



National
Resource
Center
on ADHD
A Program of CHADD



www.CHADD.org/NRC
(800)233-4050
Help4ADHD@CHADD.org

Ask the Expert



ADHD & Executive Functioning

What is it?

What does it look like?

What can we do about it?

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**National
Resource
Center
on ADHD**
A Program of CHADD

A partnership between CHADD and the Centers for Disease Control and Prevention

Visit us at:

CHADD.org/NRC

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Slides →

Resources	
Name	Size
Webinar Handouts	711 KB

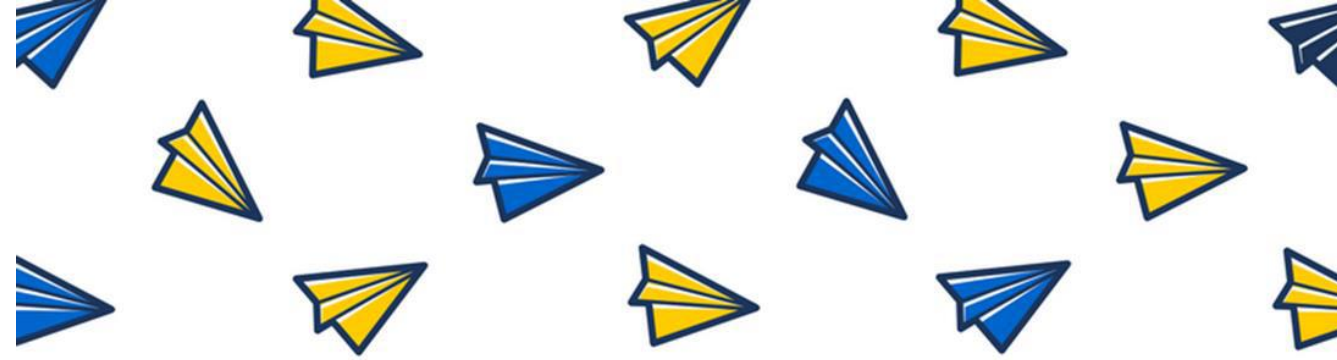
Upload File... Download File(s)

Ask a question →

Q & A

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Do you know someone in need of
ADHD Information and Resources?

Refer them to our ADHD Helpline



1-800-233-4050,
Mon-Fri, 1-5pm ET



What is it?

Executive Functioning

- ❑ the brain's CEO
- ❑ orchestrates resources such as memory, language, and attention to achieve a goal
- ❑ it is the "*Conductor of the Orchestra*"

Deficits in Executive Functioning

- Deficits in Executive Functioning (EF) undermine the child's ability to use *internal* control to regulate behavior.
- Therefore, the behavior of children with ADHD is more *externally* controlled than children without ADHD.
- Children with AD/HD are strongly influenced by the:
 - Conditions of the immediate environment
 - Availability of immediate rewards



Executive Functioning difficulties affect...

- Communication
- Pragmatics & Social Interaction
- Processing & Reasoning
- Problem Solving & Learning
- Memory

Communication difficulties...

- Disorganized conversation
- Unrelated thought patterns
- Difficulty understanding the main idea
- Reduced ability to use self-talk
- Inattentive and impulsive listening
- Lack of initiation

Pragmatics & Social Interaction

Difficulty with...

- ❑ the ability to take others' perspective
- ❑ transitioning
- ❑ ability to understand nonverbal cues
- ❑ judgment of situations (inappropriate, impulsive, and dangerous)

Processing & Reasoning

Difficulty with...

- abstract reasoning
- recognizing relevant vs. irrelevant information
- drawing conclusions and making inferences
- thinking differently
- predicting consequences or outcomes

Problem Solving & Learning

Difficulty with...

- strategic thinking
- ability generate multiple solutions
- generalizing to other concepts
- learning from consequences
- carrying out instructions or tasks to completion
- recognizing failure or the need to choose other strategies

Memory

Difficulty with...

- ❑ retaining information long enough to complete steps
- ❑ accomplish tasks and being on time
- ❑ recalling information (out of sequential order, including verbal directions)
- ❑ integrating long-term memories of past experience into future decisions

What does it look like in school?

Deficits in....

- working memory and recall (including memorizing words, multiplication tables, facts)
- activation, alertness and effort
- analyzing, problem solving, organizing and planning (math word problems and writing essays)
- controlling emotions
- organization
- shifting and inhibiting attention

Difficulties in Reading...

- Planning, recalling, and using decoding strategies
- Reading words fluently
- Understanding and using information read in a sentence, passage, or longer article
- Making inferences or using strategies for reading comprehension

Written Language Difficulties...

- Motor control
- Planning how written information will fit on a page
- Writing automatically
- Organizing content in written material
- Retrieving and using ideas when writing
- Holding and manipulating thoughts, retrieving ideas, and executing written material

Math difficulties...

- Monitoring progress and self-correction when doing calculation
- Maintaining an idea, organizing a strategy, and retrieving steps accurately when calculating
- Organizing, storing information, retrieving information, and executing steps when learning and applying memorized information, such as addition facts

Study Skills difficulties...

- Organizing desk, backpack
- Completing homework
- Reading a text and gleaning needed information
- Listening and gleaning needed information
- Turning completed homework in on time
- Interpreting assignments correctly
- Using study strategies in the classroom

Role of the Classroom Teacher Regarding Students with ADHD

Know and understand what ADHD is.

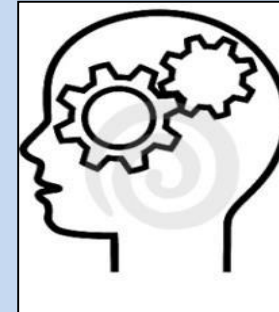
- Describe classroom behaviors that are limiting a student's access to the general curriculum.
- Employ behavioral interventions and educational techniques to best meet the student's needs.



Rethinking ADHD...

...From a Cognitive Perspective

- **Executive functions** refer to a set of cognitive processes that enable us to:
 - Get started – make and carry out plans
 - Direct our attention
 - Focus
 - Organize school possessions and academic material
 - Manipulate information in our heads
 - Be able to switch from one task to another
 - Control our impulses and emotions



1. Regulating Actions



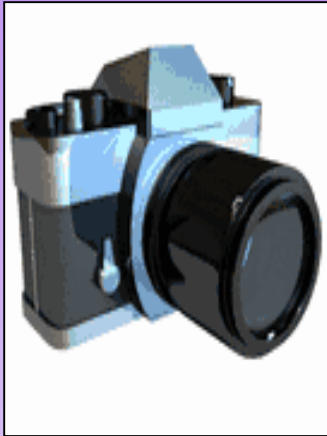
Managing and regulating one's actions by inhibiting *impulsive behaviors*

Indicators of Weak EF Skills

- *Jumps to conclusions*
- *Says things without thinking*
- *Unaware of the impact of his behavior on others*
- *Begins worksheet without reading instructions*
- *Believes work is good despite evidence to the contrary*



2. Focusing, Shifting Attention to Tasks



Tuning in, resisting distractions, sustaining focus, shifting attention when appropriate

Indicators of Weak EF Skills

- *Loses track of activities*
- *Easily distracted by environment*
- *Difficulty shifting attention when school subject changes*
- *Poor reading comprehension*



3. Getting Started



Organizing, prioritizing and starting work tasks

Indicators of Weak E F Skills

Difficulty:

- *Initiating work tasks*
- *Generating ideas and beginning work*
- *Finding the main idea*
- *Starting work requiring mental effort*
- *Organizing verbal output and often changing topics mid-sentence*



4. Accessing Working Memory and Recall



Holding information in mind for the purpose of completing a task

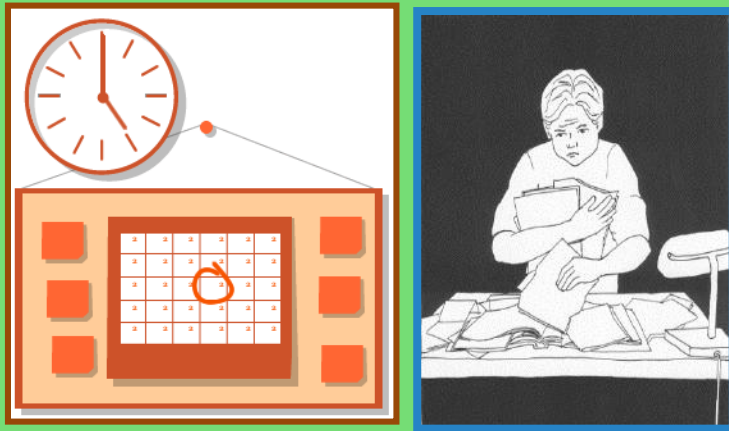
Indicators of Weak E F Skills

Difficulty:

- *Remembering and following verbal directions*
- *Retrieving information from memory when taking tests*
- *Retaining Information in the brain to complete complex math problems or lengthy writing assignments*
- *Recalling what was read to be able to summarize.*



5. Organizing and Planning Schoolwork & Life



Organizing schoolwork and personal space

Planning and executing schoolwork and planning for the future

Indicators of Weak EF Skills

Difficulty:

- *Organizing possessions and materials*
- *Knowing, understanding, organizing and turning in school assignments*
- *Managing or pacing time*
- *Sequencing a complex task*
- *Analyzing and problem solving*



6. Self-Monitoring



Monitoring one's own performance and measuring it against some standard of what is needed or expected

Indicators of Weak EF Skills

Difficulty:

- *Reviewing school work to check for errors*
- *Understanding that the rough draft is not the final draft*
- *Persisting or following through on a task because it requires so much effort*
- *Failing to adjust behavior based on feedback.*



7. Controlling Emotions



Managing frustration and regulating emotions

(Not in DSM-5 Criteria)

Indicators of Weak EF Skills

Difficulty:

- *Poor control of emotions*
- *Low threshold for frustration*
- *May lash out when frustrated by peers*
- *Emotionally over-reacts to difficult situations*
- *Gives up easily and has excessive worry*



Executive Functions



Regulating Actions

Focusing, Shifting

Getting Started

Working Memory and Recall

Organizing Work & Materials/Planning

Self-Monitoring

Controlling Emotions

The 4 FOUNDATIONAL PRINCIPLES

for every **Lesson**, **Activity** and **Interaction**

- **Brevity**
- **Clarity**
- **Variety**
- **Structure**



Technique #1: Meet and Greet

- Be at the classroom door as class begins
- Say “hello” with a high five, handshake, or fist bump
- Make a personal connection through a comment or question





Technique #2: Agendas/ Checklists

- ◇ Instructions
- ◇ Assignments
- ◇ Lists of Events



component:
PRIORITIZATION!

Sample Agenda for a Math Lesson:

Bell activity: “Meet Someone New”

—Go mingle! 😊

Correct HW pg. 53, odds

Lesson on dividing integers

Work on HW: Blue “Let’s Divide” page

—Due Thursday, 10/14

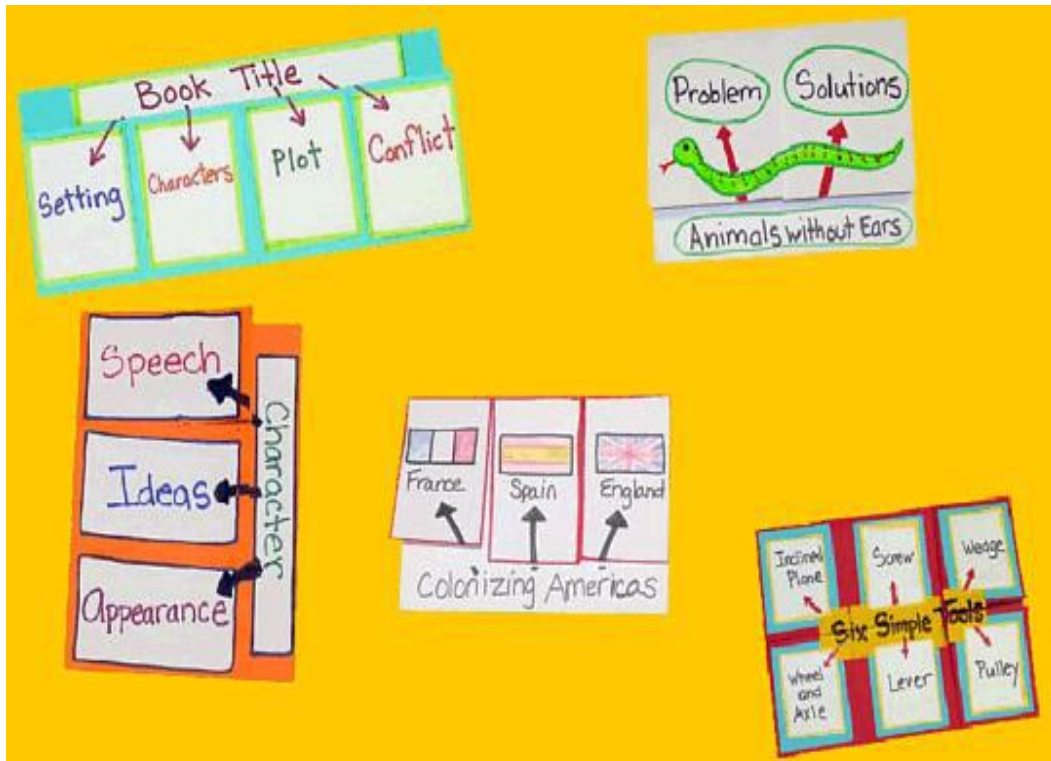
Calculation game (if time)

I'm finished, what should I do?

1. Read
2. Think
3. Draw
4. Finish other assignments
5. Work on the computer
6. Write
7. Straighten desk
8. Practice flash cards
9. Practice cursive
10. Pass back corrected work



Technique #3: Foldables and Graphic Organizers

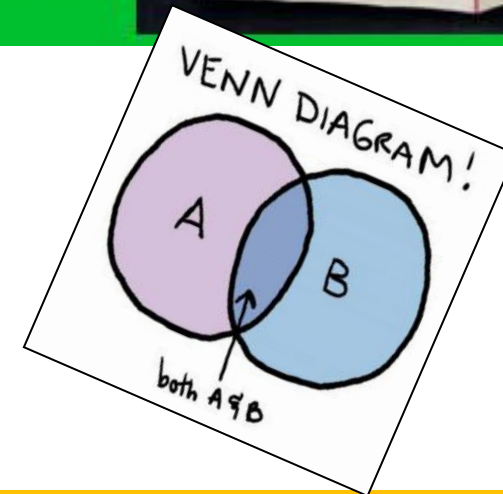


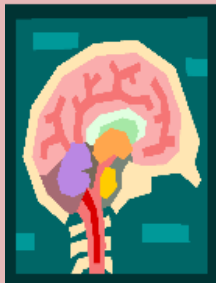
CHART

TABLE

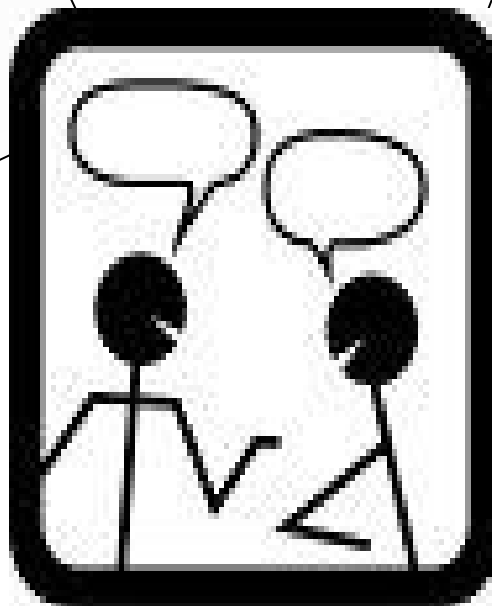
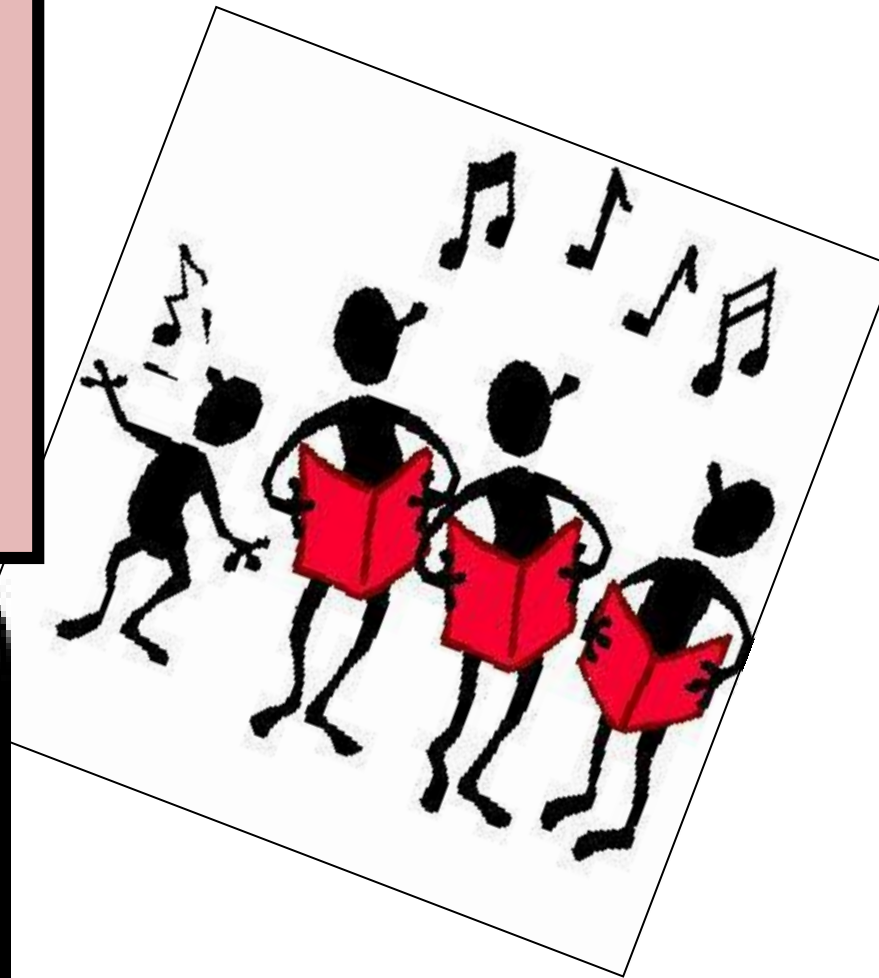
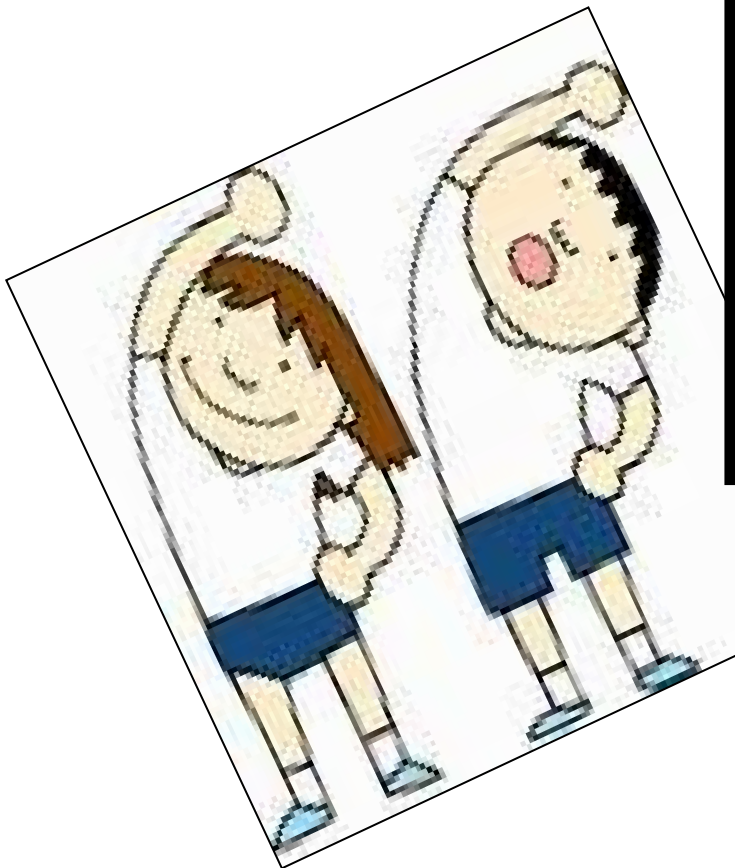
Tables are organized along vertical and horizontal axes, while charts are organized along one axis, either horizontal or vertical.

Use the folds in the chart or table as guides to draw easy, straight vertical and horizontal lines.







































Technique #4:
**Brain
Breaks**



Can You SAY it and MOVE it?

	Right	Left	Up	Down		
						
SAY IT!						
MOVE IT!						
SAY Opposite and MOVE it!						
SAY it and MOVE Opposite!						
SAY it and MOVE it!						



Technique #5:

Think-Pair-Share®

Step 1: Think for **32 seconds** of the 5 teaching techniques that have been presented. Choose one technique that might help build a missing executive skill in your “selected student.”



Step 2: Pair with your neighbor for **50 seconds**. Discuss some simple steps that you can take to implement this technique in your classroom.




Step 3: Share this information as a class for **66 seconds**.

Technique #6: Timers

- **Time Timer** (www.timetimer.com)



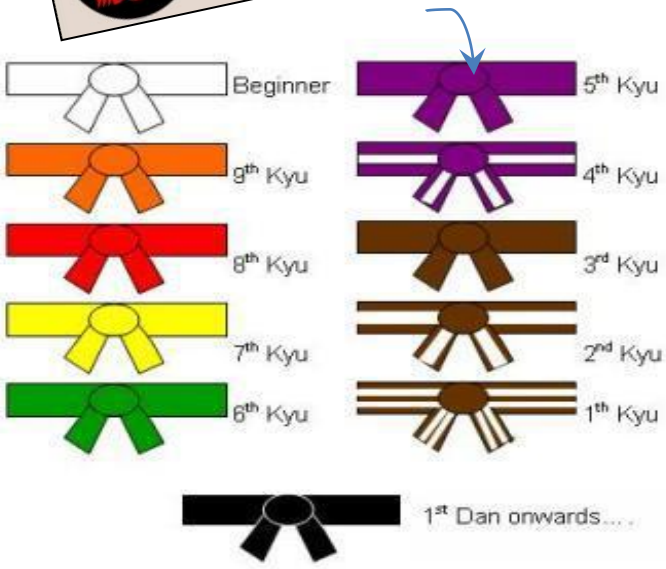
(iPad version .99-2.99 on iTunes) 
one FREE pre-installed as well on the clock app

- Jeff Ertzberger's Power Point Timer
http://people.uncw.edu/ertzbergerj/ppt_timers.html
- Play music during a break—when the song ends, students know learning will resume.





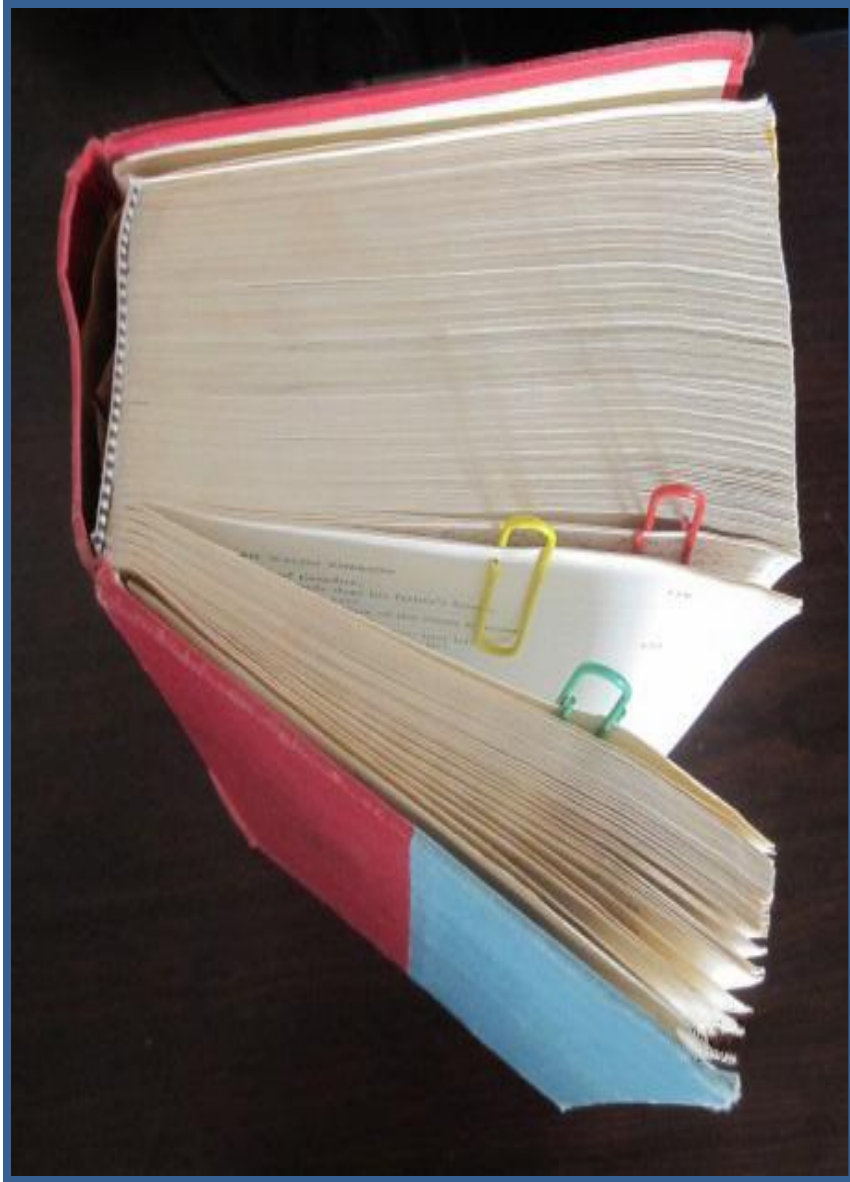
See-through Highlighter Tape



Color Code Classroom Information



Technique #7: COLOR



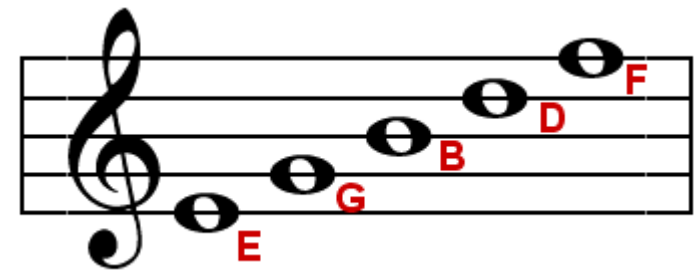
Technique #8: Read to the Clip

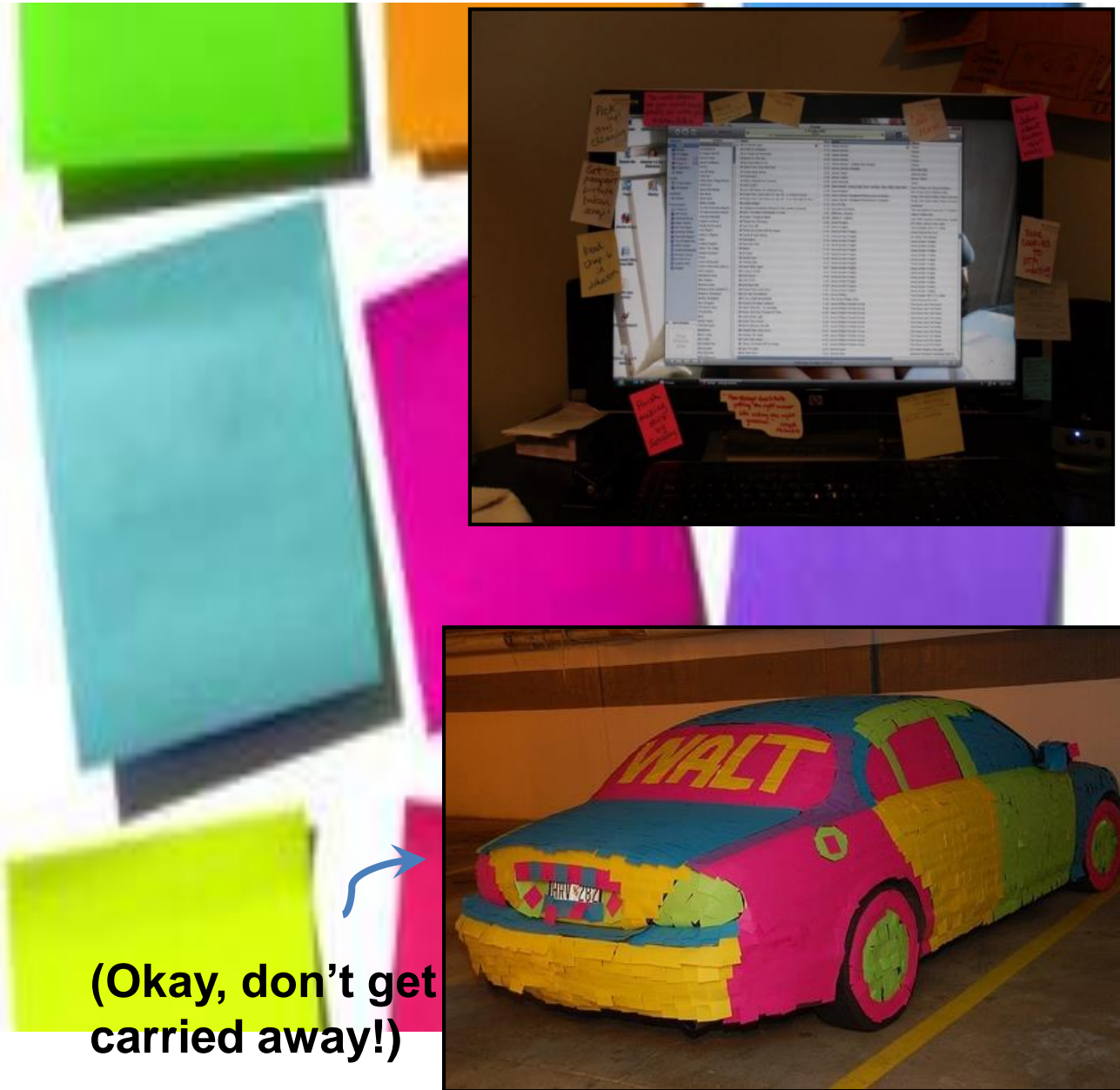


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Technique #9: Mnemonics

- “Thirty days hath September...”
- **H-O-M-E-S** (the Great Lakes are **H**uron, **O**ntario, **M**ichigan, **E**rie, and **S**uperior)
- “Every Good Boy Does Fine”
for the notes on the lines of
the treble clef
- 1-800-CAT-HELP for 1-800-228-4357





Technique #10:
Post-it
Notes®

(Okay, don't get carried away!)



Resources for Teaching Students with ADHD

- ***CHADD Educator's Manual on ADHD: An In-Depth Look from an Educational Perspective.*** This is "the" manual for managing students with ADHD available at the online store of National CHADD at www.chadd.org
- ***Teaching Teens with ADD/AD/HD*** by Chris Zeigler Dendy

Resources for Teaching Students with ADHD (cont'd.)

United States Department of Education web site:

<http://www2.ed.gov/rschstat/research/pubs/adhd/adhd-teaching-2008.pdf>

Downloadable Booklet titled “**Teaching Children with Attention-Deficit Hyperactivity Disorder: Instructional Strategies and Practices**”

Foldables websites: wrhs.pasco.k12.fl.us; wik.ed.uiuc.edu; www.dinah.com

21st Century Resources: <http://learningworksforkids.com/apps>

Misunderstood Minds:

<http://www.pbs.org/wgbh/misunderstoodminds/attention.html> Understood.org

Executive Skills in Children and Adolescents, Peg Dawson and Richard Guare

National Center for Learning Disabilities

Center for the Developing Child, Harvard



Thank
you!

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