

SPECIAL EDUCATION & AGRICULTURE EDUCATION

Kelly Hunt



OVERVIEW OF TODAY'S WORKSHOP



- Overview of Special Education in the US
- Important Terms to Know
- Visual Learners and the Importance of Visual Aids in Special Education
- Modified Ag in the Classroom Curricula

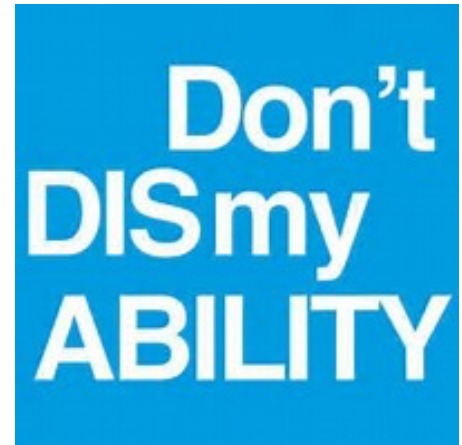
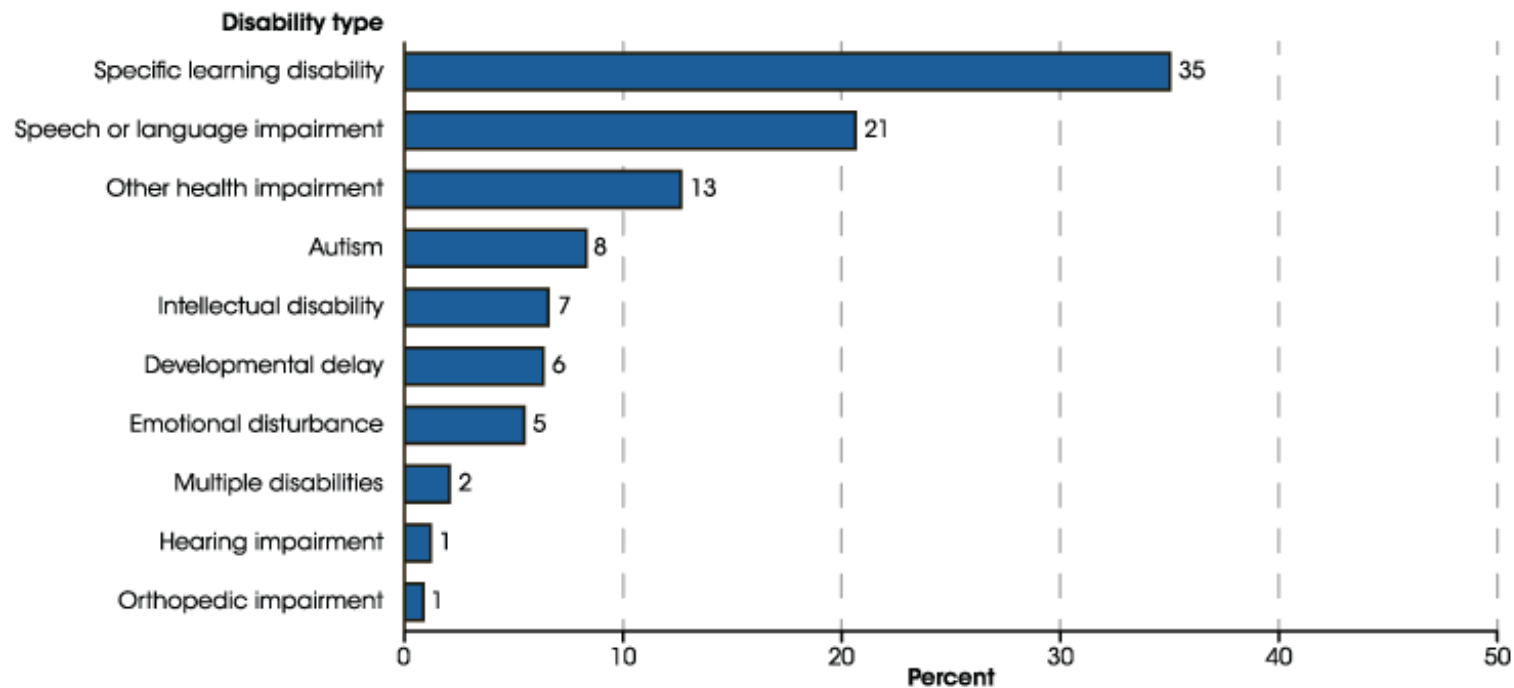
ASSESS OUR GROUP

- Who has worked in a classroom?
- Who has worked with Special Education students?
- Who is familiar with modifying/adapting material for Special Education students?



SPECIAL EDUCATION IN THE US

- 2, 029,368 served under IDEA (33.3%)
- 278, 094 served under Section 504 of the Rehabilitation Act of 1973



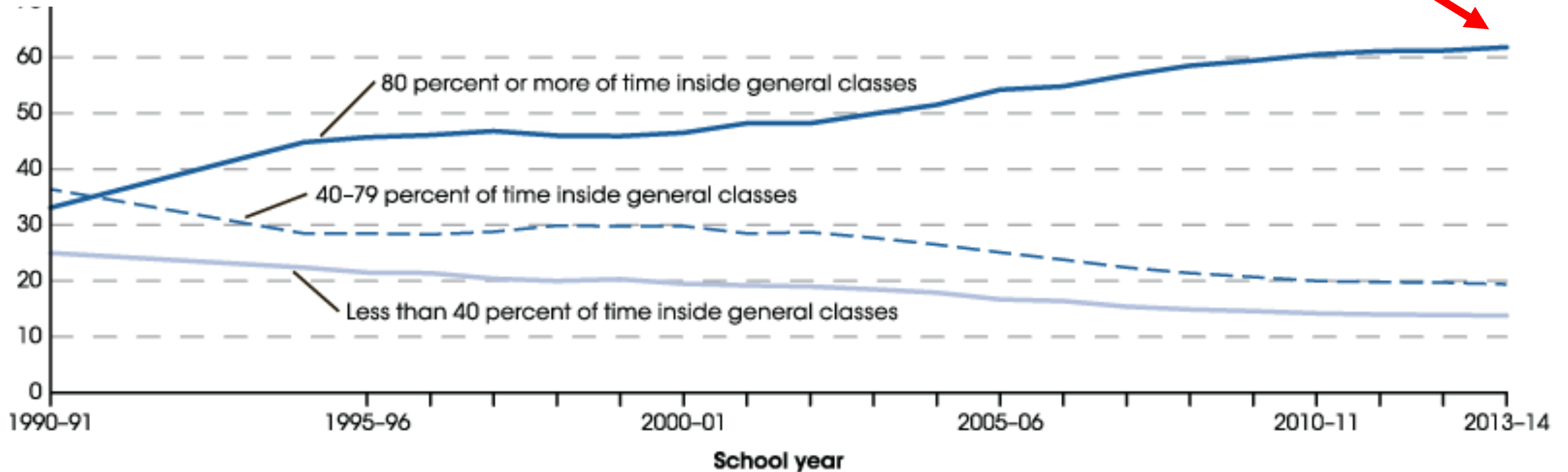
IDEA

- Individuals with Disabilities Education Act
- Signed into law by George H. W. Bush, 1990
- **2 Requirements:**
 - Student must have one or more of the 13 specific disabilities listed in IDEA
 - Disability must affect child's educational performance and/or the ability to learn and benefit from the curriculum.

- 6 main components:
 - Individualized Education Program (IEP)
 - Free and Appropriate Education (FAPE)
 - Least Restrictive Environment (LRE)
 - Appropriate Evaluation
 - Parent and Teacher Participation
 - Procedural Safeguards

IDEA (CONT'D)

At least 60% of students served in Special Education spend more than 80% of their day in the general education classroom!



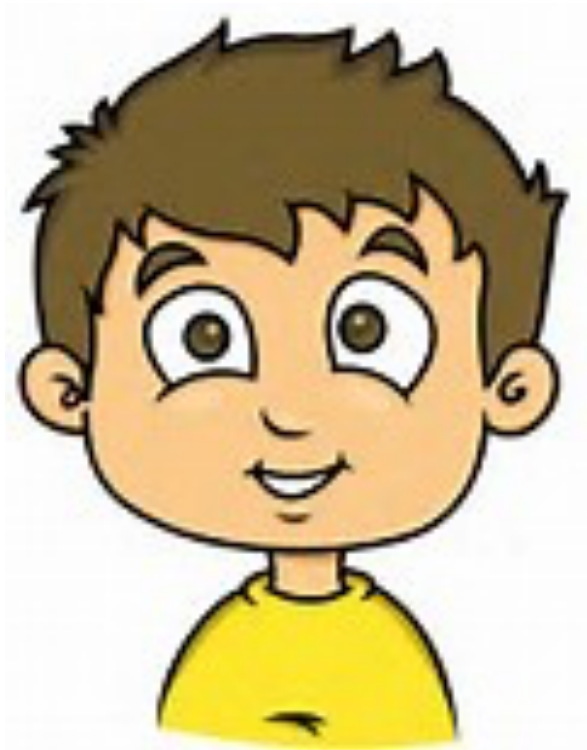
SECTION 504 OF THE REHABILITATION ACT

- Definition of “disability” is broader for 504 than for IDEA. If a child doesn’t qualify for an IEP, they may still be able to get a 504 Plan
- Mostly changes to the environment in the educational setting
- Federal Rights law to stop discrimination against those with disabilities
- **2 Requirements:**
 - A child must have a disability (any disability)
 - Disability must interfere with the child’s ability to learn in a general education classroom

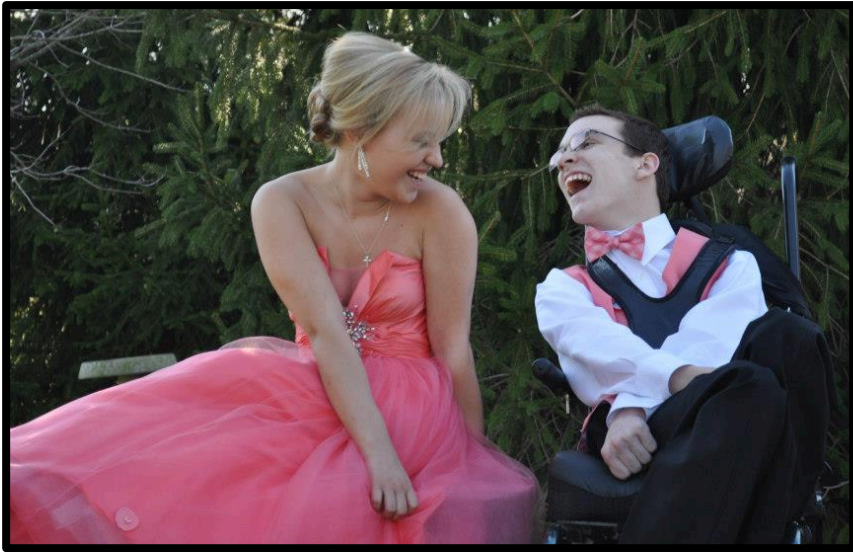


SETH W.

- We met in Fundamentals of Agriculture my freshman year of high school
- He was in the top 10% of his class in high school
- Took all honors classes
- Basketball manager for all 4 years in high school
- Received an Associates Degree of Communication at Volunteer State Community College
- Received the Vol State Patty T. Powell Award for showing respect and compassion for others
- Currently a full-time student at Lipscomb University pursuing Theology & Ministry
- Has maintained a 4.0 GPA at both VSCC & Lipscomb
- Has held leadership positions at all of his schools/universities in various clubs/activities



- ❖ Seth has Cerebral Palsy
- ❖ He is in ALL General Education classes
- ❖ He has an IEP for accommodations and a full-time 1:1 assistant





QUESTIONS ABOUT IDEA OR SECTION 504?

IMPORTANT TERMS

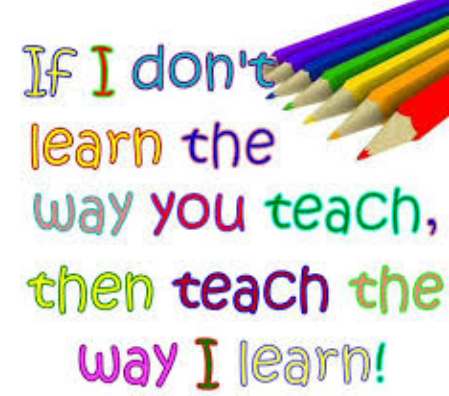
Accommodations

Modifications

Backward chaining

Task analysis

Generalization



ACCOMMODATIONS & MODIFICATIONS

- **Accommodation:** a change in the *mode* of presentation, expression, and assessment by a teacher for a student's benefit; students are held to the same standard as their typically developing peers
- **Modification:** a change in the *information* presented, expressed, and assessed by a teacher for a student's benefit; students can receive changes to the curriculum itself

Presentation – the method of delivery of information from student to teacher	Expression – procedure of student displaying their knowledge on a subject	Assessment - test/evaluation given to a student that teachers use for benchmarks
--	---	--



EXAMPLES OF ACCOMMODATIONS

Presentation	Expression	Assessment
<ul style="list-style-type: none">• Have a sign-language interpreter• Provide additional summaries• Give pre-made notes, outlines, or graphic organizers with main ideas	<ul style="list-style-type: none">• Allow a student to make a video, give a presentation, or draw an illustration rather than writing a paper• Permit students to use alternative expectations for rate, timing, and range of motor actions• Provide options besides answering/reading aloud	<ul style="list-style-type: none">• Provide extra time, rest breaks, or an alternate testing environment• Alternate means of testing: oral testing, directions and problems read to student, etc.• Preview test procedure prior to test• Choice of test formatting



EXAMPLES OF MODIFICATIONS

Presentation	Expression	Assessment
<ul style="list-style-type: none">● Simplified material or a shallower description of information (often used in science courses)● Fewer chapters, vocabulary words or topics required to be learned	<ul style="list-style-type: none">● Outlining instead of fully writing an essay● Reducing assignments to only the simpler problems● Giving additional hints/cues to correct responses● Require less master of the same concept	<ul style="list-style-type: none">● Changes in the grading scale/rubric● Reducing complexity or number of questions in a problem set● Alternative assessment*



QUESTIONS ABOUT ACCOMMODATIONS AND MODIFICATIONS?

TASK ANALYSIS

- Task analysis is the process of taking a large goal and breaking into smaller, more manageable goals.

BACKWARD CHAINING

This teaches the child the steps from the last to the first

1. The child is taught the last step until they can complete it independently
2. When the last step is mastered, the teacher assists until the child is able to perform the step until the last one
3. The child completes more and more ending steps independently until he masters all the steps and can successfully complete the task

TASK ANALYSIS EXAMPLE

Handwashing –

1. Pull hot water knob to on.
2. Pull on cold water knob to on.
3. Put left hand under water.
4. Put right hand under water.
5. Put left hand under soap dispenser.
6. Put right hand on soap dispenser.
7. Push soap dispenser with right hand 2 times.
8. Put right hand on top of left hand and rub back and forth 5 times.
9. Rub right hand on top of left hand 5 times.
10. Rub left hand on top of right hand 5 times.
11. Put right and left hands under water.
12. Rub together 5 times under the water.
13. Turn hot water off with left hand.
14. Turn cold water off with right hand.
15. Put left hand on paper towel.
16. Put right hand on paper towel.
17. Pull down paper towel with both hands.
18. Tear off paper towel.
19. Bring hands together with towel in middle.
20. Rub 5 times.
21. Put paper towel in trash.



BACKWARD CHAINING

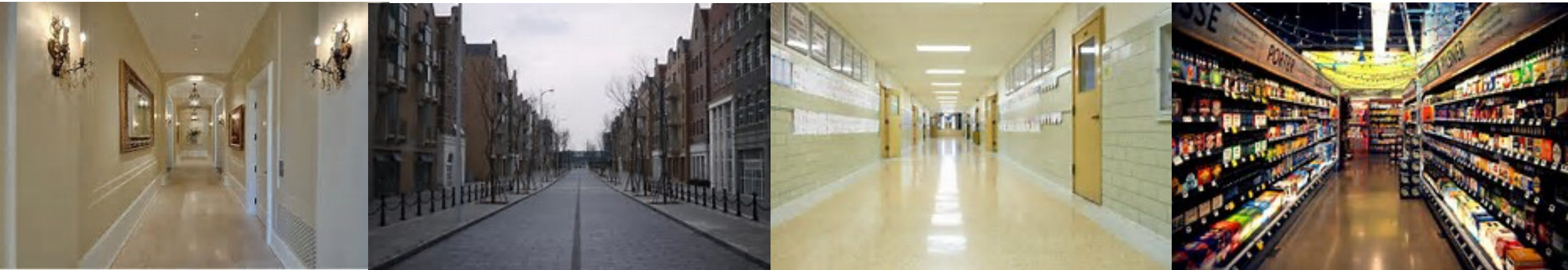
Handwashing –

1. Pull hot water knob to on.
2. Pull on cold water knob to on.
3. Put left hand under water.
4. Put right hand under water.
5. Put left hand under soap dispenser.
6. Put right hand on soap dispenser.
7. Push soap dispenser with right hand 2 times.
8. Put right hand on top of left hand and rub back and forth 5 times.
9. Rub right hand on top of left hand 5 times.
10. Rub left hand on top of right hand 5 times.
11. Put right and left hands under water
12. Rub together 5 times under the water.
13. Turn hot water off with left hand.
14. Turn cold water off with right hand.
15. Put left hand on paper towel.
16. Put right hand on paper towel.
17. Pull down paper towel with both hands.
18. Tear off paper towel.
19. Bring hands together with towel in middle.
20. Rub 5 times.
- 21.



GENERALIZATION

- A skill is not mastered in isolation. Skills are only truly mastered when students can perform the skills in their classroom settings, in their school settings and in their community.
- “**Generalization** is the ability to complete a task, perform an activity, or display a behavior across settings, with different people, and at different times” (The May Institute)





**QUESTIONS ABOUT TASK ANALYSIS, BACKWARD
CHAINING, AND GENERALIZATION?**

VISUAL LEARNERS

- 65% of the world's population are visual learners
- Visual learners use images, pictures, and colors to organize and learn new information
- Common Characteristics of visual learners
 - Dreams in color
 - Likes/ understands charts
 - Is good at spelling but forgets names
 - Must think before understanding lecture



LEARNING SUGGESTIONS FOR VISUAL LEARNERS

- Draw a map/outline of events/processes
- Diagram sentences
- Use highlighters, circle words, underline (color coding)
- Show problem solving
- Make memorization fun
- Use whiteboards
- Teach with patterns

University of Alabama at Birmingham,
Education.com, Colorado State University

OU	OU
Bought	Bought
Brought	Brought
Sought	Sought
Thought	Thought
Fought	Fought

Which one of these charts would better teach the -ou- sound?

SPECIFIC DISABILITIES THAT BENEFIT FROM VISUAL AIDS

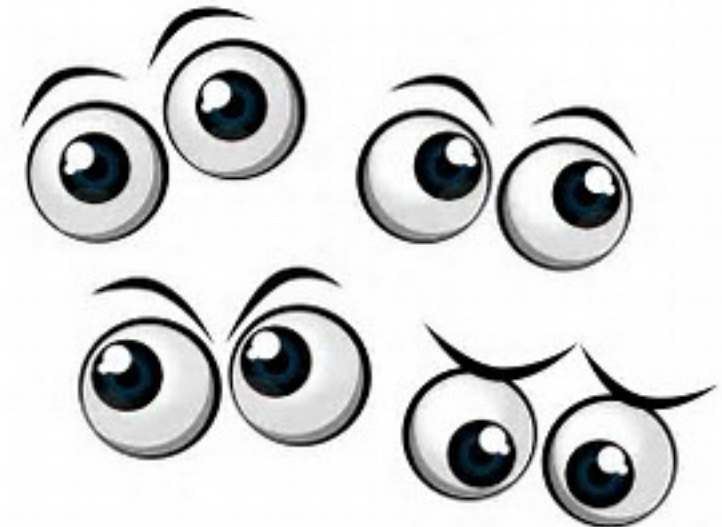
- Autism Spectrum Disorder (ASD)
- Specific Learning Disability (SLD or LD)
- Intellectual Disability/Delay (ID)
- Emotional and Behavioral Disturbance (EBD)
- Speech and Language Impairment (SLI)
- All students!



These 5 disabilities make up nearly 76% of the students served in US Special Education!

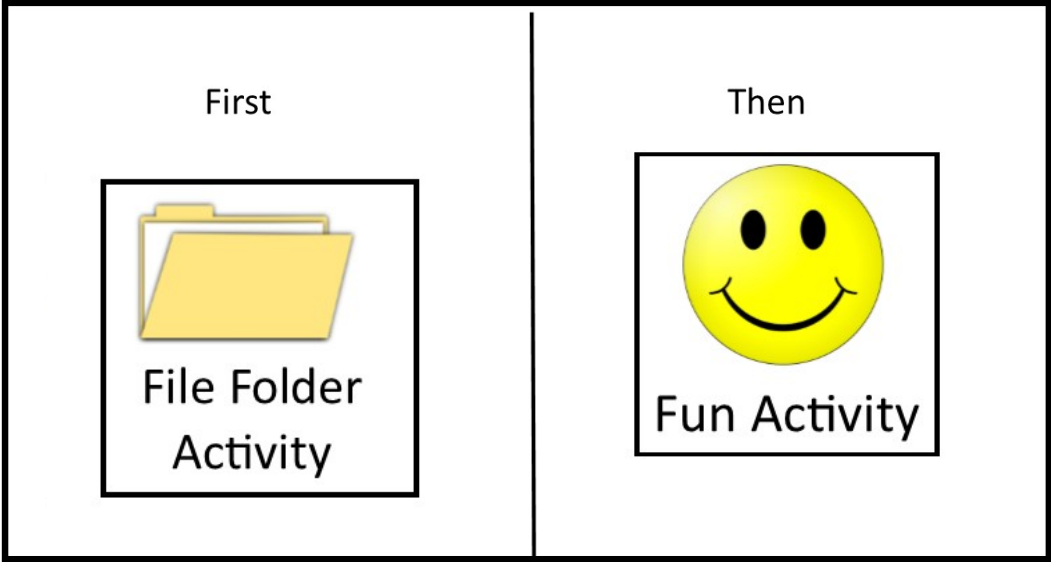
VISUAL LEARNERS IN SPECIAL EDUCATION

- All typical aids for a visual learner will benefit a student in Special Education, but Special Education adds more to it!
- Many students in Special Education cannot read, so they rely on visual pictures
- **Examples of visuals that are often present in Special Education/Inclusive Classrooms:**
 - Picture Exchange Communication System (PECS)
 - Visual schedules
 - Checklists
 - iPad

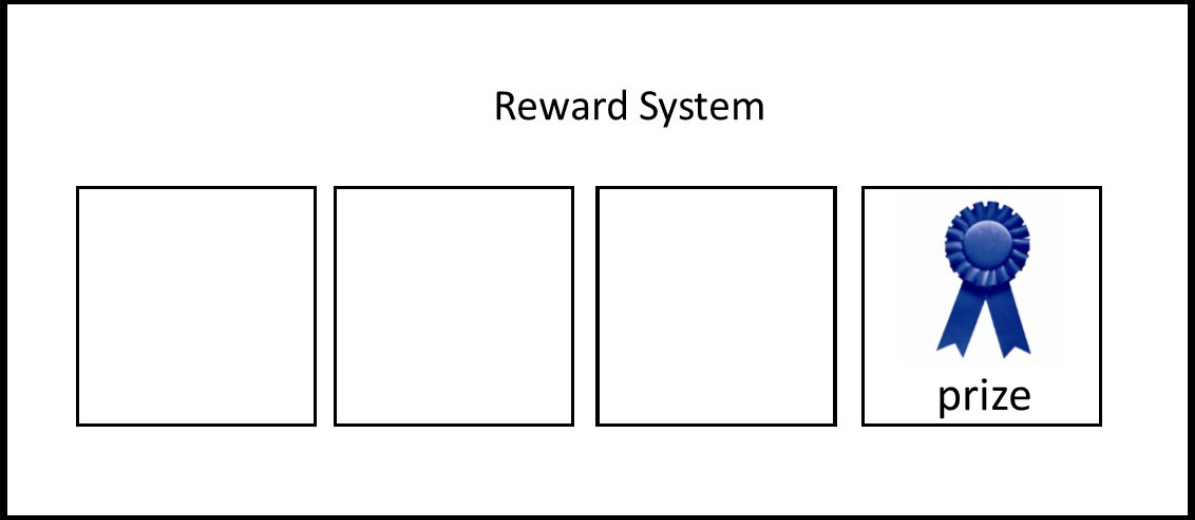


EXAMPLES OF VISUAL AIDS

First, Then Chart

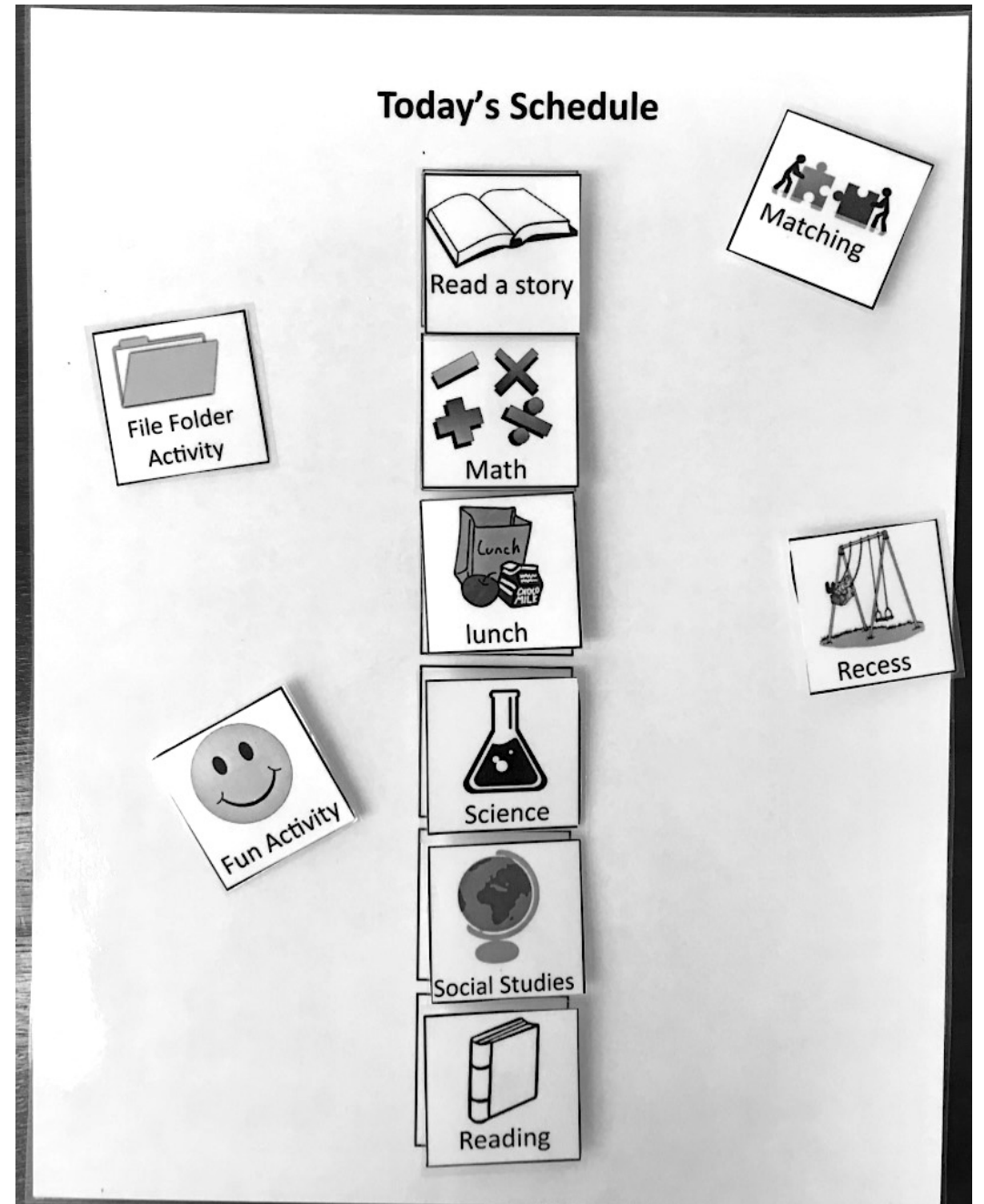
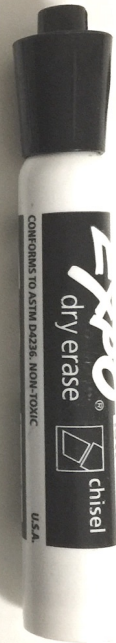
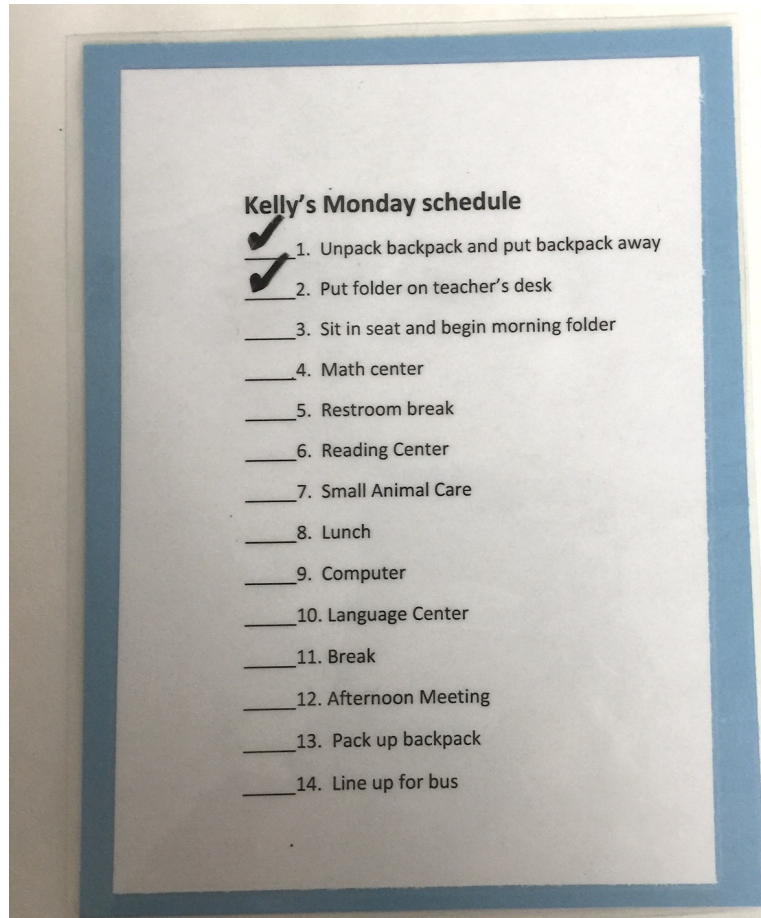


Reward System Chart



VISUAL SCHEDULE

- Helps student know daily plan
- Aids student in what comes next
- Reduces anxiety
- Shows an “end in sight”



HOW VISUAL AIDS HELP THE STUDENT IN SPECIAL EDUCATION

- Provide **clear** and **outlined** expectations, rules, and guidelines for behavior/academic work
- Bring routine, structure, and sequence
- Make abstract concepts visually concrete
- Reduce anxiety
- Help all students (with and without disabilities)
- Allow student to work towards a goal
- Permit students to express their thoughts
- Allow student to communicate with *anyone* because they are part of everyone's communication system
- Assist with transitions
- Address difficulty with sequential memory and organization of time

GOOD PRACTICES FOR USING VISUAL AIDS

- Work folders/boxes
- Laminate (reuse activities)
- Use task analysis
- Use explicit, individual, systematic instruction
- Scaffolding as needed
- Use reinforcers that the *child* wants
- Assess student continually to monitor progress
- Individualize!!



HOW AGRICULTURE EDUCATION AND SPECIAL EDUCATION INTERSECT

- Hands-on activities
- Applicable to daily life as soon as the student leaves the classroom
- Diverse topics that can build from Kindergarten to 12th grade
- Varying range of difficulty within each topic
- Knowledge to be used through all years of life (AKA “life skills”)
- Visuals, charts, and diagrams are easily integrated
- Age-appropriate material than can be manipulated to ability-level



MODIFIED AG IN THE CLASSROOM CURRICULA

Instructions for teachers on how to use the materials

Many of the activities have answers listed on the first page

Bottom left corner has a label with the book of origin, original activity name, and page

Alphabet Soup Book—G—File Folder Activity 1 —Pg 1

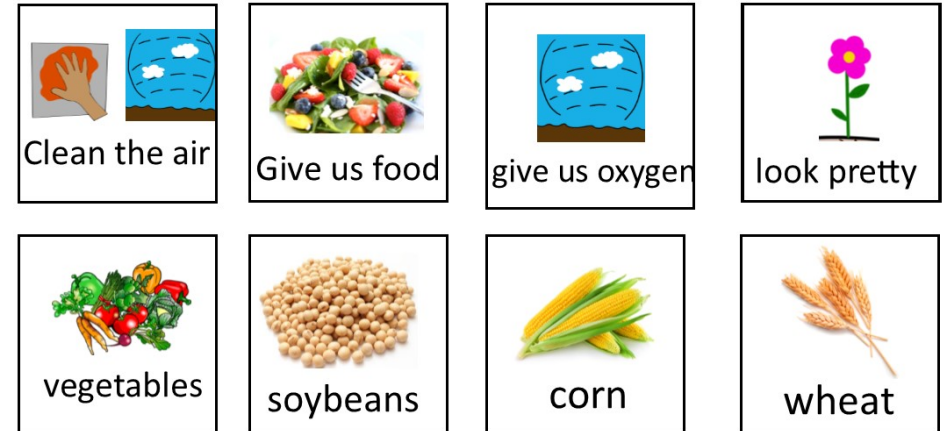
File folder Activity1

Teacher Instructions:

Cut out these squares and laminate. These will be the answers for the File Folder Activity Pages 2 & 3..

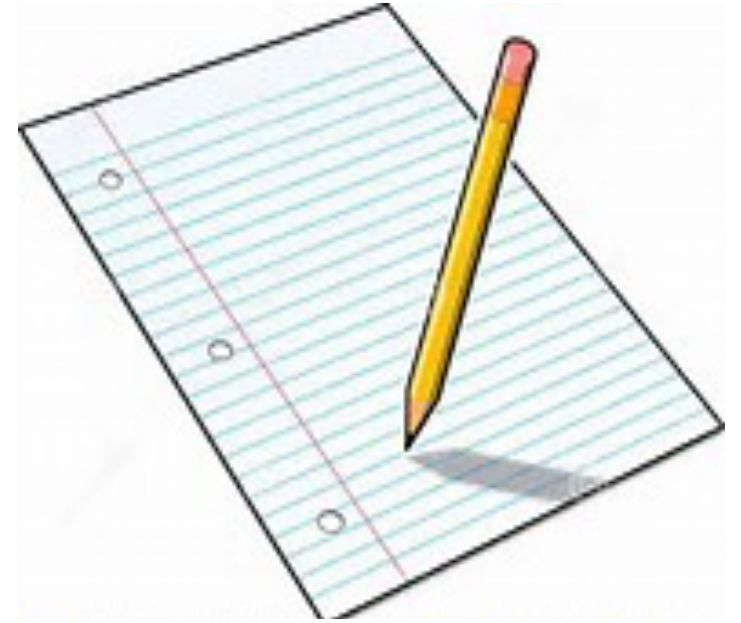
Put a strip of velcro where labeled on the activity pages (this is where you will velcro all the answer choices for the student to pick from).

Laminate the second and third page, and put the opposite velcro in each answer box. Students will use the cut-out squares to answer the questions.



MAIN MODIFICATIONS

- Adding Visual Images where possible
 - Procedures
 - Lists
 - Notes
 - Hands-on Activities
- Manipulating worksheet/project into different type of activity
 - Sequencing activity
 - File folder activity



ADDING VISUAL PICTURES



- Especially helpful when doing **procedures** or **lists**
- Extremely beneficial for students who are unable to read but can identify pictures
- Action **verbs** and **nouns**!

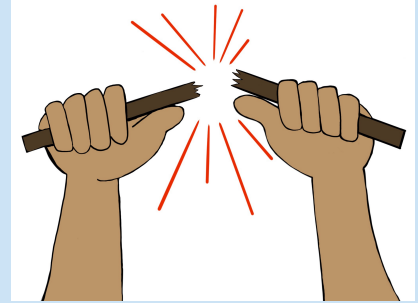


EXAMPLES OF VISUAL PICTURES

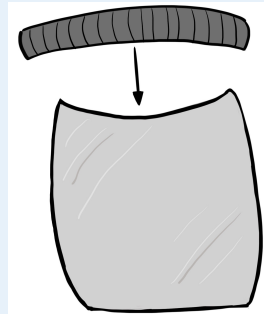
Eat



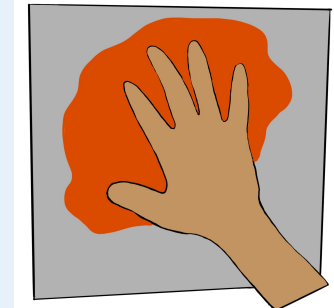
Break



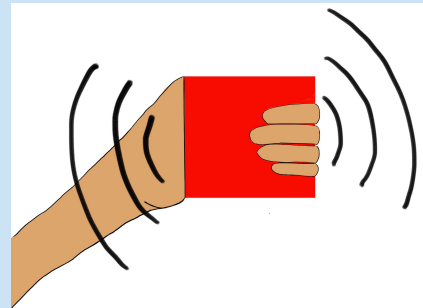
Put lid on a jar



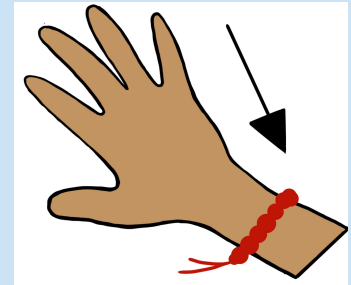
Clean (noun or verb)



Shake



Bracelet

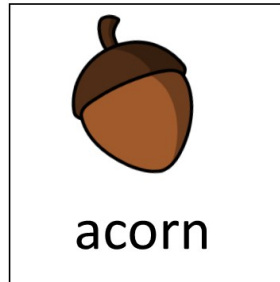
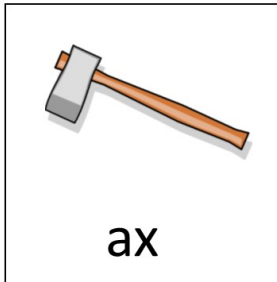
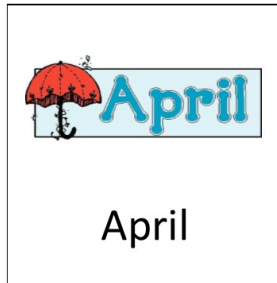
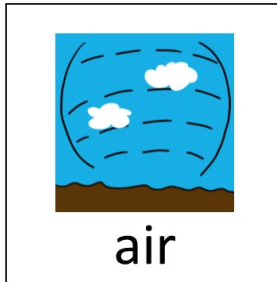
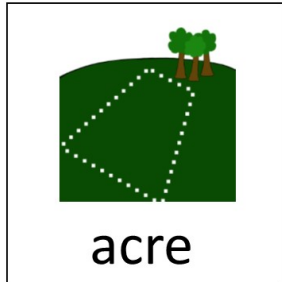


EXAMPLE: "APPLE BINGO"

Apple Alphabet BINGO		
Almonds	Aquaculture	August
Apricots	Autumn	Aid
Animals	Add	Alphabet

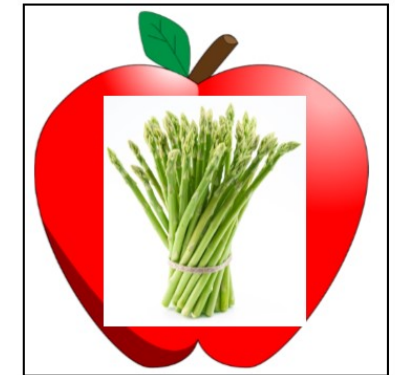
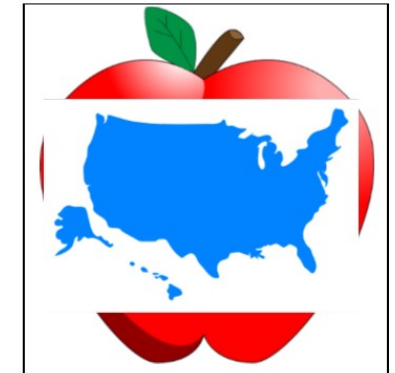
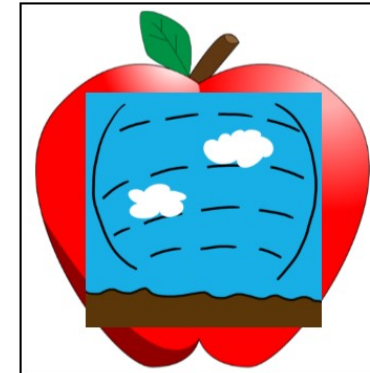
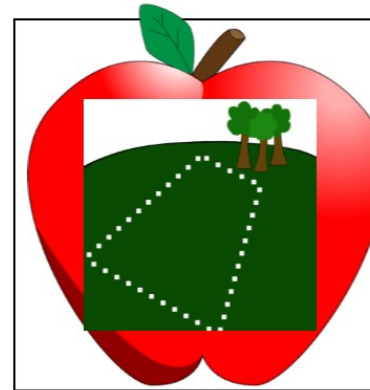


Apple Alphabet Bingo Card



Version 1

I've included a few different versions
of the Apple Bingo cards



EXAMPLE: “YELLOW YOGURT YUMMIES PROCEDURE”

Yellow Yogurt Yummies



___ 1. pour milk into jar



___ 2. Pour instant pudding into jar



___ 3. Pour yogurt into jar



___ 4. Put the lid on the jar

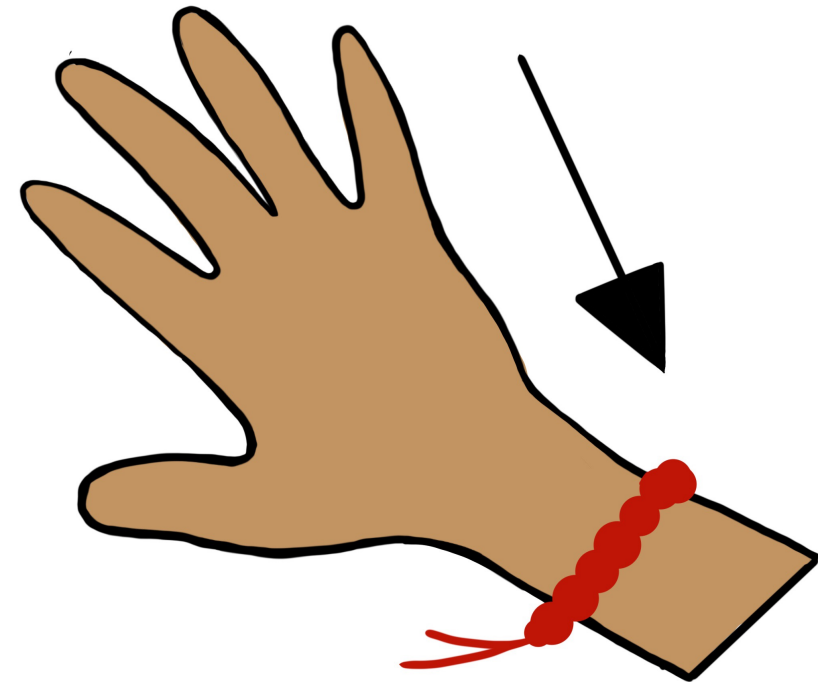
Directions:

- Give each child a jar with a lid.
- Children measure and put into their jars:
 - 2 tablespoons lowfat milk
 - 1 tablespoon instant pudding
 - 4 tablespoons yogurt
- Put the lid on the jar. Shake.
- Add 2 drops yellow food coloring. Shake again.
- Pour into 3-ounce cup.
- Put in freezer.
- When partially frozen, insert the popsicle stick.
- When completely frozen, carefully remove the paper cup.

NOW YOU TRY: “LET’S MAKE A BRACELET”

Use your handout titled “Let’s make a bracelet” and decide what visuals you would put and where.

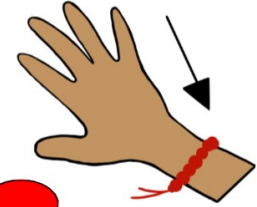
Assume you had any visual you need.



“LET’S MAKE A BRACELET”

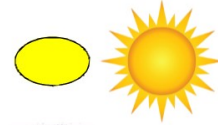
Let’s make a bracelet

1. Get a pipe cleaner



2. Get 6 beads

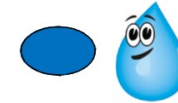
3. Put on a yellow bead for sunshine



4. Put on a brown bead for soil



5. Put on a blue bead for water



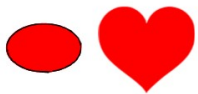
6. Put on a clear bead for air



7. Put on a green bead for plant



8. Put on a red bead for love and care of plant



9. Twist ends of pipe cleaner to make bracelet



FILE FOLDER ACTIVITIES

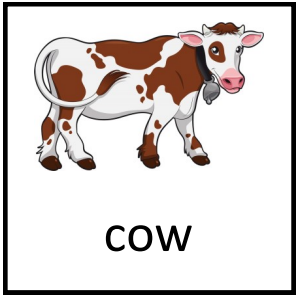
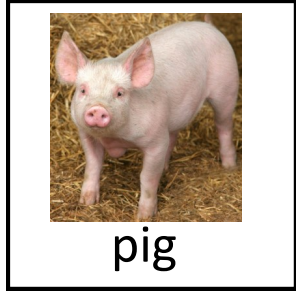
- Great to laminate & reuse
- Easy to use and check for correct/incorrect answers



MODIFIED FILE FOLDERS — INSTRUCTION PAGES

Potential and correct answers listed for each file folder activity

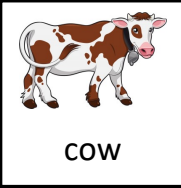
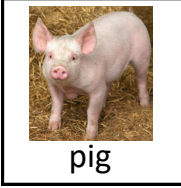
Potential Answers for 1 (Correct Answer: cow)

 COW	 pig
---	---



File Folder Activity for "B"

Teacher Instructions:
Print and laminate file folder activity pages (pages 2 & 3) and glue to the file folder.
Add a strip of Velcro for all potential answers where labeled.
Cut out the following, laminate, and velcro. These are the answers to folder questions:



Potential Answers for 1 (Correct Answer: cow)

 COW	 pig
--	--

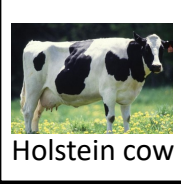
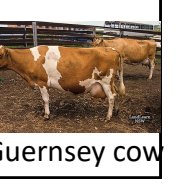
Potential Answers for 2 (Correct Answer: leather, milk)

 Leather	 milk
--	---


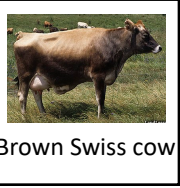
Potential Answers for 3 (Correct Answer: 2)

 2 servings	 3 servings
--	--


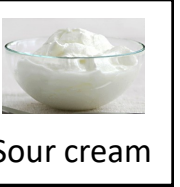

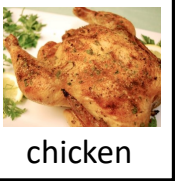
Potential Answers for 4: (Correct Answer: Holstein)

 Holstein cow	 Guernsey cow
---	---

Potential Answers for 5 (Correct Answer: Jersey, Brown Swiss)

 Jersey cow	 Brown Swiss cow
---	--

Potential Answers for 6 (Correct Answer: Ice cream, yogurt, sour cream)

 ice cream	 Sour cream
 yogurt	 chicken

Alphabet Soup Book—B—File Folder Activity—pg 1

MODIFIED FILE FOLDERS — ACTIVITY PAGES

Place the correct answer in the box

?



1. What animal does butter come from?

Put strip of Velcro here

?



2. What are other products that come from cows?

Put strip of Velcro here

?



3. How many servings of dairy do we need per day?

Put strip of Velcro here

EXAMPLES: FILE FOLDER ACTIVITY B

File folder "B"






Place the correct answer in the box

1. What animal does butter come from?




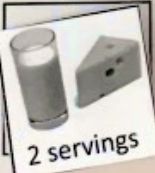
pig cow

2. What are other products that come from cows?




milk Leather

3. How many servings of dairy do we need per day?






3 servings 2 servings

4. What kind of cow do we have the most of in Tennessee?



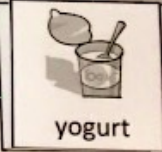

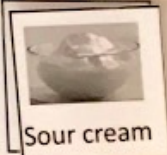
Guernsey cow Holstein cow

5. Other kinds of dairy cows

Duroc pig Brown Swiss cow Jersey cow

6. What are some other dairy products?

chicken yogurt ice cream Sour cream

FILE FOLDER ACTIVITY: WHICH FOOD GROUP?

Which Food Group?- File Folder Activity 2 Page

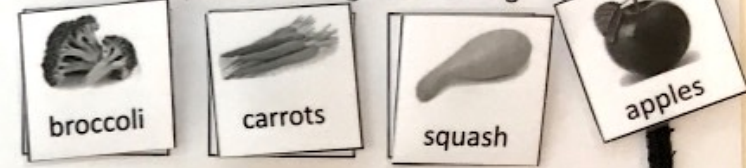
?
Which of these are part of the **dairy** food group?



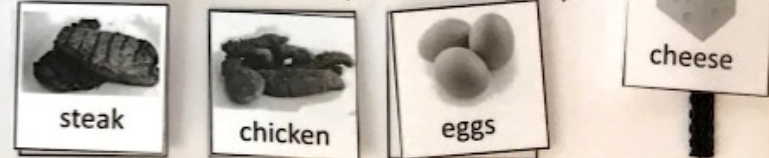
?
Which of these are part of the **fruit** food group?



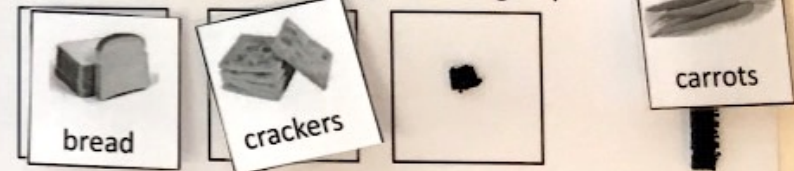
?
Which of these are part of the **vegetable** food group?



?
Which of these are part of the **protein** food group?



?
Which of these are part of the **grain** food group?



Which Food Group?

NOW YOU TRY: FILE FOLDER G

Use your handout labeled “Plants are used to...” and decide how you would make a file folder activity.



FILE FOLDER G

File Folder "G"

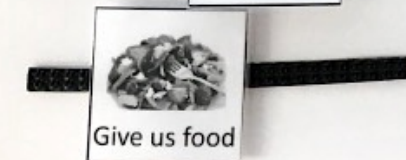
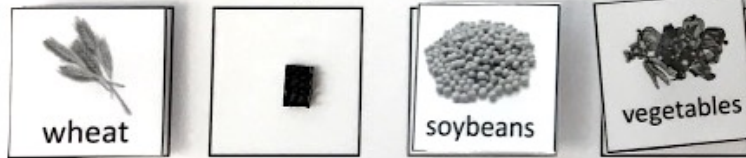
Plants—File Folder Activity Page 1



Plants are used to:



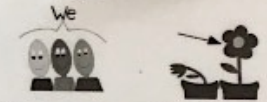
Plants grown in Tennessee



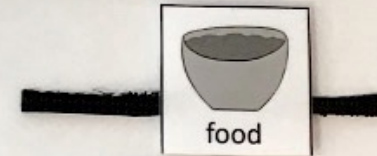
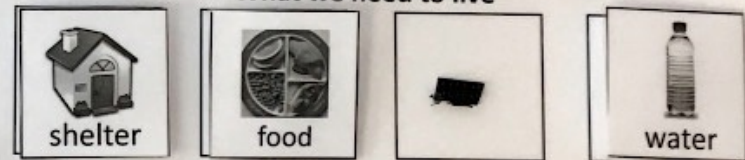
Plants—File Folder Activity Page 2



What plants need to live:



What we need to live



SEQUENCING

1. Print two copies of the activity. Cut up one copy into strips and have students lay one strip on top of the other. (match strip to strip)
2. Take away the excess copy of the activity. Have student sequence strips.
3. Have students sequence the strips without the numbers.
4. Have student sequence strips without the pictures.



SEQUENCING (CONT'D)

If applicable:

5. Remove key words from each step and have students fill in key words. (Provide a word bank)
6. Do the activity above without a word bank.

Alternative using Backward Chaining:

1. Explain each step to student.
2. Have student master step 5
3. Go through each step again but let student explain /do step 5 on their own.
4. Repeat Steps 2 & 3 with each step going backwards until the student can do all the steps on their own.



SEQUENCING EXAMPLES: PUMPKIN LIFE CYCLE

1. Seed



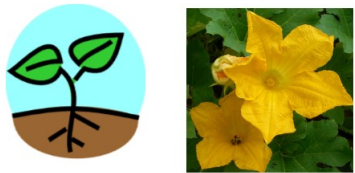
The Pumpkin seed is planted in the soil

2. Plant



The seed grows into a plant

3. Blossom



The plant grows a blossom

1. Numbers & Pictures

4. Green Pumpkin



The blossom turns into a small green pumpkin

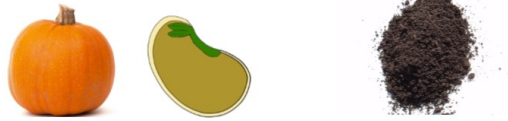
5. Big Pumpkin



The green pumpkin grows into a big orange pumpkin

Without Numbers

Seed



The Pumpkin seed is planted in the soil

Plant



The seed grows into a plant

Blossom



The plant grows a blossom

2. Pictures without numbers

Green Pumpkin



The blossom turns into a small green pumpkin

Big Pumpkin



The green pumpkin grows into a big orange pumpkin



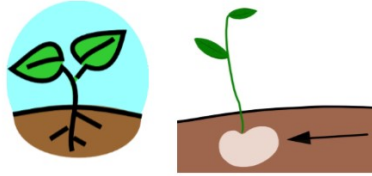
NOW YOU TRY: LITTLE RED HEN



Plant the seeds.
Cut the Wheat
Walk to the Mill
Grind the Wheat into Flour
Bake the Bread



Little Red Hen Sequencing Activity



1. Plant the seeds



2. Cut the Wheat



3. Go to the mill

LITTLE RED HEN



4. Grind the wheat into flour

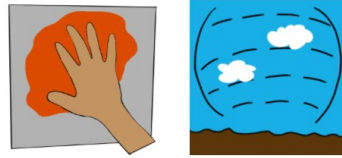


5. Bake the bread

MATCHING

Examples: Alphabet Soup Book "G" – Plant Notes/Activity

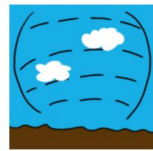
Uses for plants



Clean the air



Give us food



Give us oxygen



Look pretty

Plants grown in Tennessee



soybeans



corn



vegetables



wheat

Plants grown in Tennessee



soybeans



corn



vegetables



wheat

Plants grown in Tennessee

Uses for plants



Clean the air



Give us food



Give us oxygen



Look pretty

Uses for plants



IN CONCLUSION...

Special education is a very diverse field that could benefit **greatly** from Ag Ed.

Ag Ed is hands-on, instantly applicable, and possesses many necessary components of Special Education.

Ag teachers will have Special Education students because of the push for more and more inclusion of our special needs population. You may not have special needs students right now but you will in the near future.

Special Education can teach “life skills” that coincide with Ag.





QUESTIONS??

WORKS CITED

Carinci, Jennifer. "Visual Supports for Students with Autism." *Johns Hopkins School of Education*. N.p., n.d. Web.

"Chaining." (n.d.): n. pag. Grand Valley State University - Texas Guide for Effective Teaching. Web.

"Children and Youth with Disabilities." *The Condition of Education*. National Center for Education Statistics, May 2016. Web.

Cleaver, Samantha. "12 Ways to Teach Your Visual Learner." *Education.com*. N.p., 23 Sept. 2011. Web.

"Examples of Accommodations & Modifications." Smart Kids with Learning Disabilities, n.d. Web.

"5 Visual Support Tools for the Special Education Classroom - Friendship Circle - Special Needs Blog." Friendship Circle of Michigan, n.d. Web.

Strom, Erich. "The Difference Between Accommodations and Modifications." *Understood.org*. N.p., n.d. Web.

"Visual Aids." University of Alabama at Birmingham - Faculty Development, n.d. Web.

"Visual Learning Style." *Colorado State University*. Center for Advising and Student Achievement, n.d. Web.

"Visual Schedules." *Autism Papers--Structured Teaching:Strategies for Supporting Students with Autism Pg 2*. Cooperative Educational Service Agency, n.d. Web.

Wrightslaw.com. N.p., n.d. Web.

SOURCE — DIRECT WEBSITE

1. <https://www.understood.org/en/learning-attention-issues/treatments-approaches/educational-strategies/the-difference-between-accommodations-and-modifications>
2. <http://www.smartkidswithld.org/getting-help/the-abcs-of-ieps/examples-of-accommodations-modifications/>
3. <http://www.wrightslaw.com/info/fape.accoms.mods.pdf>
4. <https://www.gvsu.edu/cms4/asset/64CB422A-ED08-43F0-F795CA9DE364B6BE/chaining.pdf>
5. <http://www.uab.edu/uasomume/fd2/visuals/page1.htm>
6. <https://www.education.com/magazine/article/12-ways-teach-visual-learner/>
7. <https://secure.casa.colostate.edu/applications/learningstyles/visual.aspx>
8. https://nces.ed.gov/programs/coe/indicator_cgg.asp
9. <http://www.cesa7.org/sped/autism/structure/str11.htm>
10. <http://www.friendshipcircle.org/blog/2012/01/12/5-visual-support-tools-for-the-special-education-classroom/>
11. <http://education.jhu.edu/PD/newhorizons/Journals/specialedjournal/Harris>
12. https://www.mayinstitute.org/news/topic_center.html?id=400