

Welcome to PASS 39

Executive Functioning Presentation

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Presenters:

Chanel Pike, CES G2

Ben Baird, HMS LBS

Jean Patrick, HMS LBS

Tracy Parent, IS

Jindy Anderson, G6 GLAD



Agenda

1. Executive Functioning Overview

2. How Teachers Support and Enhance EF in the Classroom

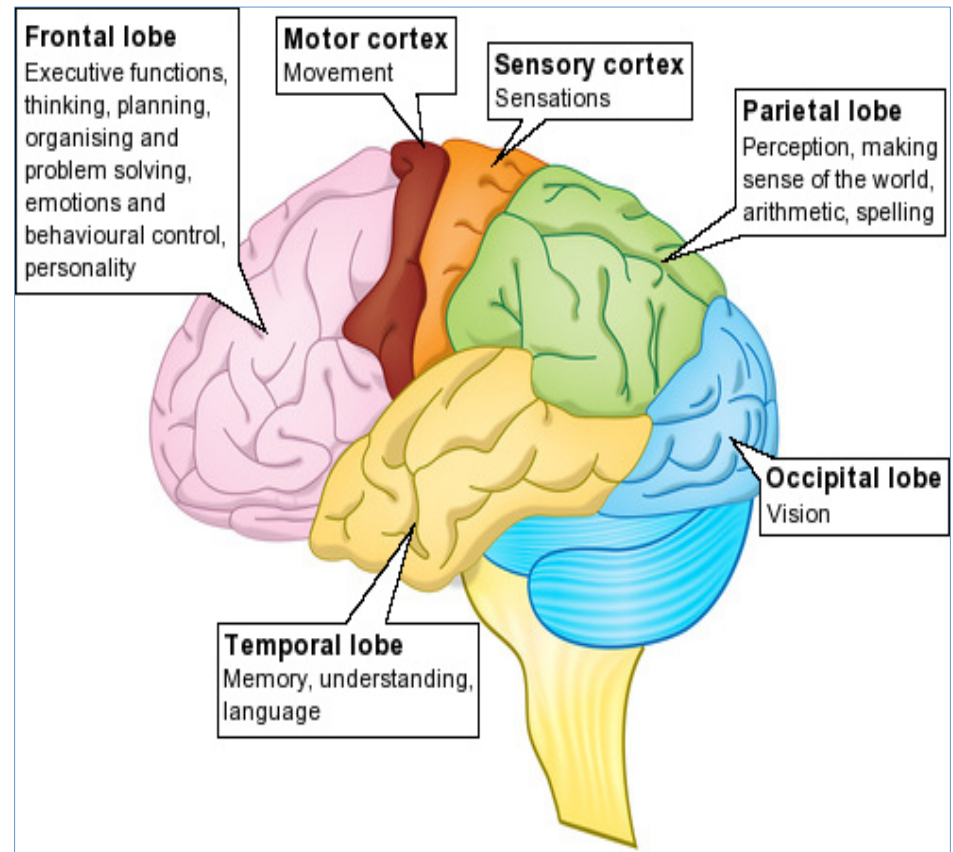
3. Tips for Parents

Questions and Answer

What are EXECUTIVE FUNCTIONS?

Cognitive processes occurring in the the brain that allow one to:

- Plan and Set Goals
- Organize and Prioritize
- Self Regulate Behaviors
- Manage Time
- Focus and Pay Attention
- Analyze and Make Decisions
- Solve Problems
- Be Flexible
- Evaluate Decisions



Creating & following a Plan

Time Awareness



Organization



THE COACH



Working Memory



Meta-cognition



Regulation of Attention

Executive Functions

1. **Inhibition** – ability to stop one's own behavior at appropriate time, including stopping actions and thoughts
2. **Shift-** ability to move freely from one situation to another and think flexibly in order to respond appropriately to situation
3. **Emotional control** – ability to modulate emotional responses by bringing rational thought to bear on feelings
4. **Initiation** – ability to begin task /activity and independently generate ideas, responses, or problem solving strategies

Executive Functions

5. **Working Memory**- capacity to hold info in mind for purpose of completing a task

6. **Planning/organizing**- ability to manage current and future-oriented task demands

7. **Organization of Materials**-ability to impose order on work, play, and storage spaces

8. **Self-Monitoring**- ability to monitor one's own performance and measure it against some standard of what is needed or expected

How might EF weaknesses appear in the classroom?

- Conceptual reasoning abilities may be stronger than their output and productivity
- Inefficient with work or showing what they know
- Coordinating sub skills
- Getting started on an assignment
- Sustaining attention
- Remembering directions or turning in work
- Managing emotions or unexpected emotional response

Academic Problems Linked to Executive Functioning

Activation

Organizing, prioritizing, and activation to work

Procrastination
Problems organizing projects and written work.
Problem solving

Focus

Focusing, sustaining focus, and shifting focus to task

Once started, easily distracted.
Problems transitioning.
Over focus.

Effort

Regulating effort, sustaining effort, and processing speed

Drowsiness.
Slow completion.
Slow response time.

Emotion

Managing frustration and modulating emotions.

Temper tantrums
Argumentative
Excitability
Moody

Memory

Utilizing working memory and activating recall

Remembering Facts
Learning Foreign Languages
Losing Items

Action

Monitoring and self regulating actions

Impulsivity
Social Judgment

The View of the Mountain



How do EF processes affect academic performance?



The Funnel Model

- Students with EF difficulties often experience an overload of info so the input exceeds the output.
- They struggle to plan and organize as well as prioritize the information
- The result is a clogged funnel. Because these students can't process this information rapidly enough and cannot shift flexibly, they can't unclog the funnel to produce finished work.



Sweeney 2002

Impaired Executive Functioning

Ways we can help...



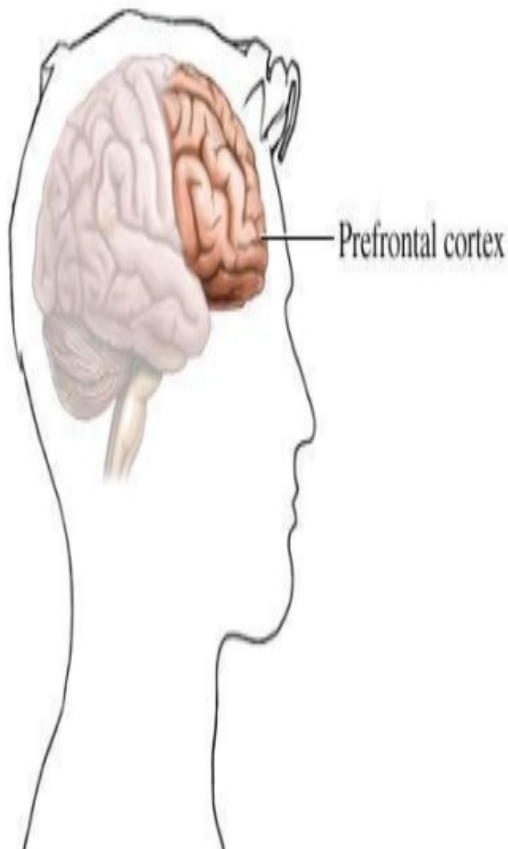
How Do EF Skills Develop?

- Research shows EF skills directly related to brain development.

- Parallel between development of the brain and development of the child's ability to act, think, and feel.

- Frontal lobe systems make up the base for EF skills.

- Prefrontal brain systems are the last to fully develop and they are the final, common pathway for managing information and behavior from other brain regions.



What Does This Mean?

- Executive Functioning Skills are not **FIXED** and **STATIC** but rather they are **DEVELOPING** and **GROWING** over time AND at varying rates.
- As skills develop, we may need to provide accommodations and consistent, dynamic supports for those who struggle with weak executive functioning processes.

How To Help Children with EF

Two Primary Roles:

- Help children be successful in daily lives
- Teach skills and approaches that allow children to be independent in the long run
 - **Temporary supports** are good but need to be careful not to reinforce overdependence or learned helplessness.
 - However **need for short term** supports while kids build better executive skills to **reduce negative** academic and emotional consequences such as low self esteem, depression and anxiety

Building Executive Skills

- LONG TERM
- Need explicit teaching and practice to improve executive competence.
- Team effort
- Develop habits and routines
- Repetition, repetition, repetition
- Once automatic, bypasses executive system.
- HOWEVER automaticity requires.... Repetition!



Make Process Statements

- To help increase resilience and perseverance in working toward a solution
- Shows we value developing intelligence, putting in effort and ability to apply strategies to solve problems and approach challenge

Message:

When you have a challenge and working on it, you are growing your brain. So may be working hard but just haven't figured it out yet.

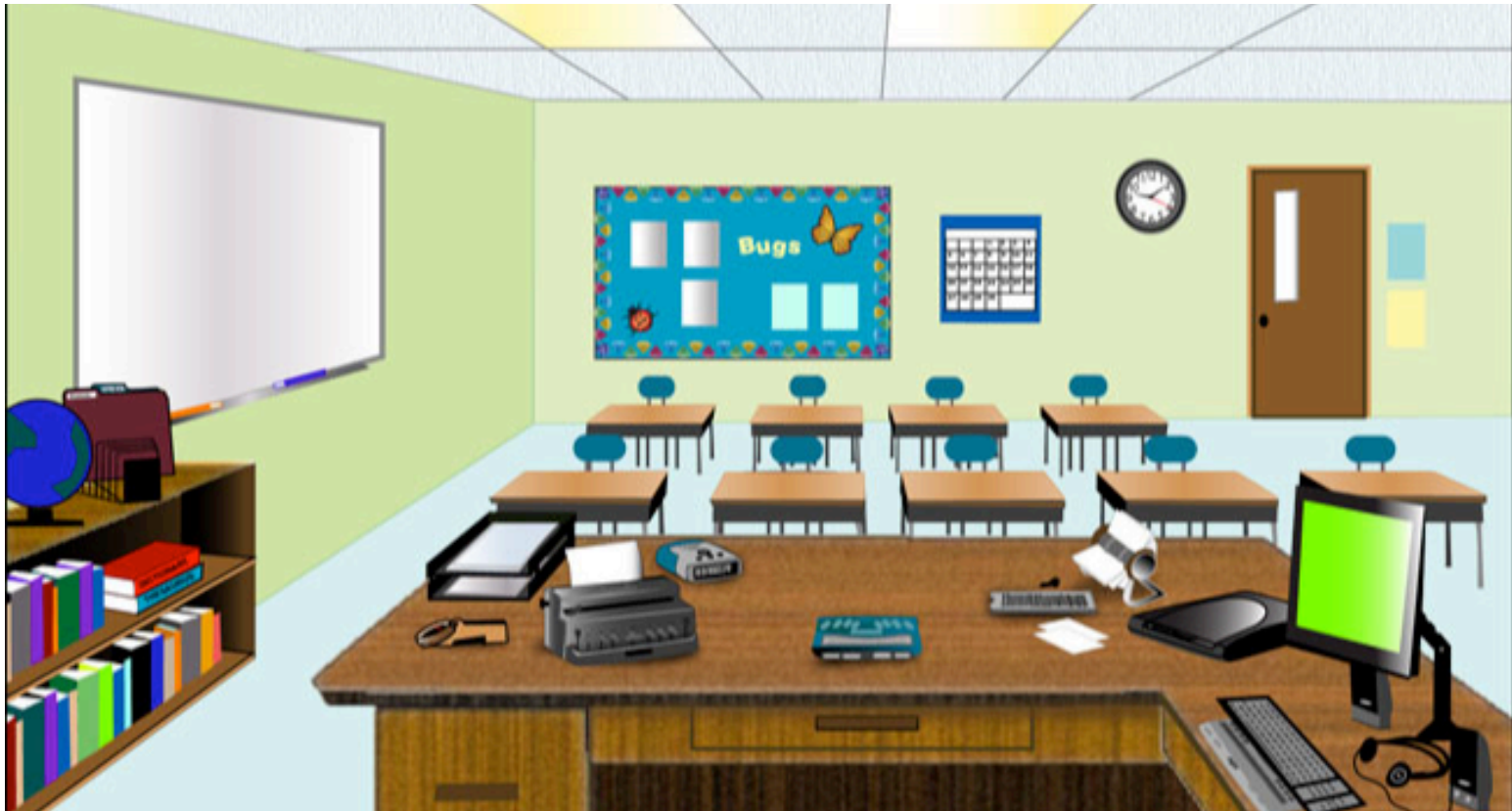
Takes practice but **WORTH IT!!**

Metacognition

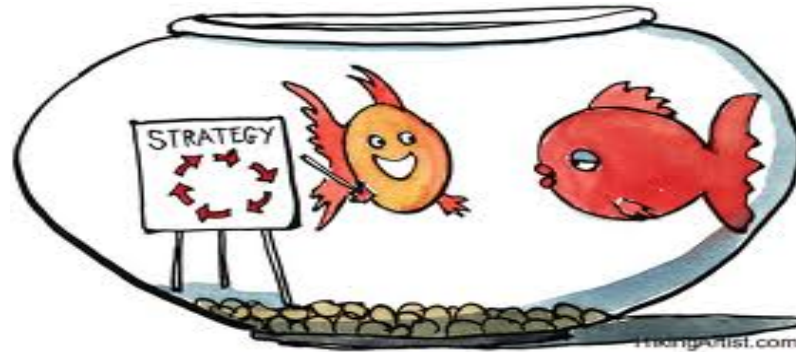
Students need to understand their own learning styles and we must help them discover strategies that work well for them. (Why, where, when and how to apply these strategies as well.)

METACOGNITION: the ability to think about one's own thinking and learning. To understand which strategies will work well for them as well as when where, why and how to apply the strategy.

Bringing In The Classroom



Why We Integrate EF Strategies into classroom curriculum?



- Help students understand their learning profiles
- Increase self-confidence and encourage independence
- Promote motivation, focused effort and hard work
- Teach students how to learn (they need taught strategies)
- Empower students to take control over their learning

Range of EF Skills

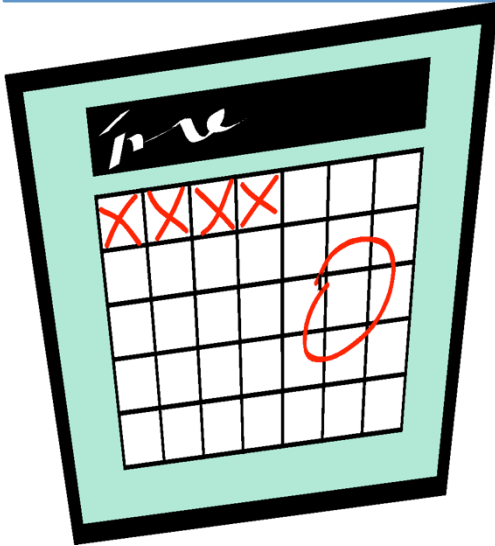
- Range of strategies
- Developmental pace for each child is different
- Differentiated
- When do we get concerned?
 - Teacher sees it in the classroom
 - Parents see it at home
 - Communicate about the issue
 - Pair the same language or refer to same system teacher is using
- Response to Intervention
 - Seek other resources
 - iTeam (student assistance)
 - Tiered resources



Building a Prosthetic Environment

- Dr. Barkley refers to process of accommodating kids as building a “prosthetic environment”
 - Designed to lighten the load on executive system
 - These could include external supports (visuals) limits, supervision, etc.
 - Need to change over time and hopefully faded out
 - These short term supports are necessary but also need long-term interventions to strengthen EF or build skills to compensate for executive weaknesses

Incorporate Rules and Routines



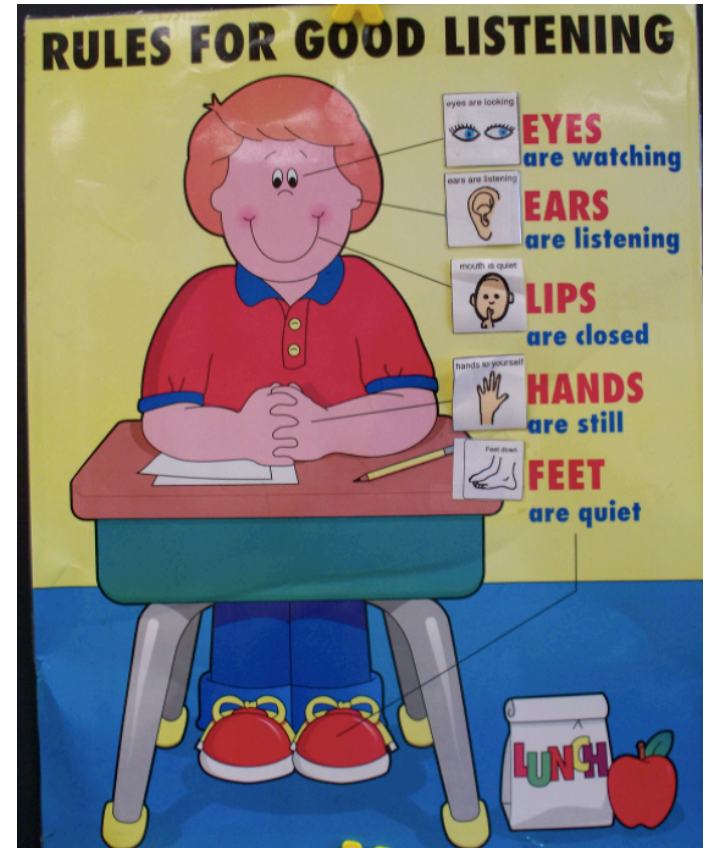
My Classroom Job

For Monday:

1. Collect Media books from classmates
2. Put on cart
3. Wheel down to media center
4. Return to class

Rules for asking for help

1. I stay in my seat
2. I raise my hand
3. I quietly wait for the teacher to call on me
5. I get help, then I practice
6. I can do this!!! I feel good!!!



CORE STRATEGY FOR CHILDREN WITH AUTISM!

Prepare students
develop transition routines



Foster EF skill development in the classroom

- Direct and explicit explanation of key concepts and vocabulary should be provided, so students can access info.
- Steps involved in learning specific things should be modeled
- “Think alouds” can be used to show students how to think or approach a problem
- Information should be broken down into manageable chunks or steps

.....more for the classroom

- Background info may be discussed to scaffold new concepts so that all students have the same level of understanding
- The goal of a strategy use should be clear to both teacher and the students (Ex. Student should apply and understand at least one memory strategy independently on a test)
- Teachers typically assess whether the goals are being met on a regular basis (Ex. Track the # of times use a strategy in class.
- Teachers typically assess whether students are using strategies effectively on a regular basis.

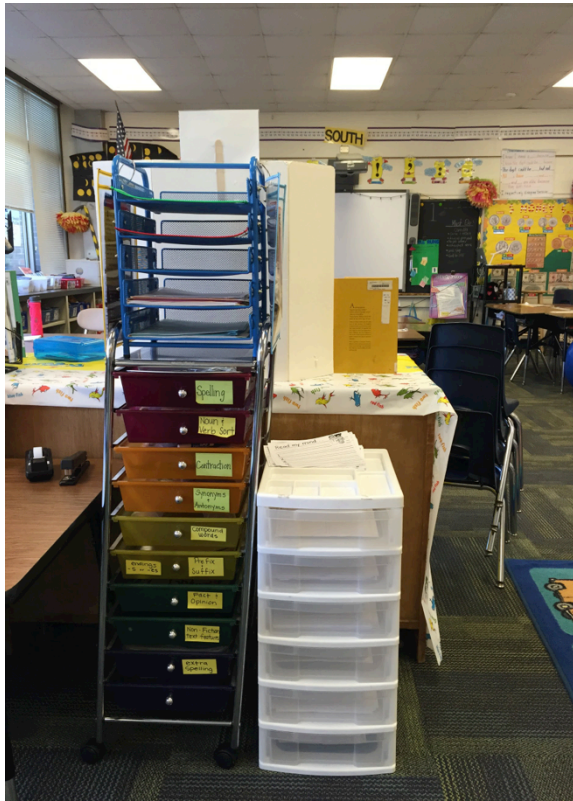
Additional resources for the classroom

- Engage young children in classroom discussion daily.
- Encourage flexibility in the classroom.
- Model self regulation strategies
 - Incredible 5 point scale
 - Zones of regulation
 - How Does Your Engine Run
- Narrow the goals – set the target
- Make statements related to effort! Give specifics!
- Reassure students that making mistakes helps with learning.



Classroom Structure and the Learning Environment

Thoughtful arrangement of the indoor and outdoor environments supports learning goals for students.



Physical Space
Desks
Supply Center
Learning Centers
Resource Materials



Classroom Structure and the Learning Environment

Thoughtful arrangement of the indoor and outdoor environments also supports learning goals for students.

- Posters with Expectations around the room
- Grouped in pods of mixed ability level
- Students can have preferential seating
- Materials: Labeled and color coordinated
- Supplies: Community center with labeled extra supplies
- Desk: One side is folders and one side is work book
- Homework folder: Weekly calendar: labeled homework and bring home. Regular schedule for the week so student know.



Create a Structured Predictable Environment

- Organized Classroom
 - Create different learning spaces for different activities
 - Areas are defined and children are aware of expectations
 - Centers have everything that is needed in the area so children do not waste time looking for materials, understanding expectations.
 - Children have the option to move to back table with quieter space as needed

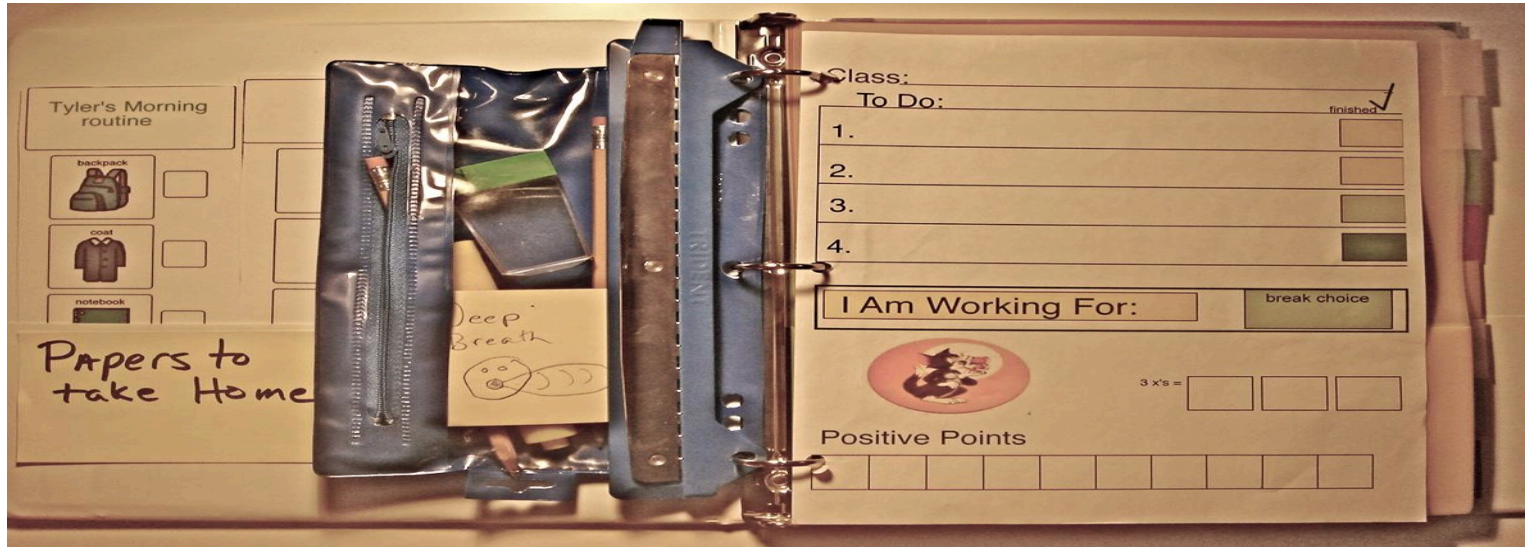


Structure the Learning

- Everything is pretaught. It is not assumed children already know routines and expectations. Incremental steps and gradual release of responsibility onto student
- Organize and simplify directions.
 - (clear, concise and concrete)
- Language Arts Rotation: two 20 minute rotations with some choice. Chime rings
 - Always something to do within the 20 minutes so students understand this is always a work time and they know what comes next without prompting.
 - Same with Math rotations, expectations do not change, consistency.
- Reflect with Thumb over Heart



Organize the Student



Use color-coded notebook planner to:

- Record homework, tests, long term project interim dates
- Keep pencil bag with school supplies inside
- Have color coded folders and classroom rules for each class
- Include laminated schedule/behavior chart inside binder
- Keep sticky notes to write reminders of calming strategies
- Can use communication device or iPad calendars as daily planner
- Technology 1:1 environment is creating new system for organization



Schoolology Home Page

Schoolology Calendar

Course List

***Grades

[Student Example](#)



Academic Strategies Class Schology Teacher Agenda

April Agendas

Agenda April 9, 2015

Hi AS Scholars:

1. Assignment Notebook Check:

- Science: make study tools for Science test – Wed/Thursday

- ELA Flanigan: Fishbowl due Friday 4/10

 Spelling Unit 14 – due Friday 4/10

 Argumentative essay revisions – due Friday 4/10

- Math: 3.4 – due Friday 4/10

- ELA Mason: Root Words quiz; Friday 4/10

 Fishbowls: due Friday 4/10

2. Think Cerca reading comp article/questions: work on for 20 minutes after assignment notebook is checked.

3. Start on homework or study priority

Use of Technology to Organize the Student

The screenshot shows the Notability app interface on an iPad. The top status bar displays 'iPad', signal strength, '9:35 AM', and '100%' battery. The app title is 'Unfiled Notes'. The left sidebar shows a hierarchical list of notes:

- All Notes: 202
- Unfiled Notes: 7
- Homeroom: 1
- Social studies: 1
- Read 180: 1
- AS: 1
- RA: 1
 - Music: 4
 - Health: 1
 - Drama: 8
- Science: 1
 - MCE: 25
 - Matter: 28
 - Space exploration: 20
- Math: 1
- ELA: 1

The main view shows a list of notes with columns for Name, Modified Date, and Created Date:

Name	Modified Date	Created Date
Artist_Research_2015	Modified Mar 16, 2015, 12:58 PM	
Expository_Body_Paragraph_Organizer	Modified Mar 4, 2015, 9:00 AM	
Health_Syllabus_14-15	Modified Apr 14, 2015, 1:23 PM	
March_Fitness_Funatics	Modified Apr 14, 2015, 11:55 AM	
Note Apr 13, 2015 (2)	Modified Apr 13, 2015, 1:19 PM	
Note Feb 9, 2015	Modified Apr 2, 2015, 9:59 PM	
Visual_Portfolio_6th_grade	Modified Apr 9, 2015, 1:13 PM	

Notability-

Where edited documents are stored

Tips for Parents



What to expect from 5-7 Year olds?

- Complete 2-3 step errands
- Tidy bedroom/playroom independently
- Initiate and perform simple chores and self-help tasks
 - may need reminders
- Bring papers to and from school

What to expect from 5-7 Year olds?

- Complete homework assignments
 - 20 minutes max
- Inhibit behaviors
 - follow safety rules
 - use appropriate language
 - keep hands to self
- Decide how to spend their money

What to expect from 8-11 year olds?

- Run errands, including those involving a time delay
 - remember to bring something from school without reminders
- Perform chores that take 10-30 minutes
- Bring books, papers, etc. to/from school
- Keep track of belongings when away from home

What to expect from 8-11 year olds?

- Complete the majority of homework assignments without assistance
 - 60 minutes max
- Plan simple school projects such as book reports
- Inhibit/self-regulate behaviors
 - inhibit temper tantrums

Modify Presentation of Information

- Organize and simplify directions
- Create bullet points to aid recall (break it down!)

Remember ___ before swimming you need to do 3 things.

- put dirty clothes in hamper
- bring hamper down to laundry room
- put toys back in toy bin..

Got it? 3 things on list? Do you remember what they are?

Please tell me so I am sure you've got them all."

- Simplify directions so most important info stands out. Remember Clothes – Laundry room – Toy Bin – GO!

Use Multisensory Strategies to Aid Recall

- Multisensory teaching is process of connecting new learning with input from eyes, ears, voice, and/or hands
- Sing directions
(chants, dance steps, fun!)
- Tap table for each step you need to do
- Make a picture list of things to get before Grandma and Grandpa get here



Teach Compensation Strategies for Working Memory Weaknesses

- Visualize technique
- Have child repeat directions 3-4 x in head to lock in information
- Have child read directions softly to self before / after completing assignments (reread all directions to make sure you have done what is expected)
- Mnemonic devices (treble clef: **Every Good Boy Deserve Fudge**)

Provide templates for Procedures/Routines

- Chore cards
- Task to do list with step broken down

Room Clean up:	Check Of When Done
Throw away trash	
Put DIRTY clothes in hamper	
Book on bookshelf	
Toys in toy bin	
Make bed	

Use Concrete External System to Take Burden off Internal Working Memory

- Laminate Picture/word schedules
- Laminate Picture/word to do list
- Pull, check off or cross off completed tasks
- Visual component illustrates competence to child and builds confidence
- Teach child to write down ORAL information
- Teach jotting down of keywords
- Use technology –record message on cell phone, send email reminder, voice mail, recorded school lessons

Provide *Reasonable* Supports for Working Memory Weaknesses

- Expect to repeat directions and do so in patient, sensitive manner
- For adolescents- ask how you can provide reminders/cues without bugging them.
- Be flexible and willing to try reasonable ways to help
- Prompt for good listening skills (I am going to give direction now. Please look at me so I know you are focusing)

Possible Accommodations Creating Back Up for Weak Memory

- Written copy of directions/assignment/
website
- Review and initial agenda book that
assignments have been written down and
correct
- Teach child important of knowing peers # in
case need to call to check on assignments

Accommodating Weak Working Memory

- OFFER Understanding and support when child experiences frustration or failure
 - It is hard to keep track of doing so many things at once. Would it help if I make a list so you can check off each step?
 - Sometimes hard to manage complicated directions. Let's read aloud together and take it one step at a time
 - We will practice together and then you will improve over time.

Strategies for Turning In Homework

- Walk through process with child
 - Figure out where break down is and consider what needs to be added to the routine

- Institute a routine:

Homework is not done until:

homework papers are completed

homework is put back in folder

homework is put back into your backpack

Your backpack is on the launching pad

Find out teacher system or add color coded system

Strategies for Turning In Homework

- Collaborate with your child's teacher(s) to find out what their classroom routine is so both school and home are working together
- if needed meet with teachers to figure out ways to build in reminders until desired pattern of behavior becomes a habit (ie: turn in homework as soon as entering the classroom)

Tips to Compensate for Organizational Weaknesses

- Use of agenda book for primary organizing tool for tracking assignments. Could also serve as a way to remind student to turn in assignment
- Enter reminder note into next day's assignment block for subject.
- When entering new homework, will see reminder note to turn in what is due
- Link already establish habit to one that your child needs help acquiring (place homework folder on top of lunch in fridge).

Tech Tips to Compensate for Organizational Weaknesses

- Use watch or mobile device that vibrates with reminder phrase at programmed time “turn in homework”. Must be clear device is only being used for this purpose.
- When child completes homework at home, can also email it to teacher on child’s own web-based email account. If paper is misplaced, then child can print out during free time (with teacher’s permission).

We Have Probably Talked Too Long

ANY QUESTIONS??



CHECK OUT THE HANDOUTS FOR MORE INFO

Thank you...



References

Info adapted from Article: Late Lost and Unprepared by Joyce Cooper-Kahn, PhD and Laurie Dietzel, PhD

TWU presentation:

Executive Functions from Assessment to Intervention by: Erin K. Avirett and Jordana E. Mortimer

NASP website

CRC Meeting on EF: Mindset: Carol Dweck

Mindsets in the Classroom by Mary Cay Ricci