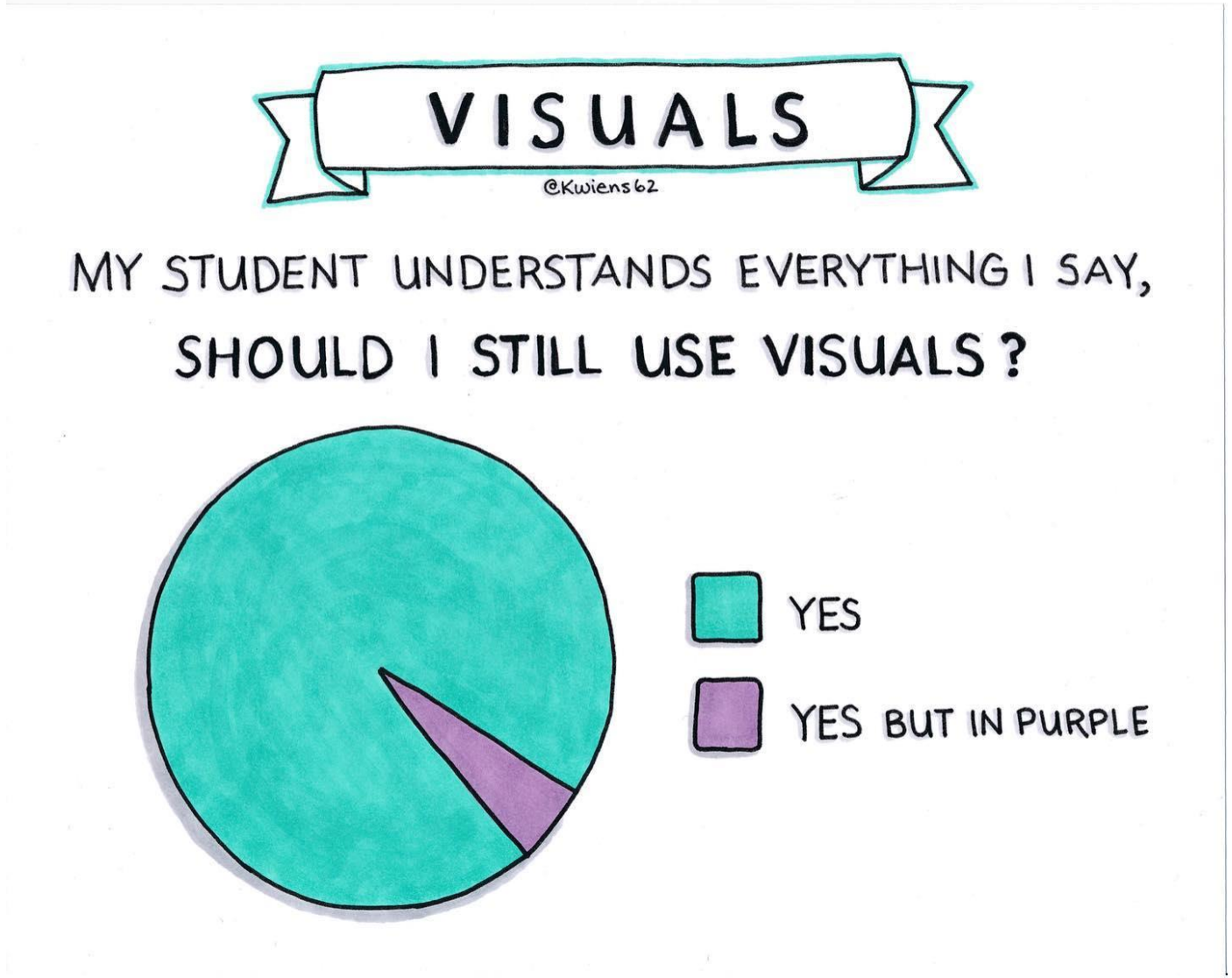


# Who to use visuals with

- Students on the autism spectrum
- Students with auditory processing difficulties
- Students with ADHD
- Both students who are non or low verbal, AND students who are verbal

Tip: Do not fade visuals as verbal skills improve,

but consider changing their form over time to match current skill level
(for example: from pictures to text)

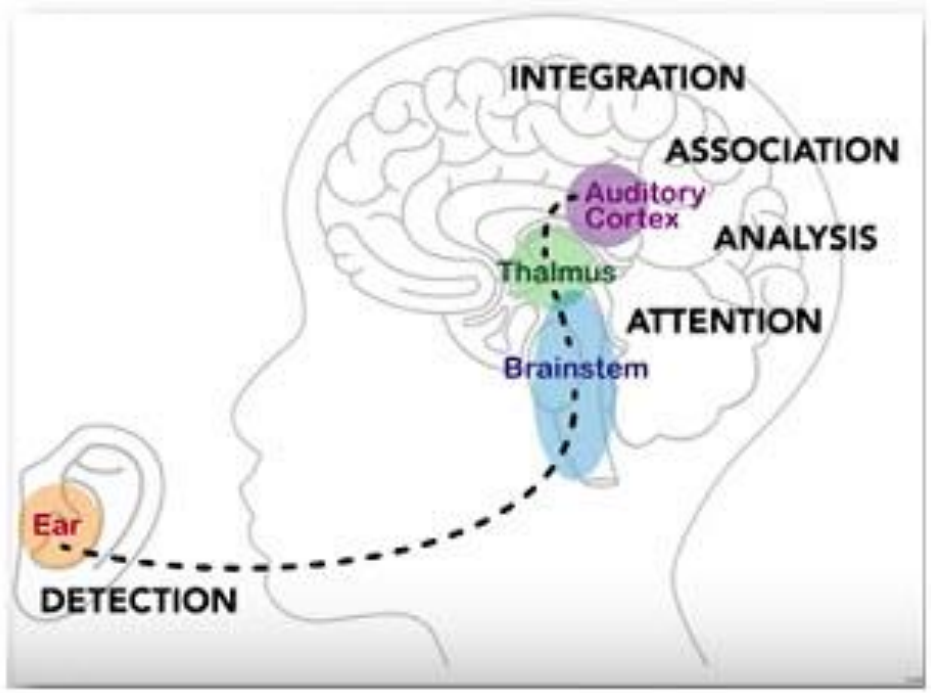

VISUALS
@Kwiens62
MY STUDENT UNDERSTANDS EVERYTHING I SAY,
SHOULD I STILL USE VISUALS?
YES
YES BUT IN PURPLE

# Using Visuals for Receptive Language/Communication

What kind of receptive language difficulties (understanding/comprehension) do people with Autism Spectrum Disorders (ASD) have?

- Auditory Attention: attending to auditory information
- Auditory Synthesis: once information is heard, processing what the information means
- Auditory Discrimination: hearing and understanding in the presence of noise

- Note: all of these things are also common in people with ADHD




https://www.autismspeaks.org/expert-opinion/autism-and-auditory-processing-disorder-whats-connection

# Auditory Attention

People with ASD have difficulty with attending to auditory information, as well as with shifting and re-establishing their attention

Information that is presented auditorily, due to its transient nature, may not be processed because they were not able to maintain auditory attention

# Auditory Synthesis

The length of the message often correlates to difficulties with correctly understanding what was said: in longer messages a person with ASD often hears only the last part of the message:

For example: I do not want you to give the dog your hamburger

May be processed as: give the dog your hamburger

# Auditory Discrimination

People with ASD often have difficulty understanding verbal speech when there is any type of background noise

I need to...
~~talk more~~
~~talk louder~~
~~talk closer~~
~~talk slower~~
...use visuals
@kwiens62

# Using Visuals to help with Expressive Language

- Visuals can be used to increase expressive language skills in both people who are non-verbal and those who have verbal skills
- Visuals can serve as reminders (cues) to a person about the word they want to use
- Visuals can serve as reminders (cues) to a person about the word order for what they want to express
- Visual supports for expressive language decrease the cognitive load for verbalization and allow the individual to focus on talking

# Types of Visuals: Expressive Language

- Low-Tech (No Tech) – no voice output
- High Tech: Voice Output

# Low Tech Visuals

- Any of the previously mentioned types of visuals can also be used as tools to help with expressive language
- In particular, choice boards and environmental labels can increase the ability of a person to express themselves verbally of by using the visual
- Individuals can use the visual tools by pointing to pictures/words that are available to express the word

# Using Low Tech Visuals

Individuals can use the visual tools by:

- Pointing to pictures/words that are available to express the word

- Handing the visual to their communication partner

- Using eye gaze to look at the visual

# Choice Boards/Books

# Low Tech Visuals:Core Communication Boards/Book

A core vocabulary communication board or book is a communication system that is compromised of a combination of frequently occurring vocabulary words that occur in a wide variety of communication environments

# Low Tech Visuals:Core Communication Boards/Book

https://ttaconline.org/Online-Training/MLbTE3FyBnEj-DeYNo4LcaM9cSEAJzBl/Online-Training-a-few-good-words-using-core-vocabulary-to-support-nonverbal-students

# Low Tech Visuals: PODD Book

PODD = Pragmatic Organization Dynamic Display

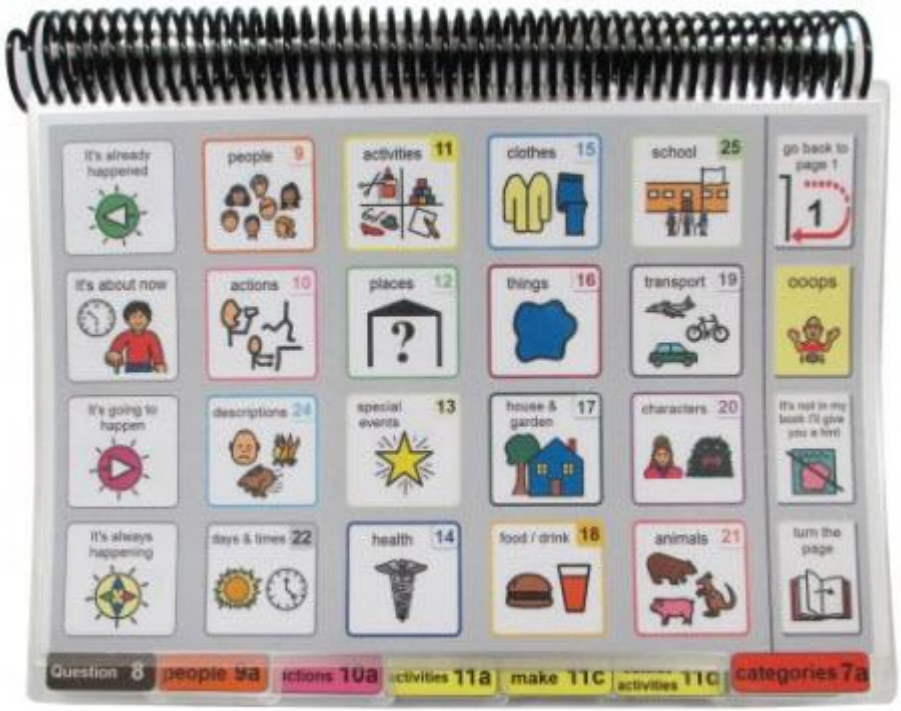
**PODD stands for:**

Pragmatic – realistic social language.

Organization – words and symbols arranged in a systematic way.

Dynamic Display – changing pages

# Low Tech Visuals: PODD Book



# High Tech

High Tech Visual use is typically done with a communication device that is either a dedicated communication device or an iPad with a communication app

# Free High Tech Communication Apps

## Go Talk Now Lite

https://www.attainmentcompany.com/gotalk-now-lite

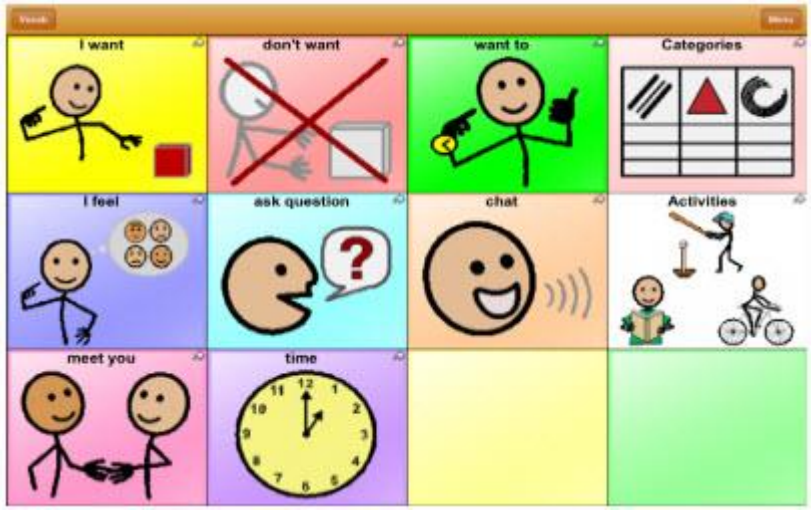
# Free High Tech Communication Apps

Verbally (Free Version)

http://verballyapp.com/

# Paid Communication Apps

## TouchChat HD AAC with Word Power

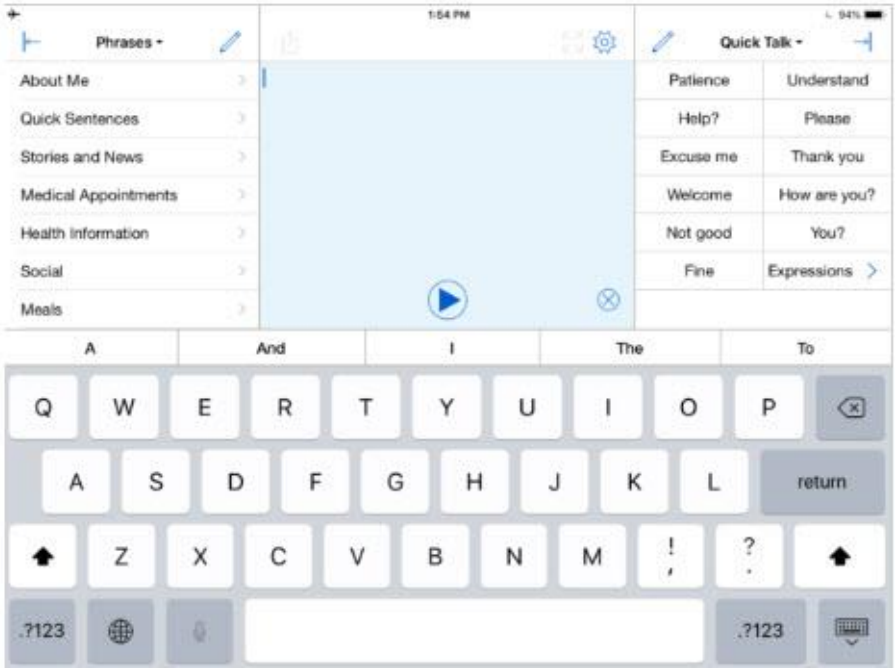



https://touchchatapp.com/apps/touchchat-hd-aac-with-wordpower

# Paid Communication Apps

## Proloquo2Go

## Proloquo4text



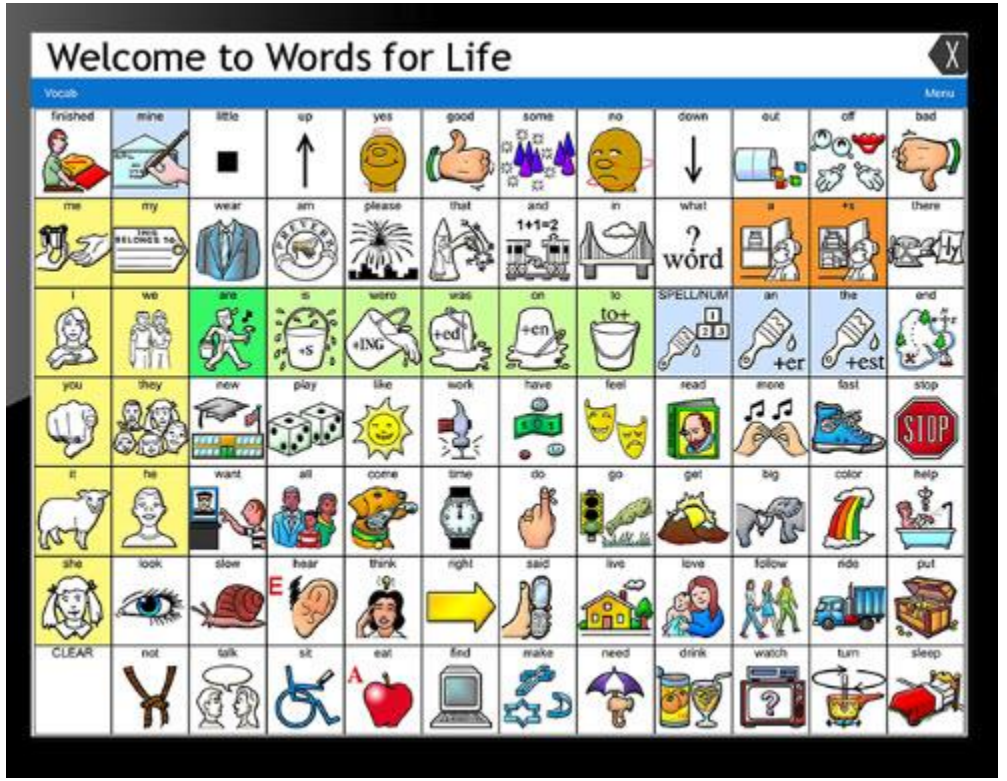



https://www.assistiveware.com/products/proloquo2go

# Paid Communication Apps

Lamp Words for Life

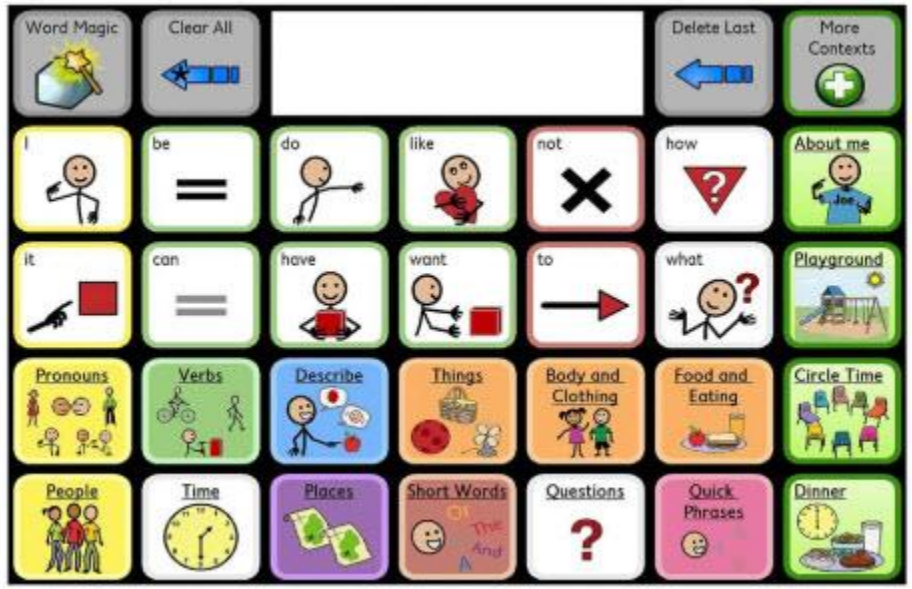
https://www.prentrom.com/prc_advantage/lamp-words-for-life-language-system



# Paid Communication Apps

Tobii SonoFlex

http://tobiisonoflex.com/



# Paid Communication Apps

Snap Core

https://www.mytobiidynavox.com/Store/SnapCoreFirst

# Recommended materials to start with

- White Boards and dry erase markers
- Small 3 ring notepads
- Sticky notes
- Magnets (esp. clip magnets)
- Clear photo frames with magnet strip on back
- 3 ring binder with pocket protectors
- Velcro (Always Velcro!!!!)
- Small photo book
- Fishing tackle box or craft box to store pictures
- Drawing and/or whiteboard apps on phones/tablets

# Symbol Set Subscription Options

Lesson Pix:

https://lessonpix.com/

- Over 40,000 Scalable Images
- Only $36.00/year

# Symbol Set Subscription Options

Symbolstix

https://www.n2y.com/symbolstix-prime/

- $99.00 a year
- 60,000 symbols
- Used on popular communication apps like Proloquo2go and TouchChat

# Symbol Set Subscription Options

Boardmaker Online

https://goboardmaker.com/pages/boardmaker-online-personal

- $99.00 a year
- 30,000 symbols
- Used on popular communication apps such as Snap Core and Communicator 5

# Free Symbol Sets/Visuals

Do2Learn

https://do2learn.com/

# Free Symbol Sets/Visuals

Speaking of Speech

https://www.speakingofspeech.com/material/view-materials

# Free Symbol Sets/Visuals

Free Printable Behavior Charts

https://www.freeprintablebehaviorcharts.com/

# Free Symbol Sets/Visuals

SetBC Visual Supports

https://w3.setbc.org/students/Pages/Student-Resources-Library.aspx

# Free Symbol Sets/Visuals

Autism Teaching Strategies

http://autismteachingstrategies.com/free-social-skills-downloads-2/

# Free Symbol Sets/Visuals

Teachers Pay Teachers

https://www.teacherspayteachers.com/

# Picking your symbol set

- Don’t spend too much time on this!
- Use what you can, when you can
- Symbol sets can be mixed and matched
- Try to be consistent with symbols but remember something is better than nothing

# Take Away Tips for Home Implementation

- Keep it simple: the simpler it is, the more likely you are to use it
- Something is better than nothing: don’t wait for perfection or until you are home to print something out
- Drawing stick figures and close approximations is OK
- Carry sticky note pad and a couple pens for quick draws
- Don’t overwhelm yourself: start with one thing, integrate it into your daily life for 2-4 weeks, then add another thing

# vis·u·als

/ˈviZH(ə)wəls/

*noun*

A simple, convenient alternative to repeating yourself all day.

@kwiens62

Consider making a viusal for anything that you
find yourself repeating throughout the day.
Also make a visual for any question that a student repeatedly ask you: "What's next?"
If students are asking you to repeat the same information all the time,
visuals can supply the information to them in a more permanenet manner.

*Visit northstarpaths.com for free posters about visuals and to follow our blog.*

# Visual Implementation is a journey, not a race

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# Thank You!

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