

Executive Function and Early Childhood



Objectives

- Gain knowledge of executive function areas and manifestation of challenges
- Understand the impact of executive dysfunction on child/student behavior, performance and achievement
- Understand the connection between play and the building of executive function skills
- Gain knowledge of strategies and tools that support learning executive functions

Activity: Planning a Trip

- You get an email inviting you to attend your family reunion that is happening in 6 months at an out of state location. You, your partner, and 3 children decide to attend. You have a dog and 3 cats.
- Working with 2-3 people, make a list of all the things you need to do to plan and take the family reunion trip.



IN THE WORLD BEYOND SCHOOL...

At work?

In the community?

What are the characteristics of a successful independent learner and productive citizen?

At home?

In relationships?

Success in School

Top 10 Skills as identified by a survey of 8,000 teachers


- Listen to others
- Follow the steps
- Follow the rules
- Ignore distractions
- Take turns when you talk
- Ask for help
- Get along with others
- Stay calm with others
- Be responsible for your behavior
- Do nice things for others

(Elliot & Grisham, 2006)

Prepares Young People for Success in Adulthood

Common list of soft skills employers want:

- Social skills/interests/involvement
- Communication skills
- Interpersonal abilities
- Problem solving
- Teamwork
- Adaptability/flexibility




Executive Function Defined


- **Cognitive processes** that enable individuals to engage in **goal-directed or problem-solving** behavior (Council for Exceptional Children, 2011)
- Allow us to **organize our behavior** over time and **override immediate demands** in favor of longer-term goals (Dawson & Guare, 2010)
- Who can have challenges with executive function?
Anyone!

AKA


CEO and Management Structure of the Brain




Conductor and Section Leaders of the Brain



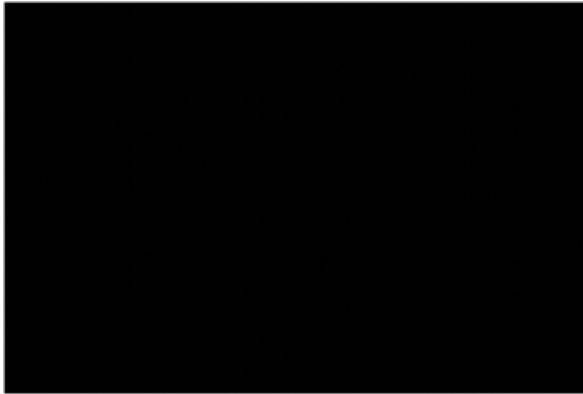
GPS of the Brain



Administrative Assistant Team of the Brain



In Brief: Executive Function



https://www.youtube.com/watch?v=efCq_vHUMqs

Specific Executive Functions

| Executive Function | Definition | Signs of Difficulty |
|------------------------------|--|--|
| **Emotional Control | Regulates emotion to be appropriate to situation | Easily upset or excited, overreacts, frequent mood changes |
| **Inhibitory Control | Delays certain activities or response for sake of others | Distractible or impulsive, cannot delay gratification |
| Goal Setting/Planning | Setting goals and identifying steps to take | Sets unrealistic goals, starts work at last minute, fails to anticipate consequences |
| Organize | Establishing order in a place or activity | Scattered, disorganized approach to solving problems, materials |
| **Initiate | Begin a task or activity | Trouble getting started, may appear defiant |

**Preschool Focus EFs

Specific Executive Functions (cont'd)

| Executive Function | Definition | Signs of Difficulty |
|-----------------------------------|--|---|
| **Working Memory | Holding information in mind while performing other tasks | Forgets assignments, materials, classroom procedures, remembers only part of directions |
| **Shift/Mental Flexibility | Smoothly transitioning from one task to another | Difficulty coping with changes in routine, thinking "outside of the box" |
| Self-Monitor | Assessing progress toward goal or effect on others | Doesn't notice how others react to behavior, asks for help rather than trying first, avoids problem-solving games |

**Preschool Focus EFs

Born with EF Skills? Nope!!

- Born with the **potential to develop** EF skills
- **EF can be trained**, with corresponding changes to brain structure and function (Carlson, et al, 2013)
- Influenced by:
 - relationships with adults
 - conditions in their environments

Providing the support that children need to build these skills at home, in early care and education programs, and in other settings they experience regularly is one of society's most important responsibilities.

<https://developingchild.harvard.edu/science/key-concepts/executive-function/>

Home Tie-In: Ideas & Resources

- Strategies for Home <https://www.understood.org/en/learning-attention-issues/child-learning-disabilities/executive-functioning-issues/executive-functioning-issues-strategies-you-can-try-at-home>
- Activities Guide: Enhancing and Practicing EF with Children from Infancy to Adolescence <https://developingchild.harvard.edu/resources/activities-guide-enhancing-and-practicing-executive-function-skills-with-children-from-infancy-to-adolescence/>
- EF Fact Sheet <http://www.ldonline.org/article/24880/>
- Executive Functioning Issues: What You're Seeing in Your Preschooler <https://www.understood.org/en/learning-attention-issues/child-learning-disabilities/executive-functioning-issues/executive-functioning-issues-what-youre-seeing-in-your-preschooler>

What is the Research Telling Us?

- In one recent national survey, 46 percent of kindergarten teachers said that at least half the kids in their classes had **problems following directions**.
- In another study, Head Start teachers reported that more than a quarter of their students **exhibited serious self-control-related negative behaviors**, like kicking or threatening other students, at least once a week.



What is the Research Telling Us?

- Walter Gilliam, a professor at Yale's child-study center, estimates that each year, across the country, **more than 5,000 children are expelled from pre-K programs because teachers feel unable to control them**.
- Recent study of children 4-7 years old the **emergence of symbolic play is related to the development of executive functions**, which may account for its increasingly creative and flexible nature.



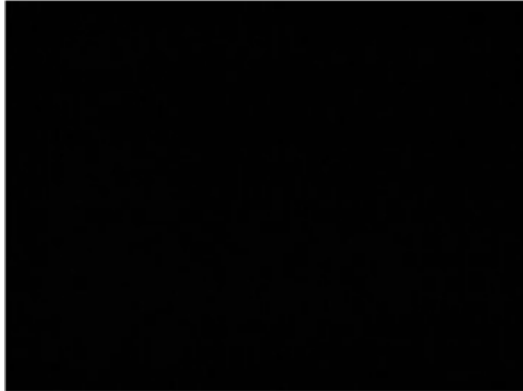
What you see on a daily basis...

...might really be impacted by what is happening below the surface.

| | |
|----------------------------------|-----------------------------|
| No Self-Control | |
| Instant Gratification | Not Paying Attention |
| Lack of Emotional Control | Fighting with Peers |

Activity: “Head & Shoulders”

- Stand up and try a song with Wendy
- What skills did it take to participate?



Activity: “Know Thy Self...”

GROUP ACTIVITY

- Complete self-assessment of EF skills
- Discussion questions:
 - what are your strengths and challenges
 - have your strengths always been a strength, or have they developed over time
 - how do you support your current challenges now as a successful adult
 - how do your EF skills impact your classroom, planning and teaching

QUESTIONNAIRE KEY

| | | | | | | |
|----------------|-------|---------------|---------|------------------|----------|-------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Strongly agree | Agree | Tend to agree | Neutral | Tend to disagree | Disagree | Strongly disagree |

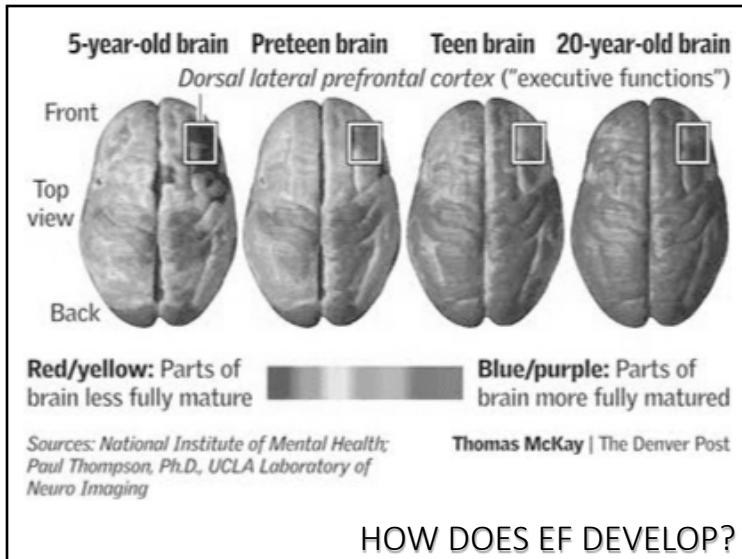
“Who Struggles with EF?”

- Students who experience:
 - Developmental Delays
 - Other Health Impaired
 - Foster care
 - Trauma
 - ADHD
 - Learning Disabilities
 - Cognitive Disability
 - Autism Spectrum Disorders
 - Some emotional disorders (e.g., anxiety, OCD)
- Includes the continuum of children/students with intense needs through average to above average IQ

Typical EF Development

- Average typical development is represented in the next slides
- Rate of development will vary across each individual
- Individuals with special needs will vary even more





Our Three EF Focus Areas for Today

- Working Memory
- Inhibitory Control
- Mental Flexibility (includes shift)

Working Memory Development

| Age | Typical Examples |
|-------------|--|
| 7-9 months | Develops ability to remember that unseen objects are still there (toy hidden under a cloth); learns to put two actions together in a sequence (remove cloth, grasp toy) |
| 9-10 months | Can execute simple means-to-ends tasks and two-step plans; also able to integrate looking one place and acting (e.g., reaching) at another place |
| 3 years | Can hold in mind two rules (e.g., red goes here, blue goes there) and act on the basis of the rules |
| 4-5 years | Comprehends that appearance does not always equal reality (e.g., when given a sponge that looks like a rock) |
| 5-16 years | Develops ability to search varying locations, remember where something was found, then explore other locations (e.g., a game of Concentration or hiding a penny under one of three cups) |
| Adult | Can remember multiple tasks, rules, and strategies that may vary by situation |

Inhibitory Control

| Age | Typical Examples |
|-------------|---|
| 6 months | Rudimentary response inhibition (able to not touch something instructed not to touch) |
| 8-10 months | Begins to maintain focus despite distractions during brief delays in a task |
| 9-11 months | Able to inhibit reaching straight for a visible but inaccessible reward, such as a toy on the other side of a window, and instead delay a moment to recognize the barrier and detour around it |
| 4-5 years | Reductions in perseveration (persisting with following a rule even when knowing that the rule has changed). Can delay eating a treat; also can begin to hold an arbitrary rule in mind and follow it to produce a response that differs from their natural instinct (sort colored cards by shape rather than color) |
| 7 years | Children perform at adult levels on learning to ignore irrelevant, peripheral stimuli (such as a dot on the side of a screen) and focus on the central stimulus (such as a picture in the middle of the screen) |
| 10-18 years | Continues to develop self-control, such as flexibly switching between a central focus (such as riding a bike or driving) and peripheral stimuli that may or may not need attention (road signs and pedestrians vs. billboards and passing houses) |
| Adult | Consistent self-control; situationally appropriate responses (e.g., resists saying something socially inappropriate, resists "tit for tat" response) |

Mental Flexibility (includes Shift)

| Age | Typical Examples |
|-------------|--|
| 9-11 months | Develops ability to seek alternate methods to retrieve objects beyond directly reaching for what's in view |
| 2-5 years | Succeeds at shifting actions according to changing rules (e.g., takes shoes off at home, leaves on at school, puts on boots for rain) |
| 10-12 years | Successfully adapts to changing rules, even along multiple dimensions (okay to shout on playground, not okay in school, okay sometimes in theater rehearsal) |
| 13-18 years | Continued improvement in accuracy when switching focus and adapting to changing rules |
| Adult | Able to revise actions and plans in response to changing circumstances |

Assessing Executive Function

“Can’t do, or won’t do?” Behavior has meaning.

Be an EF detective: find out what the child is capable of, and under what circumstances

- Informants can include parent, teachers, past teachers, coaches, student (observation, work samples, interview)
- Be comprehensive using standardized and informal assessments

Considerations When Assessing Preschoolers

- Assessment needs to incorporate both **controlled performance tasks** that target specific aspects of executive function and **parent/teacher ratings** that target more global aspects of self-regulation in the everyday context (Isquith, et al, 2005)
 - Performance based tasks vs. Real world application
- **Developmental considerations** need to include that young children are not yet in control of cognitive processes, emotional responses, and behavioral impulses (Isquith, et al, 2005)
 - Hallmarks are lack of inhibitory control, significant distractibility, cognitive inflexibility, and lack of organized or planful strategic behavior and self-monitoring
 - What's within the developmental range and what's not?

How Do I Assess and Support

If 1-5% of my students show a challenge with an EF: teach the support to the individual

If 5-20% of my students show a challenge with an EF: teach the support to the small group

If 20-100% of my students show a challenge with an EF: put a universal support in place for all

EF Assessments Pre-School

| Assessment | Type | Ages |
|---|---|-------------|
| BRIEF-P (Behavior Rating Inventory of Executive Function Preschool) | Questionnaire and rating scale for parents and teachers | Ages 2-5:11 |
| CBCL (Child Behavior Checklist) | Teacher report form | Ages 1 ½-5 |
| BASC (Behavior Assessment System for Children) | Teacher, parent, child (self) | Ages 2-5 |
| TRAILS-P | Psychologist | Ages 2-6 |

EF Assessments School Age

| Assessment | Type | Ages |
|---|---|-----------|
| BRIEF (Behavior Rating Inventory of Executive Function) | Questionnaire and rating scale for parents and teachers | Ages 5-18 |
| CBCL (Child Behavior Checklist) | Teacher report form | Ages 6-18 |
| BASC (Behavior Assessment System for Children) | Teacher, parent, child (self) | Ages 6-11 |

Informal Assessment

- Classroom observation of expected EF behaviors
- Work samples
- Informal questionnaires/interviews
 - 4-7 Year olds>*Smart But Scattered 4-13 Year Olds*, Dawson & Guare
 - School age>*Executive Skills in Children and Adolescents: Guide to Assessment and Intervention*, Dawson & Guare, 2010

How Do I Use the Assessment Information?

- Look for common strengths and challenges across assessments that have to do with EF
- Build into goals



Strategies For Promoting EF

E

“Neurons That Fire Together Wire Together”

- ALL BRAINS can develop executive function skills
- Brain pathways only get better at something by doing it repeatedly
- Myelin sheaths grow in the brain by doing

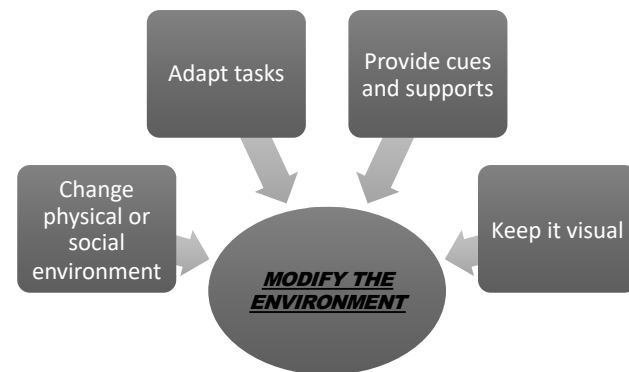
THIS MEANS

- Our planning and teaching must be intentional
- Strategies need to match challenges
- Repetition of strategies must be planned

Three Ways to Manage EF Challenges

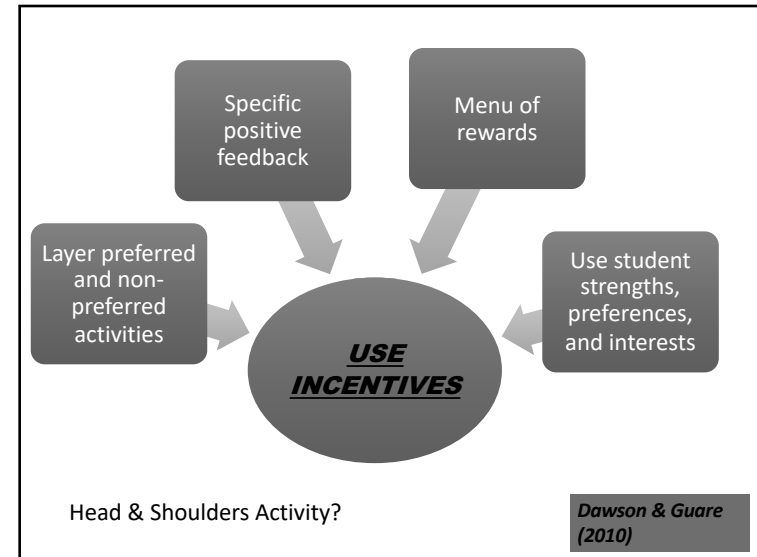
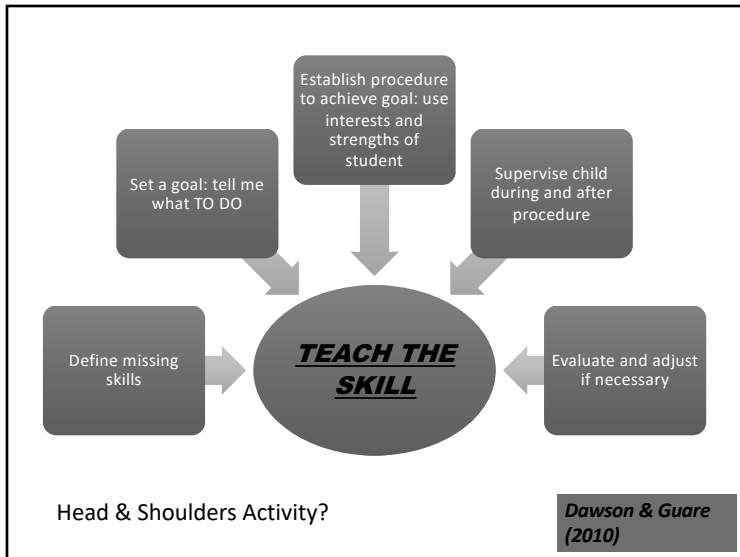
- **Modify the environment**
- **Teach the skill**
- **Use incentives**

*Dawson & Guare
(2010)*



Head & Shoulders Activity?

*Dawson & Guare
(2010)*

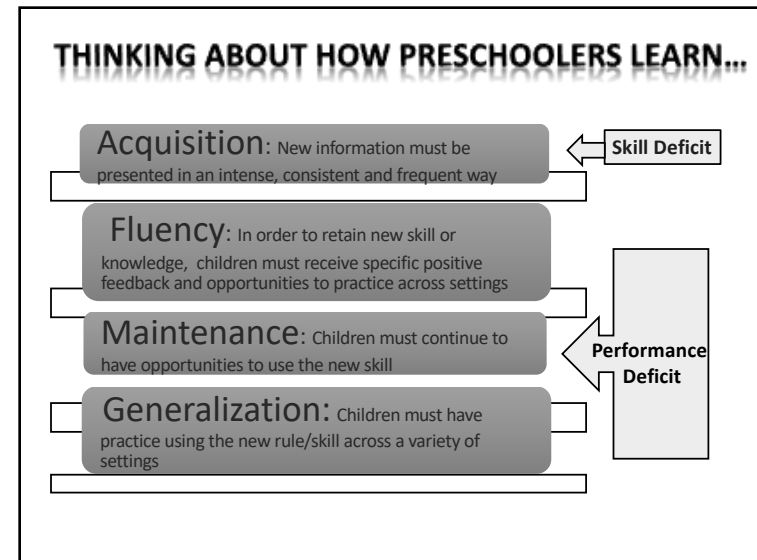


Skill Acquisition Deficit (KNOWING) And Performance Deficit (APPLYING AND DOING)

- **Skill Acquisition deficit:** the absence of a particular skill or behavior
- **Performance deficit:** skill or behavior that is present but not demonstrated or performed

Five Questions to Consider:

- (1) Does the child perform the skill across multiple settings and with multiple persons (including peers)?
- (2) Does the child perform the skill without support or assistance?
- (3) Does the child perform the skill fluently and effortlessly?
- (4) Does the child perform the skill if reinforcement is provided?
- (5) Does the child perform the skill if environmental modifications are made?



Skill Acquisition vs Performance Example

Student struggles with transitioning from one activity to the next activity in and out of the classroom with all staff. Student requires many prompts. Reinforcement is being provided for successful transitions. A visual schedule is in place.

- Skill Acquisition
 - Possible Missing Skills: knowing the schedule; not understanding the visual schedule; understanding time; being able to end an activity when not finished
- Performance
 - Possible Missing Skills: coping with change; not able to lessen anxiety about the schedule/change; large group vs. small group vs. individual activities

Strategies



Video: Dear Teacher...

https://www.youtube.com/watch?v=ITMLzXzGB_s

Activity: Matching Routines and EF Strategies

Using "EF Throughout the Day" Form:

- Identify 4 routines that happen across your day and write them in the blocks
- As each section is presented, you will:
 - Enter the key words that describe the EF in column 1
 - Discuss and enter strategies you are already using for each routine
 - Add new strategies from the presentation
 - Highlight or circle the one new strategy you would like to implement first

| Executive Functioning Throughout the Day | | | | |
|--|-----------|--------------------|----------------|-------------------|
| Routine | Key Words | Current Strategies | New Strategies | Priority Strategy |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Working Memory Video



Working Memory Defined

- *Definition:* The ability to temporarily hold information in one's head in order to use it to complete a task. Working memory allows us to hold information without losing track of what we're doing. It's best understood as an internal scratch pad.
- *Challenges:* orienting to a task; knowing what to pay attention to; maintaining attention and memory; remembering all of the information; recalling oral information/directions; have a need to re-learn information

CHILD'S VIEW: "I can follow directions that have multiple steps. If someone asks me to put on my coat, hat, and mittens, I can keep in mind what I have already done and what I need to do next."



ENTER KEYWORDS INTO COLUMN 1 ON "EF THROUGHOUT THE DAY FORM"

Working Memory Strategies

- Joint attention and imitation skills
- Use multi-sensory teaching strategies
- Labeling (picture/word)
- Written/picture directions (Organize and simplify directions)
- Written/picture checklists
- Visual schedule (First-Then, Part-Day, Whole Day, Whole Class)
- Visual work systems
- Video modeling
- Ask a friend
- Teach with songs
- Game playing
- Play plan/Play mapping
- Recall questions asked when reading a book

Repetition, Consistency, Expectations

ENTER STRATEGIES YOU ARE ALREADY USING INTO COLUMNS 2-5 ON "EF THROUGHOUT THE DAY FORM"

Teach Joint Attention

- Drawing another person's attention for the purpose of sharing
- Orienting to social stimuli
- Sharing positive affect
- Following gaze/point of another person
- Shifting attention between people and objects



Teach Imitation

- Involves a child's ability to copy others'
 - actions with objects (such as banging on a drum or pushing a car)
 - gestures and body movements (such as clapping hands or waving)
 - sounds or words
- Back-and-forth imitation is early conversation without words
 - Helps children learn to -
 - express interest in their caregiver for social reasons (as opposed to expressing basic needs like food or sleep)
 - share an emotion with their caregiver
 - take turns
 - pay attention to their caregiver

Multi-Sensory Teaching Strategies

Presenting information through a variety of senses allows students to engage in more than one way and make connections to the material.

- Singing
- Movement activities
- Tapping rhythms
- Touching actual items
- Tasting and smelling items
- Using manipulatives
- Performing experiments

Multi-Sensory Video



<https://www.youtube.com/watch?v=YiRPC3MHsk4>

Labeling



Directions

| Washing hands | | Crayon Melting | |
|---------------------|---------------|--|--|
| Water on | 1 | Peel crayons. | |
| Hands wet | 2 | Sort crayons. | |
| Rub hands with soap | 3 1:00 | Put crayons in microwave. Press 1:00. | |
| Rinse | 4 1:00 | Stir. Put back in microwave for 1:00. | |
| Water off | 5 | Pour into ice cube tray. Put in freezer. Wait. | |
| Dry | | | |

Directions

Checklists

| Joining In | Inviting Others | Rules for games. |
|------------------|------------------------|------------------|
| Can I play? | Do you want to play? | Take Turns |
| How do you play? | Lets play | Wait Nicely |
| Maybe next game? | What game do you like? | Talk and Share |

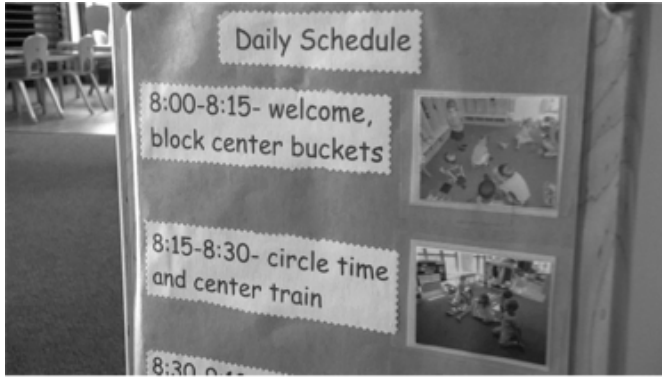
Toby

Circle Time Checklist

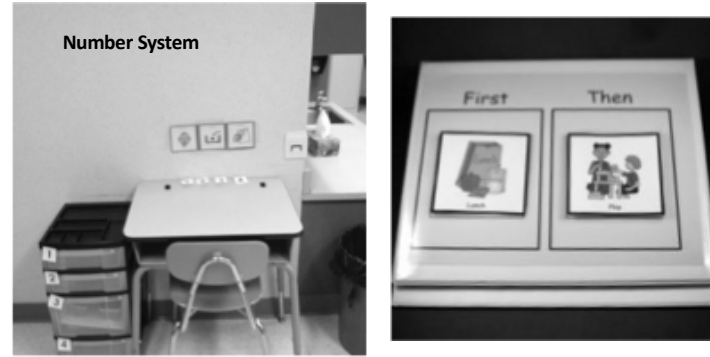
- Find your circle
- sit on floor
- Quiet hands
- eyes on teacher
- Ready to listen

Visual Schedule: Picture-Word

Visual Schedule: Photo-Words



Visual Work System



Video Modeling: Learning Directions for a Game 'Playing a Game with Friends'



https://www.youtube.com/watch?v=Ojb_zmaymE0

Teach the rule "Ask a Friend"



Teaching with Songs: Going on a Bear Hunt



<https://www.youtube.com/watch?v=Wzlcu6tbEko>

Teaching with Game Playing:
What's Missing Activity



<https://www.youtube.com/watch?v=exCrFJLRfms>

Play Plan/Play Mapping



Play Plan/Play Mapping



Recall Questions When Reading a Book

A storybook is read three times in slightly different ways in order to increase the amount and quality of children's analytical talk as they answer carefully crafted questions.

- 1st: teachers introduce the story's problem, insert comments, ask a few key questions, and finally ask a "why" question calling for extended explanation. This is accompanied by elaborations on a few key vocabulary words
- 2nd: capitalize on children's growing comprehension of the story by providing enriched vocabulary explanations and asking additional inference and explanation questions
- 3rd: consist of guided reconstruction of the story in which children recount information as well as provide explanations and commentary

<http://www.readingrockets.org/article/repeated-interactive-read-alouds-preschool-and-kindergarten>

Activity: Sharing Your Resources...

**LET'S ADD SONGS, GAMES, BOOKS
THAT YOU
USE FOR TEACHING WORKING
MEMORY**

Activity: Matching Routines and EF Strategies

- FIRST, ENTER NEW STRATEGIES FROM THIS SECTION YOU COULD USE INTO COLUMNS 2-5 ON "EF THROUGHOUT THE DAY FORM"
- THEN, HIGHLIGHT OR CIRCLE THE ONE NEW STRATEGY YOU WOULD LIKE TO IMPLEMENT FIRST

Inhibitory Control Video



Inhibitory Control Defined

- **Definition:** The ability to stop and think before action; the ability to manage your emotions and behavior in accordance with the demands of the situation; age appropriate self-regulation
- **Challenges:** talking out; leaving assigned area; immediate, strong reaction to situations; difficulty stopping a quick response (verbal or physical); have trouble controlling behaviors that are irritating to others; difficulty expressing emotions appropriately for his/her age

CHILD'S VIEW: I can do what I am supposed to do rather than what I want to do. For example, when asked to clean up, I can put my toys away instead of playing with each toy I pick up.



ENTER KEYWORDS INTO COLUMN 1 ON "EF THROUGHOUT THE DAY FORM"

Inhibitory Control Strategies

- Directly teach expectations
 - Teach a cue for "stop"
 - Teach the "wait" process
 - Teach calming strategies (including sensory supports)
 - Teach turn-taking
- Visual supports to indicate expected behavior (includes PBIS expectations)
- Social narratives (e.g., Tucker the Turtle)
- Teach missing skills
- Teach and reinforce replacement behaviors
- Music/songs to teach concepts
- Games
- Use books to teach strategies

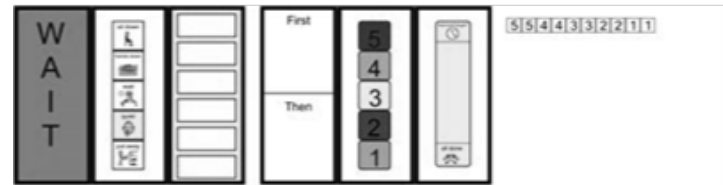
Repetition, Consistency, Expectations

ENTER STRATEGIES YOU ARE ALREADY USING INTO COLUMNS 2-5 ON "EF THROUGHOUT THE DAY FORM"

Teach STOP Cue




Tri-Fold Visual Support



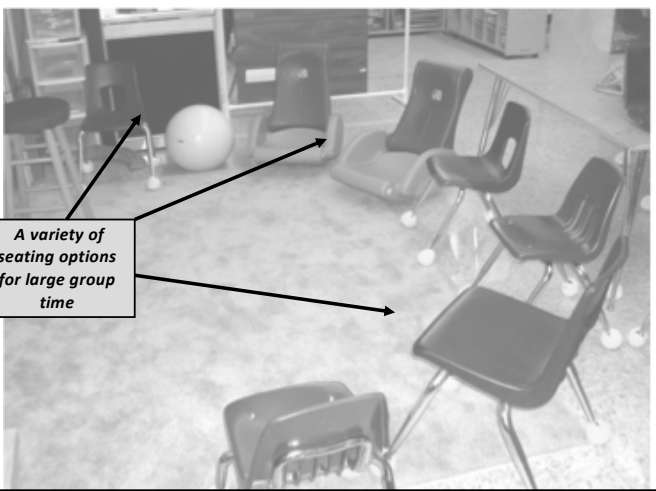
Teach WAIT Cue

Wait



The image shows two parts. On the left, a line drawing of a person with curly hair is shown from the chest up, with their right hand held flat, palm facing forward. To the right of this person is a circular clock icon with hands pointing to approximately 1:50. On the right side of the image, there is a large, bold black silhouette of a person sitting on a chair. To the right of this silhouette is another circular clock icon, identical to the one on the left. Above the silhouette and clock icon is a rectangular box with the word "Wait" written inside in a simple, sans-serif font.

Teach CALMING Supports: Seating Options



A variety of seating options for large group time

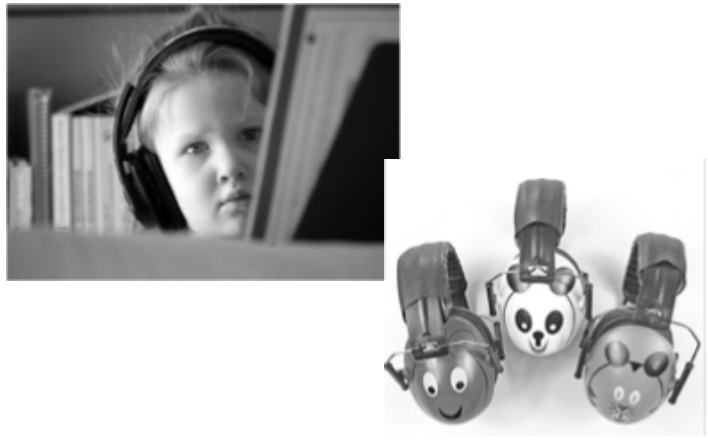
The image is a black and white photograph of a classroom. In the foreground, there are several different types of chairs and stools. Some are standard school chairs, some are stools, and one is a ball. In the background, there are more chairs and a desk. A text box with the text "A variety of seating options for large group time" has three arrows pointing to different types of seating in the room.

Teach CALMING Supports: Fidgets



A black and white photograph of a basket filled with various fidget toys. The toys include a large, textured ball, a small robot-like figure, a book titled "gelli ball", a small stuffed animal, and several other small, colorful objects. The basket is sitting on a wooden floor.

Teach CALMING Supports: Headphones



The image consists of two parts. On the left, a black and white photograph shows a young child wearing large, over-ear headphones. On the right, there is a collection of three colorful, cartoonish headphones. One is blue with a panda face, one is red with a bear face, and one is green with a bear face.

Teach CALMING Supports: Sensory Play



Teach CALMING Supports: Squeeze and Loosen

- Use with gestures and/or visual supports
 - Clench fists tightly then release
 - Stiffen body then shake
 - Move body then freeze



Kelly Mahler, MS OTR-L
<https://www.mahlerautism.com/>

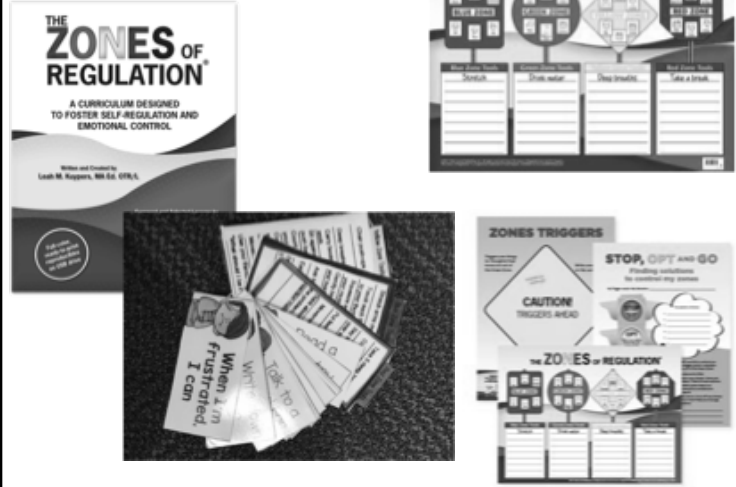
Teach CALMING Supports: Yoga for Kids



Ways to encourage breathing exercises



Zones of Regulation



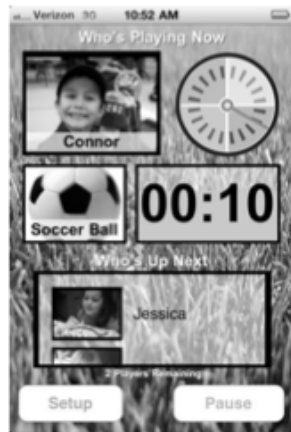
Zones of Regulation—in the Classroom



Turn Taking



App: The Sharing Timer

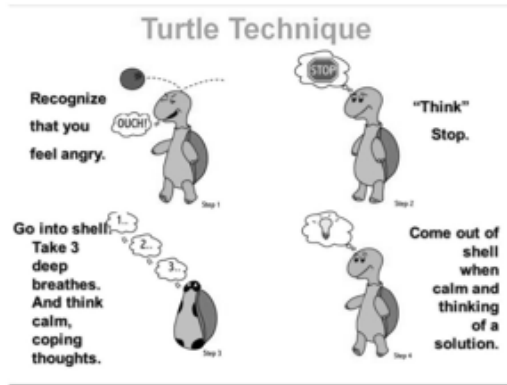


Visual Supports to Teach Expectations



Social Narratives---Tucker the Turtle

Turtle Technique




Social Narrative

When someone is hurting or annoying me I will:

1. Look at them.
2. Put my hand up in a 'stop' sign.
3. Say to the person, "Stop it, I don't like it."
4. If it doesn't work I will get help from a teacher.

When I take a deep breath,



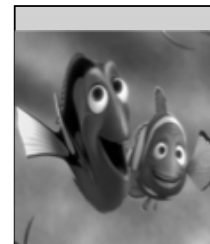
I smell a flower, Then blow out a candle.

Teach Missing Skills: Visual Scales

Voice Scale


| | | | | |
|------------|---------|-----------------|--------------|----------------|
| 1 | 2 | 3 | 4 | 5 |
| no talking | whisper | classroom voice | please voice | emergency only |

Teach Missing Skills: Power Cards



Dory and Nemo share toys. I will try and share toys.

Dory and Nemo are friends. Friends share their toys. Even if the toy is their favorite toy. Friends share.



Sam I Am says trying new food is good. I will try new foods.

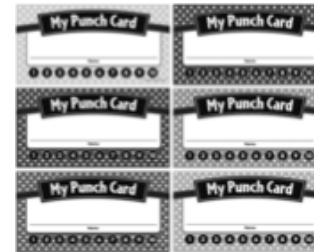
Sam I Am tries new foods. He smells the food. He takes a small bite. I can try new foods.

Teach Replacement Behaviors & Reinforce

Rachel's team is teaching her how to take a break using a visual symbol rather than yell loud enough to disrupt read aloud time. She earns a punch on her "Great Choices" card each time she uses the break card and when it is full she gets a reinforcer from her choice basket of favorite items.



More Reinforcement Systems



Punch Card

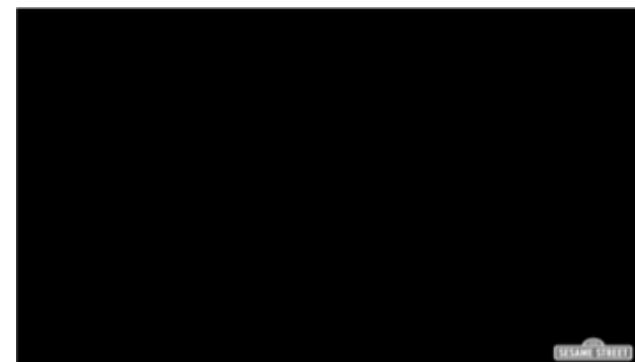


Puzzle Token Cards

Reinforcement: Token Board



Teaching with Songs: Cookie Monster "Me Wait"



<https://www.youtube.com/watch?v=9PnbKL3wuH4>

Teaching with Songs: FREEZE



https://www.youtube.com/watch?v=lgr_XCHqY68

Teaching with Songs: Belly Breathing



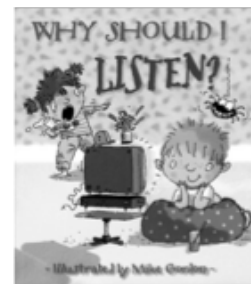
<https://www.youtube.com/watch?v=mZbzDOpyIA>

Games---like Simon Says, Red Light-Green Light, Ring Around the Rosie (we all _____)



https://www.youtube.com/watch?v=LEdIIDJDN_g

Books—that teach strategies

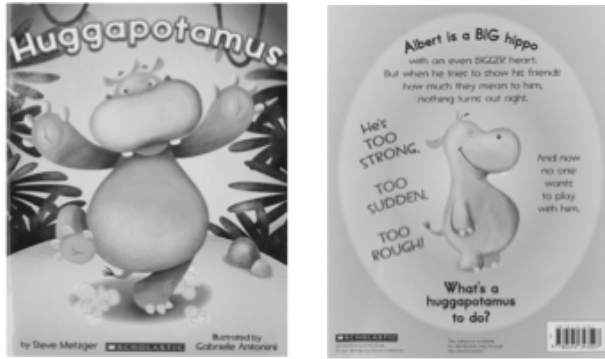


Points out the importance of being a good listener



Explores the numerous feelings that we all encounter such as frustration, shyness and silliness.

Books—that teach strategies



Albert is a big hippo with an even bigger heart. But when he tries to show his friends how much they mean to him, nothing turns out right. And now no one wants to play with him. He's too strong, too sudden, and too rough! What's a huggapotamus to do? His friends then teach him how to calm down.

Activity: Sharing Your Resources...

**LET'S ADD SONGS, GAMES, BOOKS
THAT YOU
USE FOR TEACHING
INHIBITORY CONTROL**

Activity: Matching Routines and EF Strategies

- FIRST, ENTER NEW STRATEGIES FROM THIS SECTION YOU COULD USE INTO COLUMNS 2-5 ON "EF THROUGHOUT THE DAY FORM"
- THEN, HIGHLIGHT OR CIRCLE THE ONE NEW STRATEGY YOU WOULD LIKE TO IMPLEMENT FIRST

Mental Flexibility (including Shift) Video



Mental Flexibility (including Shift) Defined

- Definition: ability to move freely from one situation to another by shifting attention, processing new information, and changing behaviors to fit new problems and pressures in the environment; able to revise plans and problem solve in the face of obstacles, setbacks, new information, or mistakes; able to adjust to changes in plans or schedule
- Challenges: trouble solving problems; frustrated when first attempt at problem solving doesn't work; difficulty taking on new tasks; understanding idioms/puns; knowing letters combinations can have different sounds; difficulty with transitions; trouble with new situations and environments

CHILD'S VIEW: I can adjust my behavior to the situation I am in. For example, I follow different rules when I am at the library versus at the park.



ENTER KEYWORDS INTO COLUMN 1 ON "EF THROUGHOUT THE DAY FORM"

Mental Flexibility (including Shift) Strategies

- Consistent, predictable visual calendar/schedule
- Talk about changes in routine/visually show changes in routine
- Priming for new situations (verbal and/or visual)
- Teaching expected and unexpected behaviors
- Role Playing to practice expected behaviors
- Self-calming techniques (see Inhibitory Control section)
- Teach organizing information
- Teach problem solving
- Teach growth mindset strategies (e.g., Pete the Cat books & videos)
- Teach with word play (e.g., words have different meanings)
- Teach with songs
- Teach with books
- Teach with games (e.g., change the rules, reverse order)

Repetition, Consistency, Expectations

ENTER STRATEGIES YOU ARE ALREADY USING INTO COLUMNS 2-5 ON "EF THROUGHOUT THE DAY FORM"

Schedules: Whole Class



| | | |
|-------|--|-------------|
| 8:30 | | Unpack |
| 8:45 | | Circle Time |
| 9:15 | | Music |
| 10:05 | | Snack |
| 11:00 | | Math |
| 11:40 | | Read-Aloud |
| 12:00 | | Lunch |

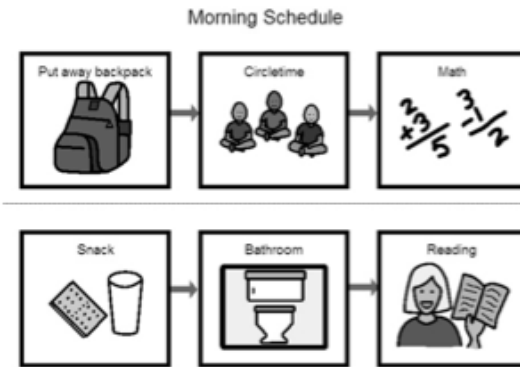
Schedule: First-Then Photo

| FIRST | THEN |
|--------------|-------------|
| | |
| Snack | Doll |

Schedule: First-Then Picture Word



Schedule: Icon



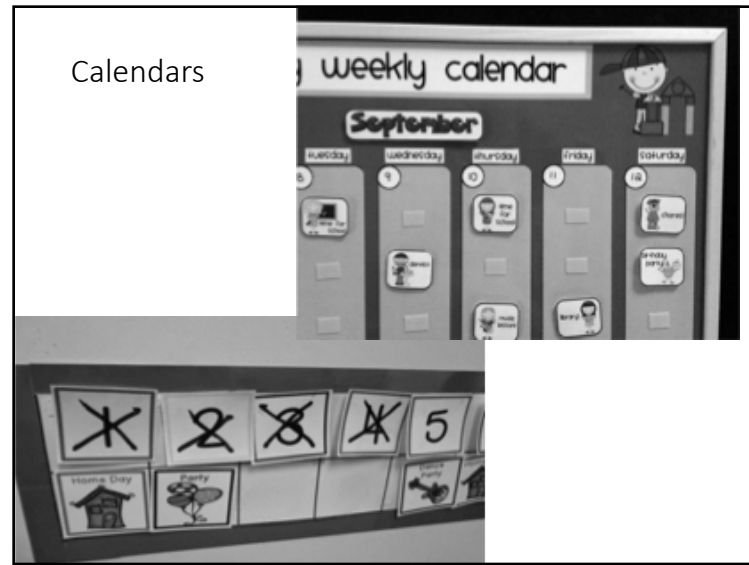
Schedule: Choiceworks App



- Schedule, Waiting and Feelings Boards
- Companion Books
- Image and audio library
- Speaks boards out loud



Calendars



Teach Changes in Routine

CHANGE ALERT

| | |
|-----------------------|-------------------------|
| Instead of | We Will Have |
|-----------------------|-------------------------|

OOPS

CHANGE IN SCHEDULE



Change Fixed

| | |
|--|--|
| | |
|--|--|

Teach Changes: Social Narratives

Changes are okay



<http://www.sfinclusion.org/resources/#Social>
Click "Social-Emotional Development"

Teach Changes: Timers



Time Tracker



Time Timer



Time Timer



Teaching Expected and Unexpected Behaviors

Expected vs Unexpected Behaviors

Expected Behaviors

Unexpected Behaviors

| | | | |
|--|------------|--|------------|
| Your teacher calls on you to line up. You walk to line with a calm body. | | Running in the hallway. | |
| Expected | Unexpected | Expected | Unexpected |
| Another student is in your line spot. You push them. | | You have a question. You raise your hand and wait for your teacher to call on you. | |
| Expected | Unexpected | Expected | Unexpected |

Role Playing to practice expected behaviors

<https://www.youtube.com/watch?v=OwEqmXRtrH4>

Teach Organizing Information:
Graphic Organizer

Teach Organizing Information:
Graphic Organizer

Teach Organizing Information:
Task Analysis

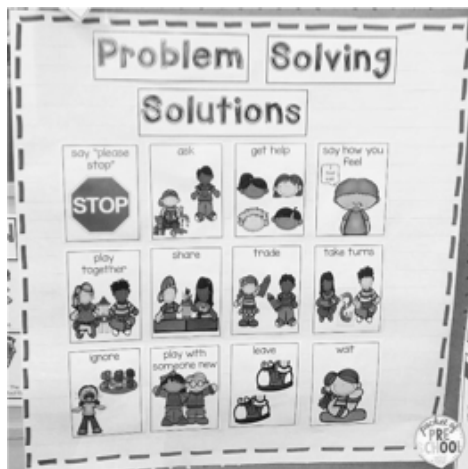
| Calm Down | |
|-----------|---------------------|
| | Sit on chair |
| | Feet on floor |
| | Fold hands |
| | Take 3 deep breaths |
| | Count to 10 |
| | Good work |

| I go to the potty | |
|-------------------|-----------------------|
| 1 | Pants down |
| 2 | Underwear down |
| 3 | Sit on potty |
| 4 | Go pee pee or poo poo |
| 5 | Wipe |
| 6 | Flush toilet |
| 7 | Underwear up |
| 8 | Pants up |

Teach Problem Solving



Teach Problem Solving



Teach Growth Mindset

The 4 A's

- **Approach:** How to scaffold learning situations that are relevant to the child's ability
- **Apply:** How to help the child apply prior learning successes to new obstacles and promote self-efficacy
- **Assess:** How to teach the child to reflect on the outcome of a learning experience to ensure further growth
- **Achieve:** How to prepare the child to achieve their next learning opportunity through growth mindset

Teach Growth Mindset

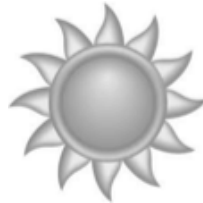
- Use process praise
 - “I like how you used blue and green to make the picture”
- Teach the power of YET
 - Student: “I can’t do it!”
 - Staff: “You can’t do it yet. You’re still learning. Keep trying!”
- Share stories of resilience and overcoming challenges

Teach Growth Mindset: The Power of Yet



<https://www.youtube.com/watch?v=XLeUvZvuvAs>

Teach with Word Play



Teach with Word Play



What goes up
when the rain
comes down?
Umbrellas.

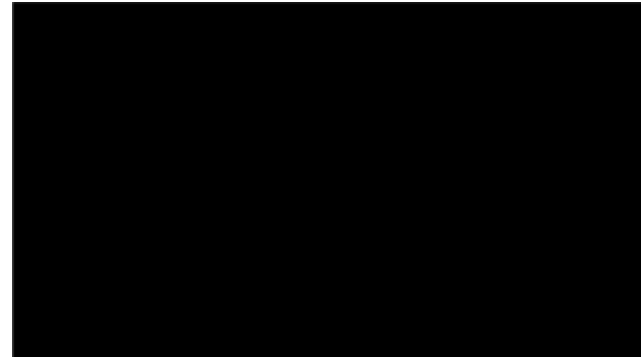
100xHaHaHa.com
100xhahaha.com/riddles



Teach with Songs:
Transitioning and Teaching Expectations



Teaching with Songs:
Pete the Cat "My Groovy Buttons"



<https://www.youtube.com/watch?v=HMyGirr5lrA>

Teach Using Books



Teach Using Books
(and Puppets)
(and Snack)



Teach with Games



Chutes and
Ladders—
reverse up
and down



Hi Ho Cheerio—
Might lose all the
cherries and have to
earn them back

Teach with Play



- Dramatic Play
 - What are we going to play?
 - Who is going to be each role?
 - What are we going to do and say?
- Games that have variable rules
 - Tag
 - Hide 'n Seek
 - Board games



Activity: Sharing Your Resources...

**LET'S ADD SONGS, GAMES, BOOKS
THAT YOU
USE FOR TEACHING
MENTAL FLEXIBILITY**

Activity: Matching Routines and EF Strategies

- FIRST, ENTER NEW STRATEGIES FROM THIS SECTION YOU COULD USE INTO COLUMNS 2-5 ON "EF THROUGHTOUT THE DAY FORM"
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ACTIVITY

Action Plan: Matching Routines and EF Strategies

- Locate Action Plan form and enter your team name
- Review the 3 strategies you circled as a priority to begin
- Choose one of the 3 strategies
- Enter a goal for learning the chosen strategy after “Year 1 Goal:” on the Action Plan form
- Break down the goal into steps and enter the steps into Column one: “Steps to Meet Goal”
- Decide who will be responsible for each step and enter into Column two: “Responsibilities”
- Identify Resources you have and Resources you need in Column three: “Resources”
- Identify other staff members that may need to be involved in each step under Column four: “Others to Involve to Complete Action Step”
- Decide on when each step will be done in Column five: “Timeline for Completion”
- If there is time remaining, feel free to choose another priority strategy and develop a second action plan.

Action Plan Example

Action Plan: Prioritization and Planning for Next Steps

Team: Niagara

Year 1 Goal: Research, learn about, and implement visual supports

| Steps to Meet Goal (What Will Be Done?) | Responsibilities (Who Will Do It?) | Resources (A. Resources Available) (B. Resources Needed) | Others to Involve to Complete Action Step | Timeline for Completion (Day/Month) |
|--|---|---|---|--|
| Step 1: Find resources to learn about visual supports like schedules, cue cards, directions, checklists | Jeanne, teacher; Mary, teacher; Mattie, SLP; Rabinoq, para | A. OCALI Lending Library B. OCALI ASD Strategies in Action; OCALI Autism Internet Modules; OCALI Resource Gallery | Carla, Teacher who knows a lot about structured teaching and uses tons of visual supports | Oct. 10 |
| Step 2: Each of us (Jeanne, Mary, Mattie, Rabinoq) will use the resources we found to learn about one of the areas and report out to the others | Jeanne, teacher; Mary, teacher; Mattie, SLP; Rabino, para | A. OCALI Lending Library; OCALI ASD Strategies in Action; OCALI Autism Internet Modules; OCALI Resource Gallery B. Somewhere to meet together; projector; see if Carla can join us | Ask our supervisor and principal about letting us work on visual supports during our professional development day | Nov. 12 |
| Step 3: After hearing all of the information, team will choose one of the areas to focus on first for creation and implementation | Jeanne, teacher; Mary, teacher; Mattie, SLP; Rabino, para; Carla, teacher | A. Research material; computer; printer; laminator; hook and loop tape B. | | Jan. 14 |

Books For Educators & Parents

- *Executive Skills in Children and Adolescents: A Guide to Assessment and Intervention* – Peg Dawson and Richard Guare
- *Late, Lost, and Unprepared: A Parent's Guide to Helping Children with Executive Functioning* – Joyce Cooper-Kahn and Laurie Dietzel
- *Smart But Scattered* – Peg Dawson and Richard Guare



OCALI Lending Library

OCALI Find content about: Topics in: Media Types

Lending Library

To create a Lending Library account, please download the PDF application and mail or fax it to OCALI. Once your application has been processed and your account has been established, we will notify you via email or mail. For assistance with the OCALI Lending Library, please contact OCALI toll free at 866.886.2254 and ask for the lending library or email lendinglibrary@ocali.org.


Continue to the Lending Library

http://www.ocali.org/project/lending_library

OCALI Lending Library  Lending Library AT Device Lending Library

Organization Kit





OCALI Lending Library  Lending Library AT Device Lending Library

- Idea Organizer
- Popplet
- Time Timer
- Talking Timer
- Time's Up
- i Get...My Schedules at School
- Social Skills Stories
- Visual Schedule Planner
- Choiceworks
- My Video Schedule
- Functional Planning System
- Everyday Grooves
- Big Day Lite
- iEarnedThat
- Working4
- Preference & Reinforcer Assessment
- Epic Win
- Visules
- Remember the Milk
- iHomework
- Idea Sketch
- Voice Reminders!
- VoCal XL
- Can Plan
- Tiny Finder
- First Then Visual Schedule
- TextMinder





THANK YOU! PLEASE COMPLETE EVAL FORM

FOR MORE INFORMATION, PLEASE CONTACT:

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