



Strategies to Support Students in Developing Executive Functioning Skills

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Carolyn & Kristin
(and Mike!)

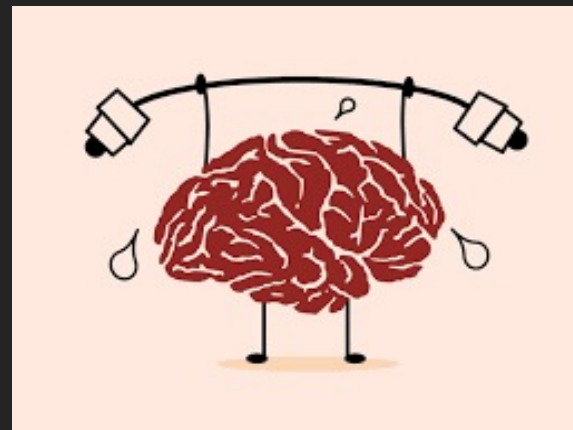
Woodlynde School

- Founded in 1976
- Kindergarten – Postgraduate
- College Prep
- Language & math-based LD
 - Executive Function Skills
 - ADHD
 - Auditory Processing





What does a lack of
executive function skills
look like in the **classroom**
and in **daily life**?



What the EF?

What are Executive Functions?

"A neuropsychological concept referring to the cognitive process required to **plan and direct activities**, including **task initiation** and **follow-through**, **working memory**, **sustained attention**, **performance monitoring**, **inhibition of impulses**, and **goal-directed persistence**."

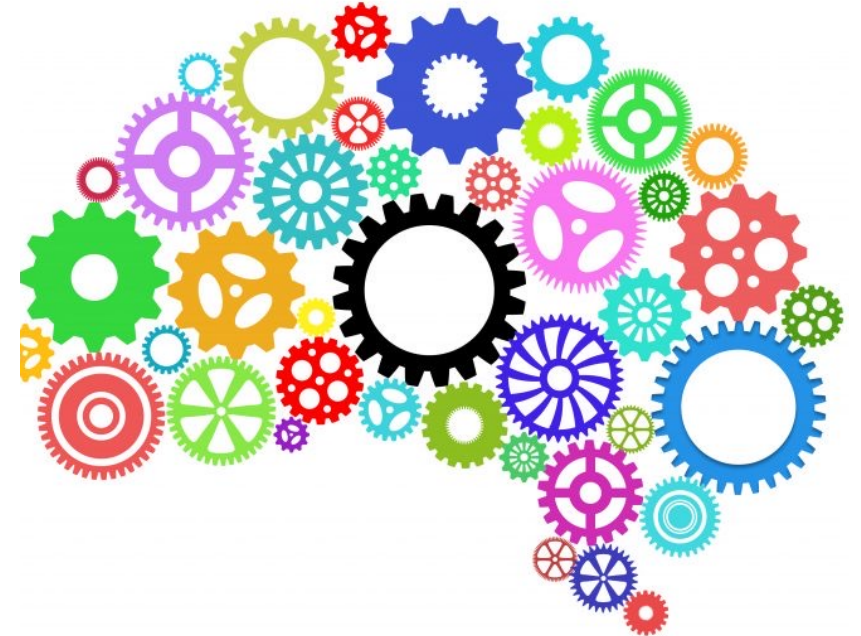


Image courtesy of Bronxville Public Library

What are Executive Functions?

A neuro
referring to
required to p
including tas
through, work
attention, per
inhibition of
directed

ORGANIZATION:
Losing papers, not saving
documents in the right
place, not looking
physically presentable,
forgetting your sports
uniform, disorganized
binder, desk, locker



Image courtesy of Bronxville Public Library

What are Executive Functions?

A neuro...
referring to...
required to p...
including tas...
through, wor...
attention, p...
inhibition
direc...

TIME MANAGEMENT:
Starts at the last minute,
doesn't anticipate
roadblocks, length of
time assignments should
take, arriving places on
time, setting alarms,
long/short term planning



Image courtesy of Bronxville Public Library

What are Executive Functions?

A neurocognitive process referring to the skills required to plan, organize, and execute tasks, including tasks such as through, working memory, attention, problem-solving, inhibition, and direction.

SELF-MONITORING:
Having control of your actions, knowing how well or not well you are doing in your classes, doesn't proofread or implement study strategies



Image courtesy of Bronxville Public Library

What are Executive Functions?

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What are Executive Functions?

A neurocognitive process referring to the mental skills required to plan, organize, and execute tasks, including task initiation, working memory, attention, problem-solving, inhibition, and direction.

TASK INITIATION:
"Just sitting there",
overwhelmed by large
tasks or tasks with
multiple steps, not sure
how to get started



Image courtesy of Bronxville Public Library

What are **Executive Functions**?

A neuro...
referring to...
required to p...
including tas...
through, wor...
attention, p...
inhibition
direc...

SHIFT/FLEXIBILITY:
Difficulty stopping or
shifting behavior, getting
'stuck', social skills
difficulty, overreacting,
need to do only 1 task at
a time, refusal to
consider new information

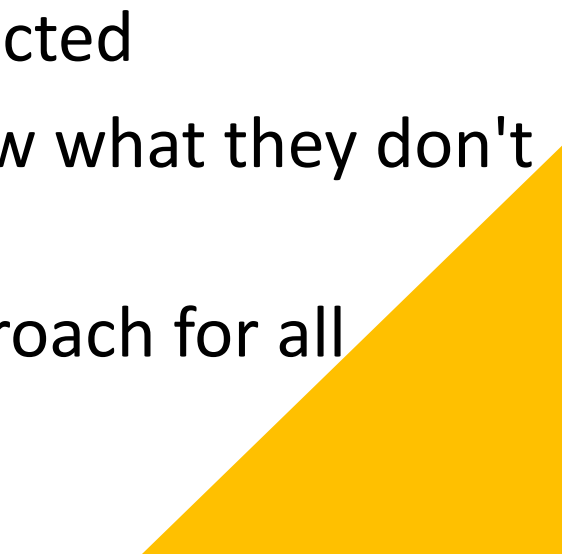


Image courtesy of Bronxville Public Library

What
strategies
can we
put into
place?



Food For Thought t

- "Can't you just try harder?"
 - Not synonymous with intelligence
 - Rethink tests!
 - One subject versus another
 - Relationships are affected
 - They often don't know what they don't know
 - No cookie cutter approach for all students
 - Anxiety, ADHD
- 
- A large yellow triangle is positioned in the bottom right corner of the slide, pointing towards the top right.

"Those with ADHD are generally about 30 to 40 percent behind their peers in transitioning from one executive function to the next. Therefore, it makes sense for children and adults with ADHD to have trouble dealing with age-appropriate situations — they're thinking and acting in ways that are like much younger people."



Always,
Always,
Always...

Safe environment

Structure

Direct Instruction

Model & reteach

Consistency



Partnership with Parents

- Working towards the same goal
 - Who is the expert?
 - Learning from mistakes
 - Accountability
 - Share strategies

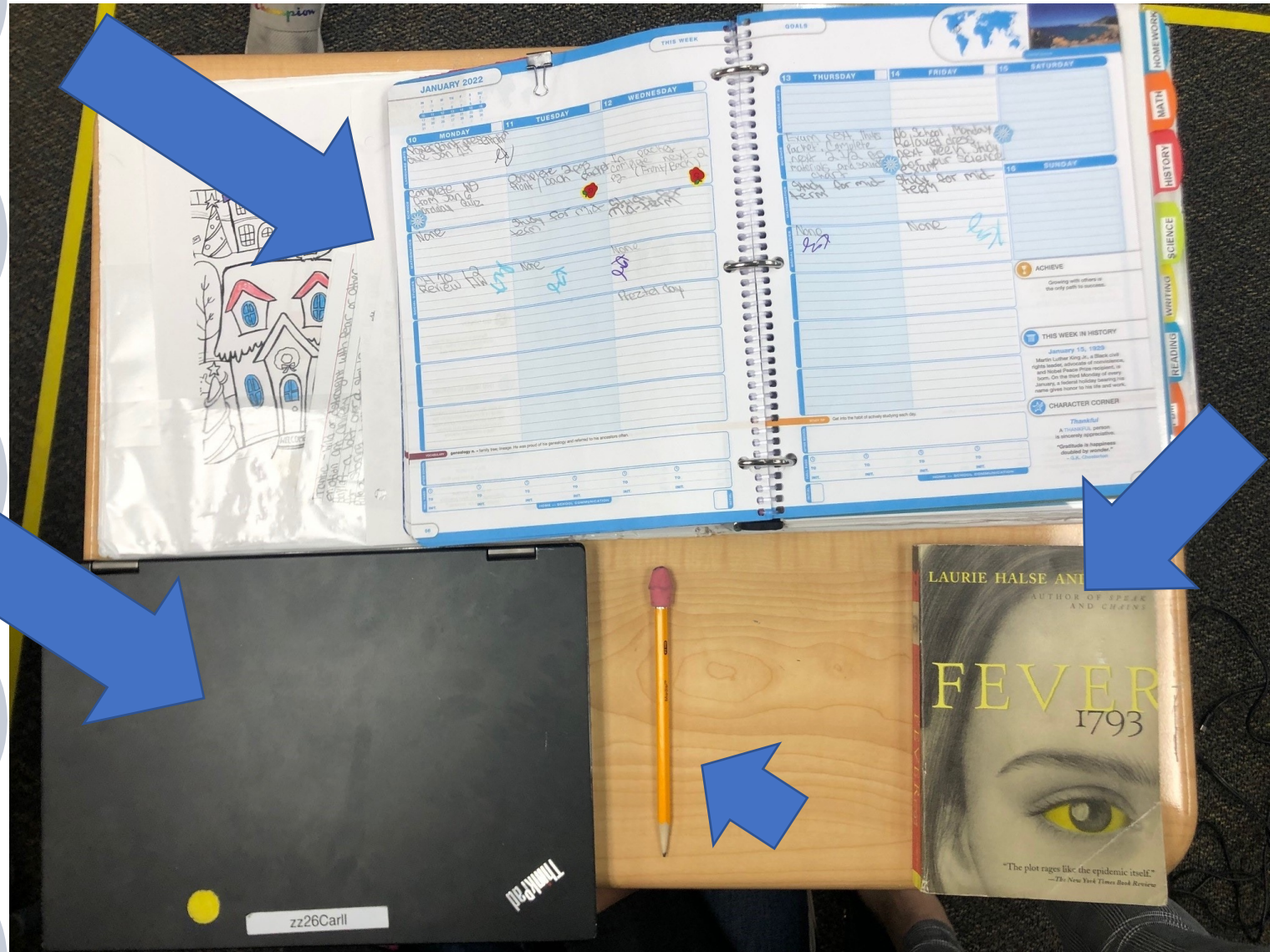
Organization

- Individual learning styles
- One set of directions
- Visual aids and modeling
- Verbal & nonverbal prompts & reminders
- Direction instruction



"Here is an image of what your desk should look like.

Can you 'match' it with your own materials?"



Time Management



- Make time visual
- Provide overview of the entire task
- Model
 - Chunking assignments
 - Writing it down in a calendar
 - Setting alarms
 - Calculating time versus estimating it
 - Planning for & taking breaks
- Be as specific as possible

Steps to Long-Term Planning

1. Break the assignment into a specific task.
2. Estimate the time needed for each task.
3. Double the estimated time needed for each task.
4. Record target dates on a calendar for each task.
5. Begin immediately.



"How much time did you calculate this would take?"

"I would like you take 10 minutes to complete this warmup activity."

"Look at how much time is left & how much of your assignment is left. Let's use this to adjust your pace."



"Let's plan your
schedule after
school..."

"I love that you
blocked off an
hour for your
English essay."

Daily Homework Planner

Date: 1/12/2022

Schedule

3:30	Snack
4:00	Finish conclusion of English Essay
4:30	
5:00	
5:30	Tennis Lessons
6:00	↓
6:30	
7:00	
7:30	Dinner
8:00	
8:30	Review Spanish
9:00	verbs + vocab for test
9:30	
10:00	Go to sleep!

To Do:

- ☐ Email math teacher
- ☐ Remember tennis racket
- ☐ Sleep by 10pm!
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

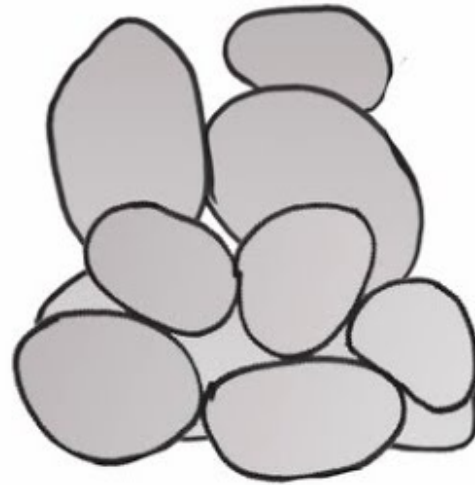
Prioritizing Your Life: **Rocks, Pebbles and Sand**



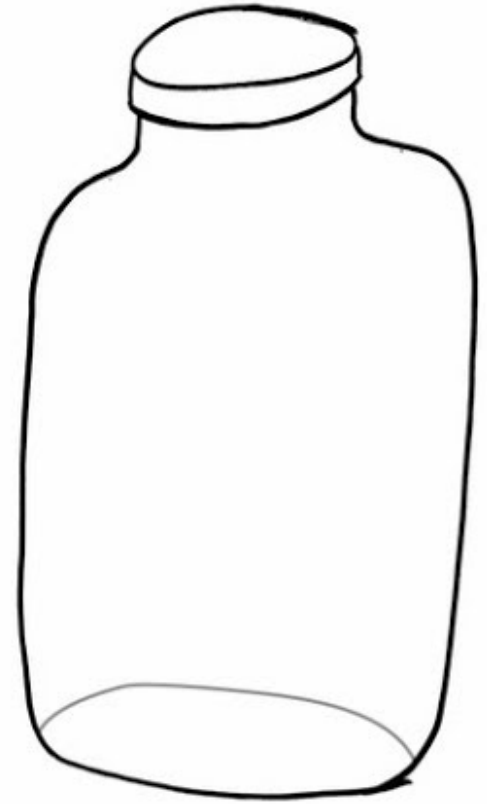
Sand



Pebbles



Rocks



Jar

Self-Monitoring



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- Growth Mindset
- Metacognitive questioning
- External reminders
- Accountability

Memory Check Chart

Question	Answer	Immediately Knew the Answer	Needed to Do a Memory Search	I Do Not Know
What is mitosis?				
Where is the nucleus located?				

"Let's think about what time management and organizational strategies we might already be using or what we might not be using."

Becoming a Time Manager and a Goal Setter

ANSWER, SCORE, and RECORD your profile before you read this chapter. If you need to review the process, refer to the complete directions given in the profile for Chapter 1 on page 4.

ONLINE: You can complete the profile and get your score online at this textbook's CourseMate Web site.

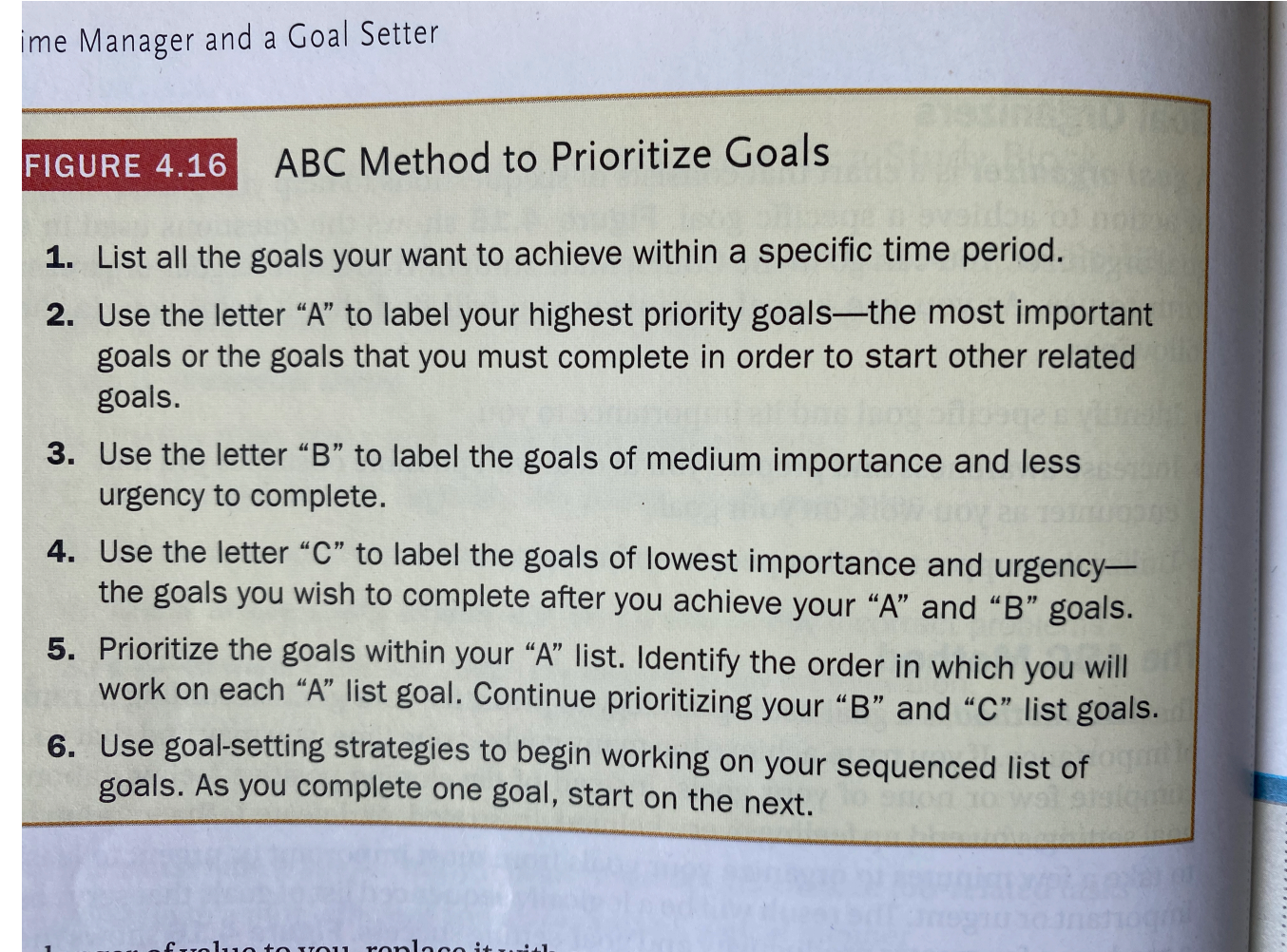


Access Chapter 4 Profile in your College Success CourseMate, accessed through CengageBrain.com.

	YES	NO
1. I use strategies to create a comfortable balance in my school, work, and leisure life.	_____	_____
2. I use a weekly schedule to organize my studying, work, and leisure time.	_____	_____
3. I try to make each scheduled day different so I do not get bored.	_____	_____
4. I often study for three hours or more in a row so I can stay current with my reading and homework assignments.	_____	_____
5. I usually study two hours during the week for every one hour in class.	_____	_____
6. I use a systematic four-step process for planning and setting goals.	_____	_____
7. I tend to have difficulty completing term-long projects on time.	_____	_____
8. I use task schedules to organize my short-term and study-block goals.	_____	_____
9. When faced with a list of short-term goals, I work to complete high-priority goals before working on goals with lower levels of importance.	_____	_____
10. I am confident that I have the skills necessary to manage my time effectively and to stay motivated to complete goals that I set.	_____	_____

Wong (2012). *Essential Study Skills*.

Goal-Directed Persistence



Wong (2012). *Essential Study Skills*.





Task Initiation

- Chores or classroom jobs
- Visual cues or examples of the finished product
- Make a plan
- Chunk larger tasks
- Check-ins

"Let's work backwards from the example. Let's make a list of the steps to get to the final product."

CHECKLIST

- ☒ Underline the title
- ☒ Write 5 paragraphs
- ☒ Indent the first line of each paragraph
- ☒ Include a picture
- ☒ Hand it in to your teacher
- ☒
- ☒
- ☒

The Universe

The universe is a stunning place to behold, and it is big enough to contain 10 trillion planetary systems like the one earth is part of! The universe is all of space, including all the matter, energy, and it. It is so big and there is so much in it. For example, you can see all the planets, different stars or systems, galaxies, black holes, and many other things that are still undiscovered. The universe is around for almost 14 billion years, and it is constantly expanding. The universe is a fascinating place with solar systems, galaxies, planets, and so much more, and we are always learning new things about it.

The Big Bang happened 14 billion years ago. It was a Giant explosion where everything was born. The universe grew very quickly from the size of an atom to bigger than a galaxy in a fraction of a second. No one knows the true size of the universe because it is still expanding. As the universe expands, galaxies are always moving away from each other. Scientists believe that the universe may be flat to today's enormity. The universe is extremely hot, but scientists think the universe is cooling, and might freeze eventually.

Stars are balls of gas that are superhot. They are made of helium and hydrogen that have been fused together by gravity. Our sun is a star that is young and small. Normal stars are Red (small), Yellow (medium), and Blue (large). The larger stars are hotter. Dwarf stars are very small stars. Red stars are dwarfs because they are smaller stars. Most stars are red dwarfs the smaller stars live longer. Giants are Blue (normal stars) and Red (expanding star). Giant stars usually die faster. Famous stars are Proxima Centauri, the closest star to earth (other than the sun) and Betelgeuse (one of the largest and brightest stars) and Sirius which is the brightest other than the sun. A star's lifecycle You can determine a star's age by its color and size. It starts as a nebula, a cloud of particles. Gravity pulls all of the dust together and it gets hotter to form the star. It burns for billions of years until there is no more hydrogen. It gets bigger and is called a red giant. It collapses and either becomes a white dwarf or a black hole.

Black holes are where gravity is so strong that it sucks in everything around it. Nothing can escape, not even light. We cannot see them because they do not reflect light. Weird things happen around them, like distortion of time and appearances. They are formed by exploding stars, called a supernova, that become very tiny and dense. They become bigger by sucking in other things. The event horizon is the "point of no return" where once you are this close, you cannot escape the black hole.

I chose this topic because space is remarkably interesting. The universe began an exceptionally long time ago with the Big Bang and is expanding. There is so much in the universe, like the galaxies, stars, and black holes. We have barely even scratched the surface of what there is in space, and there is so much more to learn.



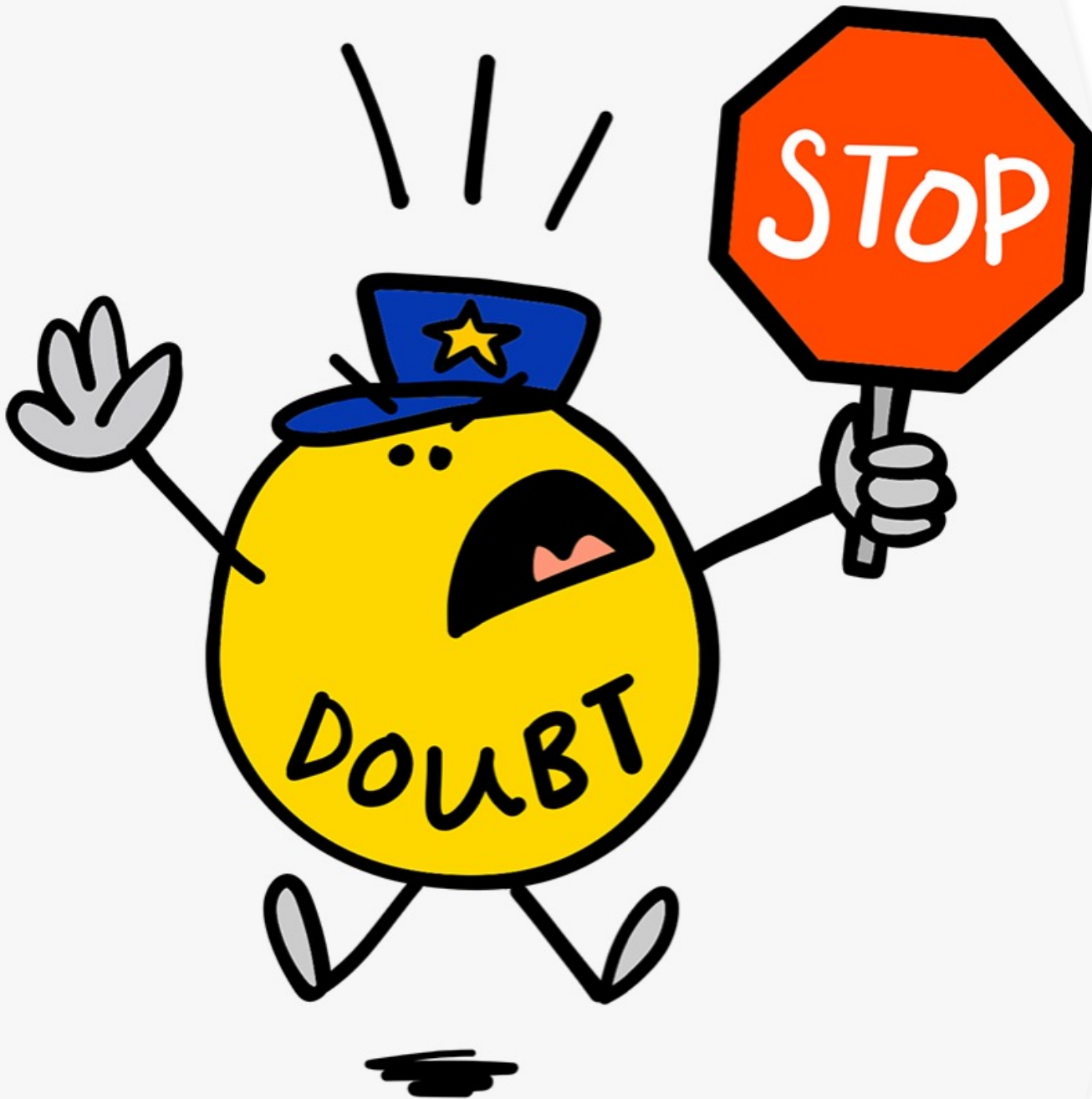
SHIFT & FLEXIBILITY

- Providing limited and very specific options
- Modeling, teaching and encouraging "flexible" problem-solving skills through routines
- Provide advance warning of shifts in schedules
- Awareness of antecedent conditions



"Dear Students,
Mr. Platt, our gym
teacher, is out
today. Instead of
gym, we will go to
the playground..."



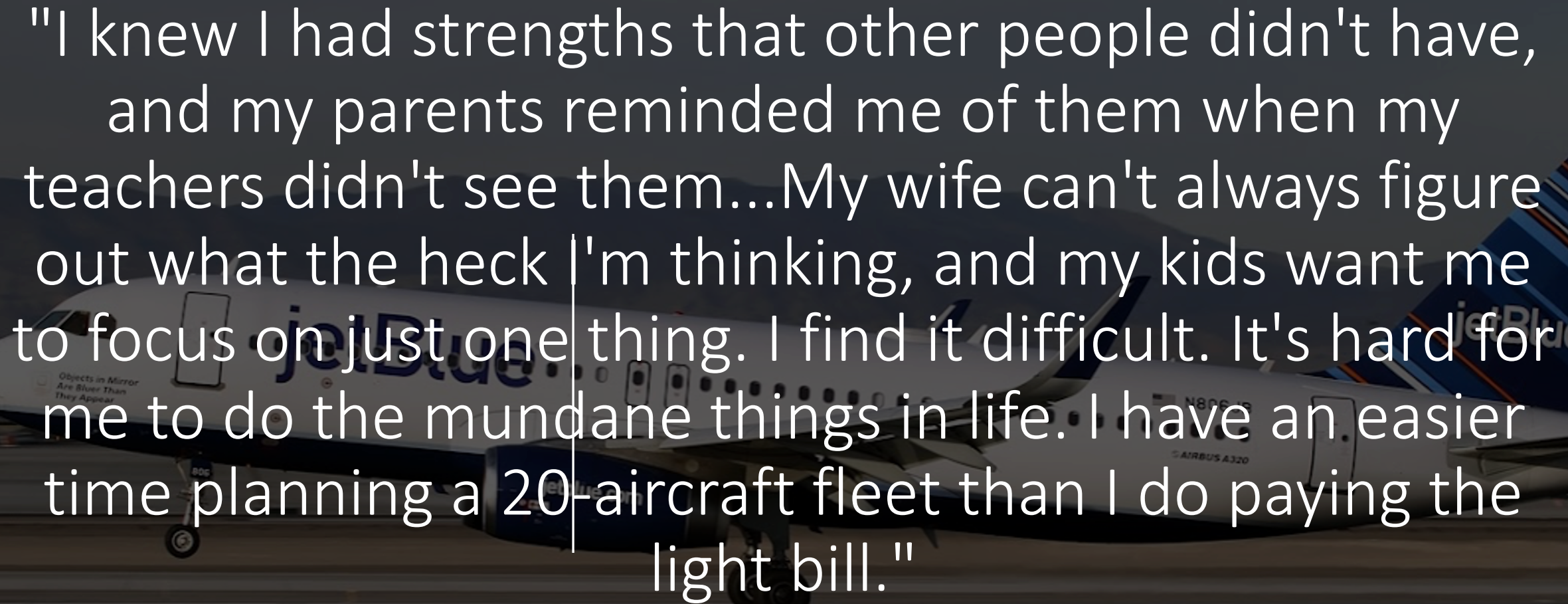


When In Doubt...

- Growth mindset
- Learning styles & needs
- See the big picture
- Honor the critical thinker
- Explicit direct instruction
- Achievable goals
- Timely and specific feedback
- Celebrate the smallest win

CELEBRATE THE SMALLEST WIN!

- "Thank you for having your strategic planner out on your desk, ready to write your homework down."
- "I heard you ask your teacher for clarification on your homework assignment."
- "I saw you saved your document in the right folder. Wasn't it easy to find when you needed it for homework?"
- "I noticed you took the time to put your math homework in the math section of your binder."
- "I am proud of you for choosing from the two options of what to do when you finished your test."

A JetBlue Airbus A320 aircraft is shown on a runway at night. The aircraft is white with blue and orange accents. The text of a quote is overlaid on the image in a white, sans-serif font. The quote is: "I knew I had strengths that other people didn't have, and my parents reminded me of them when my teachers didn't see them...My wife can't always figure out what the heck I'm thinking, and my kids want me to focus on just one thing. I find it difficult. It's hard for me to do the mundane things in life. I have an easier time planning a 20-aircraft fleet than I do paying the light bill." The aircraft's tail fin is visible on the right, and the front of the plane is on the left. The runway is dark, and the background is a dark sky.

"I knew I had strengths that other people didn't have, and my parents reminded me of them when my teachers didn't see them...My wife can't always figure out what the heck I'm thinking, and my kids want me to focus on just one thing. I find it difficult. It's hard for me to do the mundane things in life. I have an easier time planning a 20-aircraft fleet than I do paying the light bill."

-David Neeleman
Founder, JetBlue Airways



TABB Reflection

T: the most valuable **thing** you are taking from this session

A: **Action(s)** you'll be taking because of this session

B: **Barrier(s)** you may need to overcome

B: **Benefit(s)** you'll accrue from overcoming barriers

Sources and Resources

- Barkley, R. (2021, December 13). *What is executive function? 7 deficits tied to ADHD*. Additude. <https://www.additudemag.com/7-executive-function-deficits-linked-to-adhd/>.
- Dawson, Peg, & Guare, Richard (2004). *Executive Skills in Children and Adolescents*.
- Dawson, P. & Guare, R. (2009). *Smart But Scattered*.
- Harvard University Center on the Developing Child. (n.d.). *What is executive function? And how does it relate to child development?* <https://developingchild.harvard.edu/resources/what-is-executive-function-and-how-does-it-relate-to-child-development/>
- Ward, S. & Jacobsen, K. (2014). A clinical model for developing executive function skills. *Perspectives on Language Learning and Education*, 21(2), 72-84.
- Wong (2012). *Essential Study Skills*.