ACADEMIC AND BEHAVIORAL STRATEGIES FOR THE INCLUSIVE GENERAL EDUCATION TEACHER

by

Jordan Sparks

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STATEMENT OF COMMITTEE APPROVAL

Dr. Jane Leatherman, Chair
School of Education

Dr. Jeong-IL Cho
School of Education

Dr. Rama Cousik
School of Education

Approved by:
Dr. Jane Leatherman

To my students; past, present, and future. This was for you.

ACKNOWLEDGMENTS

I would like to acknowledge the great efforts and patience of my professor, Dr. Leatherman. I am a better educator because of you. Dr. Cho and Dr. Cousik's guidance on this project has been invaluable as well. Without the direction of these professors, this thesis would not have been possible.

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ABSTRACT

Within the American public education system, 13 percent of students receive special education services. Interventions provided to students with disabilities declared mild to moderate participate within the general education classroom every day. The purpose of this study was to investigate what knowledge general education teachers have of the characteristics of the disabilities that were present within their classrooms, strategies they used within the classroom to support these students, and what teachers could do additionally to support students with disabilities in the general education classroom. Teachers were generally aware of common characteristics of disabilities, but some fell victim to common misconceptions. Teachers attempted a variety of strategies to support their students within the general education classroom. A consensus of requiring more resources and support in the classroom was relayed from general education students when inquired for next steps.

CHAPTER 1
INTRODUCTION

Statement of the problem

For the millions of students that are provided special education services within the public education system every day, they must be educated within their least restrictive environment, as mandated by the Individuals with Disabilities Education Act of 1975. This environment is determined by what setting is the most appropriate for the student (Stone, 2019). Through this Act, access to the general education curriculum is defined by location. Students with disabilities are integrated into the general education classroom for maximum extent appropriate for the student to still be successful. Teachers in the general education classroom provide a variety of strategies to meet the needs of their students with disabilities that are integrated within their classrooms. However, there is a more recent understanding of academic access that uses student academic achievement as the driving factor. In turn, "students are considered to have access to a curriculum only if they are making progress in that curriculum" (Fuchs et. al., 2015). This shift in focus puts a spotlight on the performance of students with disabilities, and the strategies that general education teachers are using to help them achieve.

Significance of the problem

Within the American public education system, 13 percent of students receive special education services. Interventions provided to students with disabilities declared mild to moderate participate within the general education classroom every day. Whereas in earlier years, students receiving special education services were secluded for those services, schools now participate in inclusive learning environments. This shift in the system has left special educators and classroom

teachers alike with a large scope of teaching methods and strategies to provide students within the general education setting, and without a lot of guidance as to what is best for students with disabilities. In spite of the efforts to reform the general education classroom, students with disabilities' achievement levels remain very low, to the point that by the secondary level, students with learning disabilities average to be 3.4 years behind the peers on grade level in their class in terms of reading, and 3.2 years behind in math (Cameto, Levine, Marder, Newman, & Wagner, 2003). While many general education teachers use evidence-based practices in their classrooms, they may not be using strategies appropriate and effective for their students identified with disabilities on a daily basis.

Purpose of the study

The purpose of this study was to investigate what knowledge general education teachers have of the characteristics of the disabilities that were present within their classrooms. Additionally, what strategies general education teachers at the elementary level were using within the general education classroom to meet the needs of their students identified with mild to moderate disabilities was investigated. Furthermore, this study proposed additional strategies teachers may use to help these students find success based upon the characteristics of their disability.

Literature Review

Characteristics of disabilities

Students provided an inclusive education are educated so that students with disabilities are able to learn in an environment that is outside that of a special education classroom (Kirby, 2017). One study suggests that instructional levels must be provided at various levels within the

same classroom in order for students with disabilities to find success (Lynch, 2016). Contrastingly, Ciullo et. al (2019) observed that others provide a more comprehensive approach to teaching; providing instruction on more basic concepts not typically covered in a upper elementary instruction, such as phonics, but still encouraging grade-level skills, such as comprehension. Over half the participants in another study utilized multiple instructors to provide interventions to students with disabilities (Carter & Kuntz, 2019). Furthermore, Carter and Kuntz found that although additional instructors including peers and paraprofessionals were substantially involved in the education of students with disabilities, the involvement of the lead general education teachers in the classrooms with these students seemed fairly limited.

A study conducted by Gilmour, Fuchs, and Wehby (2019) found that on average, students with and without reading disabilities displayed a gap equivalent to 3.3 years of reading growth. While a study from Wagner et. al. (2003) noted that many students received accommodations such as more time to take tests and/or assignments, the contradicting comparison was made that while there is change in the requirements for the students, changes to the teaching practice of the general education teacher was a far less common occurrence. Modified tests, different assignments, or instruction at a slower pace are given to about one-fourth of students with disabilities, while teachers modified the grading standards for an even less percentage of those students.

The gap in achievement could be shortened if the characteristics of the disabilities of the students are taken into account when designing their instruction. By knowing what their students need, general education teachers will be more equipped to meet those needs of their students within the general education classroom. For example, it is common for students with learning disabilities to struggle when generating ideas or choosing a topic, as well as demonstrating

domain knowledge, all of which can impact their writing skills (Kaldenberg, Ganzeveld, & Rodgers, 2016). Students with learning disabilities characteristically struggle with processing as well as working memory, and difficulties arise in mathematics within problem solving of story problems, where students are required to retain information from the first half of a problem, while processing the secondary portion, eventually integrating the two together to solve (Hord & Xin 2013). Supporting students focused on these characteristic deficits could improve success of teaching strategies and interventions within the general education classroom to see larger achievement by students with disabilities.

This study proposed the following research questions:

1. What do general education teachers know about the characteristics of mild to moderate disabilities?
2. What strategies are general education teachers using within the classroom to help reach students with mild to moderate disabilities?
3. What additional strategies can general education teachers apply based on knowledge of mild to moderate disability characteristics to facilitate success of students with those disabilities?

Methodology

Participants

The participants in this study included general education teachers at the elementary level. These teachers currently had one or more students in their classroom or had students within the last three years that they provided the majority of instruction to that were identified with mild to

moderate disabilities. This study did not include teachers who had not had experience instructing students with mild to moderate disabilities.

Setting

The research in this study was conducted at a rural elementary school in northern Indiana. Grades Kindergarten through grade five were taught in this school, with an enrollment of approximately 520 students. There were twenty-four general education teachers as well as additional support staff such as literacy interventionists, paraprofessionals, and counselors. Approximately 140 students in the school were identified for special education services.

Research Designs

Teachers at the elementary school that were currently instructing or had instructed students with disabilities within the past three years were provided a survey. The survey was in a digital format access through the use of Google Forms. The survey consisted of both open-ended and forced-choice questions. The following questions were asked:

1. How many years have you been teaching?

   0-3 years

   4-6 years

   7-10 years

   11-19 years

   20+ years

2. Think of a student that you have or have had in the past. What is/was this student's disability identification? If a student was identified with multiple disabilities, please choose their primary disability.

Other Health Impairment

Intellectual Disability (formerly known as "Cognitive")

Specific Learning Disability

Autism Spectrum Disorder

Language Impairment

Developmental Delay

Other:_____

3. What are 2-3 main characteristics of this disability? (open-ended)

4. What subject did this student struggle with the most?

Math- computation

Math- word problems

Reading decoding

Reading comprehension

Writing mechanics

Writing skills

Other:_____

5. How did the student demonstrate this struggle within the classroom? (open ended)

6. What strategies have you tried when supporting these students?

Small group instruction

One-on-one instruction

Modified assignments (content changed)

Shortened assignments (length changed)

Flexible seating options

Chunking of assignments

Peer modeling

Other:_____

7. Which strategy was most effective in teaching the student within your classroom? (open ended)

8. What resources and/or materials have you used to support students within the classroom?

Flexible seating

Manipulatives

Adapted writing paper

Graphic organizers

Pencil grips

Other:_____

9. Which resource or material was most effective in teaching the student within your classroom? (open ended)

10. What more do you feel you need to be successful in reaching the needs of your students in the classroom? (open ended)

Recruitment and Data collection procedures/methods

The completed survey was reviewed by the school principal for approval. Once approved, the principal sent out the survey to the intended participants. The results of the survey were

automatically sent back to the investigator once the survey was submitted by each participant. The survey provided was electronic and no identifiable information was collected. Data was electronically stored within a password protected electronic Google Drive file folder pertaining to the survey. This data is expected to be kept until May 2020, at which point the data will be destroyed. The Principal Investigator and Co-Investigator had access to the data that was collected through the survey

Data analysis procedures/methods

The surveys taken by the teachers were analyzed to find common responses. The most prevalent disabilities within this population were determined in order to judge what disabilities were covered in the project resource. Survey answers were analyzed to find common instructional strategies that general education teachers were providing. This data was analyzed to find what teachers already know about students with disabilities. This data was also analyzed to provide additional suggestions of strategies that teachers can use within their classrooms to provide support to their students with disabilities. This information was used to further guide what information on student disabilities and teaching strategies were provided in the project resource.

Timeline

The general timeline for this project was as follows:

> October 2, 2019: The special project proposal will be submitted to and reviewed by special education faculty.
>
> October 3 – October 8, 2019: Research will be conducted and/or the project will be worked on.

October 9, 2019: The rough draft of the IRB proposal will be submitted for review by the project advisor.

October 10 – October 15, 2019: Research will be conducted and/or the project will be worked on.

October 16, 2019: The timeline for the special project will be submitted for review by the project advisor.

October 17 – October 22, 2019: Research will be conducted and/or the project will be worked on.

October 23, 2019: The final IRB application will be submitted.

October 24 – November 5, 2019: Research will be conducted and/or the project will be worked on.

November 6, 2019: The Literature Review for the special project will be submitted to the project advisor.

November 7 – November 19, 2019: Research will be conducted and/or the project will be worked on.

November 20, 2019: The project Methodology will be submitted to the project advisor.

November 21 – December 3, 2019: Research will be conducted and/or the project will be worked on.

December 4, 2019: The draft of the first three chapters of the special project will be submitted to the project advisor.

December 5 – December 10, 2019: Research will be conducted and/or the project will be worked on.

December 11, 2019: The draft of the first three chapters will be reviewed and discussed, as well as the future of the research project will be discussed and planned.

December 12 – December 17, 2019: Research will be conducted and/or the project will be worked on.

December 18, 2019: The final copy of the first three chapters of the special project will be submitted to the project advisor.

Outline for Development of the Special Project

The special project was a booklet resource provided to general education teachers that provide daily instruction to students identified with mild to moderate disabilities. This resource was targeted to elementary level teachers. The disabilities discussed in this research were represented within this resource. The booklet was dedicated to characteristics of each disability, common strategies used to support the student (as determined by the findings of this study) and suggested additional supports that the teacher can provide within the classroom to further facilitate the student within their classroom. The booklet was outlined as follows:

I. Autism Spectrum Disorders
   i. Disability Characteristics
   ii. Common deficits
   iii. Additional strategies to support achievement focused from disability characteristics
II. Specific Learning Disability
   i. Disability Characteristics
   ii. Common deficits
   iii. Additional strategies to support achievement focused from disability characteristics
III. Intellectual Disability
   i. Disability Characteristics
   ii. Common deficits
   iii. Additional strategies to support achievement focused from disability characteristics
IV. Attention Deficit/Hyperactivity Disorder (Other Health Impairment)
   i. Disability Characteristics
   ii. Common deficits
   iii. Additional strategies to support achievement focused from disability characteristics

V. Developmental Delay
    i. Disability Characteristics
    ii. Common deficits
    iii. Additional strategies to support achievement focused from disability characteristics

VI. Language Impairment
    i. Disability Characteristics
    ii. Common deficits
    iii. Additional strategies to support achievement focused from disability characteristics

CHAPTER 2
LITERATURE REVIEW

Students within the public education system evaluated for special education services may be eligible for services if they are identified to meet the qualifications of one of the thirteen disability categories laid out within the Individuals with Disabilities Education Act of 2004. Students are able to receive services between the ages of three years and twenty-two years, up until the student receives a high school diploma. This lit review addresses the disability categories of Autism Spectrum Disorder, Specific Learning Disability, Other Health Impairment (specifically students diagnosed with Attention Deficit / Hyperactivity Disorder), Intellectual Disability, Developmental Delay, and Language Impairment, per the prevalence of these disabilities within the United States Department of Education child count report (Number of Children and Students Served Under *IDEA,* 2019).

Autism Spectrum Disorder

Students with Autism Spectrum Disorders (ASD) are becoming more and more prevalent within the public education system. The number of children diagnosed with Autism Spectrum Disorders (ASD) has manifested to 1 in 59 students according to a study by Baio et. al. (2018), depicting an increase of 150% since 2000. While the disorder previously was broken down into several different subcategories such as Asperger's syndrome or autistic disorder, it is now recognized as a disability category that umbrellas these categories together as one (American Psychiatric Publishing, 2013). In accordance with the Individuals with Disabilities Education Improvement Act of 2014, these students are educated within the general education classroom along with neuro-typical peers as much as possible and the student still be successful.

Characteristics and deficit manifestation

Students with ASD often have behaviors or interests that are very specific or ritualistic in nature, and they can sometimes be oppositional to changes in their daily routine or environment, causing aggressive or seclusive behaviors that can interfere with both their learning as well as the learning of other students (Baio et. al., 2018). For example, a student with Autism may have a very adverse reaction to a reading lesson being swapped for a math lesson if reading is always at a particular time, and could be as minor as exhibiting crying or general anxiety or range to intense fight or flight situations. These students also could likely have sensory needs that are under-sensitive or over-sensitive than that of the average student. They may react intensely to a change in temperature or scrape on the knee than another student in the general education classroom and may seek out activities that provide them with a certain sensory experience that is preferable to them (American Psychiatric Publishing, 2013), leading to the repetitive or specific nature that is observed.

Students with Autism have communication deficits that are presented in varying ways. They may have difficulty with picking up on non-verbal communications such as body language or verbal communication, such as having a back and forth conversation (American Psychiatric Publishing, 2013). One skill that these students often lack is the ability to make eye contact during a conversation or instruction. While a study by Carbone, O'Brien, Sweeney-Kerwin and Albert (2013) found that eye contact can be behaviorally taught to these students, they may at first only see this as a topical reinforcement, and deeper communication skills may need to be taught for them to fully understand the communication that happens when establishing eye contact. Additionally, students can struggle to demonstrate appropriate syntax (Terzi, Marinis, & Francis, 2016) which can carry over into the structure of not only their speech but in their writing

as well. These communication deficits can impact the student's ability to form relationships with peers, as according to the *Diagnostic and Statistical Manual of Mental Disorders: DSM-5* (2013), they may not be able to communicate effectively, may not be able to share interests with others due to their own restrictive behaviors, or may not initiate or engage in social interaction altogether.

When speaking, a common repetitive behavior that some students with ASD engage in is repeating words or phrases that they have heard elsewhere. This phenomenon is referred to as echolalia (Stiegler, 2015) and can occur in a variety of intensities; simple words or phrases, to as much as a movie word for word in its entirety. They may immediately repeat what is said, or the repetition may come in a different setting after hearing the phrase at an earlier time. While this communication can often be seen as meaningless, students sometimes will use repeated phrases in an appropriate manner. However, it can be difficult for a teacher to assess knowledge of a student that severely engages in echolalia, as they may consistently repeat the things the teacher says rather than answer spoken questions (Stiegler, 2015).

Academic and Behavioral Struggles

When attempting to separate academic struggles and behavioral struggles in students with Autism, it is found that the two are very intertwined. While a student may be strong academically, their behaviors may override and interfere with this strength. A study by Lanou, Hough, and Powell in 2012 found a student with writing difficulties would become overwhelmed before even beginning his writing. Due to communication deficits, it was difficult for him to voice if the assignments were too challenging, if he was confused, or if he was just uninterested in completing the task. Chiang and Lin (2008) found that approximately 52% of challenging

behaviors, ranging from tantrums or aggression to self-injury, were acts of expressive communication to refuse or request.

Mathematically, students in a study by Tietca, Toeyers, Loeys, Ceulmans, and Descoete (2015) were shown to fall behind at first with computation procedures in early elementary grades but were able to make up for this deficit as they progressed to intermediate grades. The same study also suggested that time telling and elapsed time could be a concept difficult for those with ASD to grasp due to its abstract nature. Another study suggests that deficits in executive functioning may play a part in whether a student with ASD struggles mathematically (John, Dawson, & Estes, 2018).

Characteristics of ASD can impact a student's ability to develop as their typical peers in their reading skills. Some students find it difficult to correlate reading of singular words, while others struggle with reading larger sections of text; however, it has been found that reading comprehension is a particular area of concern for these students (Aruili, Stevens, Trembath, & Simpson, 2013). This study showed that while many students could read at an average or above average word accuracy, their comprehension was limited. Another study by Davidson, Kaushanskaya, and Weismer (2018) attributes this phenomenon to deficits in a student with Autism's working memory. The working memory assists in comprehension by holding the information that was previously read; therefore, a deficit in working memory inhibits the student's ability to retrieve information effectively, resulting in a struggle with reading comprehension. An additional theory in this struggle is that while students are able to make inferences, they may not necessarily be able to answer questions addressing them or asking them to make inferences from their teachers (Tirado & Saldaña, 2016). Their difficulties processing language play a factor in this discrepancy.

In terms of writing, several characteristics of individuals with ASD work against students to apply good writing skills. Writing requires students to organize and plan their thoughts, use motor skills to physically write, and think abstractly in speaking to a fictitious listener (Asaro-Saddler & Saddler 2010). The study by Asaro-Saddler and Saddler (2010) suggests, however, that self-regulation is the largest deficit which impacts students with ASD and their writing skills, as this requires students to monitor their writing without frequent reminders from adults. It is difficult for students with Autism Spectrum Disorders to function independently in writing as they can struggle simply to get started. They may have trouble coming up with a topic to write about without assistance from an adult; being able to remember details about what they need to write, or staying on topic without straying to a preferred topic can also be difficult (Constable, Grossi, Moniz, & Ryan, 2013).

Specific Learning Disability

A Specific Learning Disability (also referred to as specific LD or SLD) impacts approximately 5-15% of school-aged children in one or more areas of academics, including reading, math, and written expression (American Psychiatric Publishing, 2013). Students identified with learning disabilities make up the largest portion of students receiving special education services (Cortiella &Horowitz, 2014), with about 40% of school-age children in special education receiving services based upon an identification of SLD (Samuels, 2017). Much like Autism Spectrum Disorders, specific learning disability is categorized as an umbrella term by Indiana Special Education Rules (I.A.C., 2019) that encompasses many common types of learning disabilities such as dyslexia, dysgraphia, dyscalculia, or auditory processing deficit, but the learning disability is not explicitly labeled by the public school systems during special education evaluation.

Characteristics and deficit manifestation

Students with a specific LD struggle with reading, math, written expression, or a combination of academics, despite the fact that they have been given targeted instruction to combat this deficit for an extended period of time (American Psychiatric Publishing, 2013). These areas of deficits are noted as "unexpected pockets" of strengths and weaknesses by Compton, Fuchs, Fuchs, Lambert, and Hamlett (2017), as the underachievement of these students does not match up with their intellectual abilities. These deficits spawn from differences in the brain impacting the way students receive and store information, process it, and/or retrieve the information to communicate (Cortiella & Horrowitz, 2014).

A study by Baldi, Caravale, and Presaghi (2018) suggests that students with specific learning disabilities struggle with some motor activities; those requiring fine motor skills such as drawing, writing, or cutting, or more general motor skills such as tying shoes, are skills that students with SLD are seen to have a delayed performance when compared to peers that are typically developing. It is also suggested that some students with a learning disability will struggle socially, although this is possibly due to other disabilities that occur simultaneously within the individual (Kavale & Mostert, 2004). Students with learning disabilities are unique in that they often feel a sense of responsibility for their deficits, resulting frequently in low self-esteem and laterally low expectations for themselves (Cortiella & Horrowitz, 2014).

Academic and Behavioral Struggles

Students with learning disabilities can have academic deficits in one or several areas. When students have a learning disability that is centered in reading, it is most commonly referred to as dyslexia (Cortiella & Horrowitz, 2014). Students with academic deficits in reading may

struggle with concepts as basic as recalling the sounds of letters within a word to decode them with accuracy. They can also have deficits in their reading fluency, rate, and prosody, often caused by this deficit in decoding as well as a lack of vocabulary knowledge. Their comprehension of text can be impacted when they are unable to read text fluently to grasp meaning. (Cortiella & Horrowitz, 2014, p. 3) The reading from these students may be very slow or forced, with a lot of effort put behind their decoding and fluency; contrastingly, they may read the text fluidly, but have a very hard time recalling what they have read or understanding the meaning of the text (American Psychiatric Publishing, 2013).

Students with a learning disability in mathematics (sometimes referred to as "dyscalculia") can struggle in a variety of ways within the classroom. These individuals may have difficulty with the semantics of counting, learning number facts, or recalling information for mathematical calculations (Wadlington & Wadlington, 2008). Mathematical concepts such as time, measurement, or money can also be difficult for students with a learning disability, and their ability to problem solve or use mental math strategies may be hindered (Cortiella & Horrowitz, 2014). Additionally, Wadlington and Wadlington (2008) noted that the language of mathematics can be particularly difficult for students with a learning disability, whether or not they struggle mathematically in terms of calculations; the language of symbols and vocabulary required for mathematics can be a source of frustration for those that struggle to decode words or comprehend texts. A study by Tressoldi, Rosati, and Lucangeli (2007) noted that a key factor in a student with a learning disability in mathematics is the inability to process numbers efficiently. They may count on their fingers to find an answer and can find themselves lost in the steps of or switching operations in the middle of standard algorithmic computation (American Psychiatric Publishing, 2013).

A learning disability can also manifest in writing, often referred to as dysgraphia (Cortiella & Horrowitz, 2014). While the disability focuses on writing, it is noted that writing encompasses a wide range of skills, including both the basic motor ability of writing as well as the ability to express one's self through writing, expressing thoughts orally, and even cognition itself (Special Education Rules, 2019). These students may have difficulties with vocabulary, accurate spelling, legible handwriting, and/or developing ideas; a student with co-residing reading difficulties will often have their struggles amplified, as they may struggle to read what they have written, particularly if poor handwriting is present (Hebert, Kearns, Baker Hayes, Bazis, & Cooper, 2018). In terms of motor skills, students may hold their pencil with an awkward grip, get tired easily when completing writing tasks, or outright avoid tasks that require them to write. Rather than only struggling to physically write, they can struggle to organizationally gather their thoughts to participate in the writing process as well. There may be large areas of missing content within their writing that is not expressed, and they may have difficulty writing with appropriate sentence structure or grammar to properly convey their ideas. (Cortiella & Horrowitz, 2014, p. 4)

Related deficits that correlate with learning disabilities help us to understand the behaviors of these students. While visual and auditory processing deficits are not defined subtypes of a specific learning disability, Cortiella and Horrowitz (2014) notes that understanding these areas of weakness within students can help to plan instruction that is effective and to support students presenting low self-esteem and frustration. Additionally, it was noted that students struggling to receive information auditorily can be impacted in the areas of reading, writing, and spelling that require listening to sounds or words; students struggling to receive information visually can be impacted in determining if a letter is an open or closed shape,

putting space between words, or recalling information that they saw in visual form. A study by Reiter, Tucha, and Lange (2005) found students with a reading disability did not draw as much information from a visual image, made mistakes in copying information from a visual image, and generally stored visual information for shorter time periods than their non-disabled peers.

Additionally, it is a frequent occurrence for students with learning disabilities to have hyperactive, inattentive, and/or impulsive behaviors, and estimates have shown up to one-third of students diagnosed with a learning disability are co-diagnosed with Attention Deficit/Hyperactivity Disorder (Cortiella & Horrowitz, 2014). Students with learning disabilities often when faced with cognitive work would rather answer rapidly than precisely (Al-Dababneh, & Al-Zboon, 2018). This impulsivity can vary from student to student, however, as supported by a study from 2005 in which students with a learning disability in reading were found to be significantly more impulsive than when compared to students with a learning disability in spelling (Donfrancesco, Mugnaini, & Dell'Uomo). Students with learning disabilities are at risk for heightened underachievement if they additionally exhibit impulsivity (Barahmand, Puru, & Khazaee, 2015).

Attention Deficit/Hyperactivity Disorder

The Individuals with Disabilities Education Act (2014) enables many students with attention deficit/hyperactivity disorder (ADHD) special education services under the defined eligibility of an Other Health Impairment, servicing individuals whose vitality, strength, and alertness is hindered (or heightened, in terms of alertness) due to an underlying medical condition, overall impacting the student's educational performance. ADHD is prevalent in 2-18% of students (Ghanizadeh, Bahredar, & Moeini, 2006). Students with ADHD are seen to have

academic impairments at a high incidence, and thus interventions within the school are often seen and recommended (Schultz, Storer, Watabe, Sadler, & Evans, 2011).

Characteristics and deficit manifestation

ADHD has two defining characteristics—inattention and hyperactivity—which can occur independently or together within a student, as defined by the *DSM-V* (2013). A student that struggles with inattention can make careless mistakes, may often forget or lose things, and be generally disorganized. These students may struggle to hold attention for more than a few minutes at a time, and in turn can likely seek to avoid such situations requiring them to attend. They can be easily distracted from the task at hand, and sometimes even when they are spoken to, it seems as though their mind is wandering elsewhere. In terms of hyperactivity, the *DSM-V* (2013) notes that these students may often wander from their seats in class, talk incessantly, or blurt out often due to high impulsivity. They can also struggle with completing routines appropriately, such as standing in line to wait their turn, or have difficulty playing appropriately with others as well. (American Psychiatric Publshing, 2013)

It is important to note that students with ADHD have brains that develop differently, averaging about 3-4% smaller than those of their non-disabled peers, with some regions of the brain that never catch up in terms of development (Schley, 2019). With a brain that is generally smaller and less active than other students, Fink (2016) notes that these students do not use dopamine appropriately; the chemical that makes us feel good and is a vital factor in our motivational systems. This chemical that students with ADHD often lack helps us to plan, switch between tasks, and stay motivated while working (Schely, 2019). This impaired or delayed

response to the environment around them is one of the most recognized characteristics of students with ADHD (DuPaul, Weyandt, & Janusis, 2011).

Academic and Behavioral Struggles

In the classroom, students with ADHD can be seen with messy desks, missing assignments, or projects that are late and disorganized (Fink, 2016). Not surprisingly, students with ADHD are likely to have lower grades than students without ADHD (DuPaul, Weyandt, & Janusis, 2011). In a study by McConaughy, Volpe, Antshel, Gorgon, and Eiraldi (2011), students with ADHD performed academically significantly lower than those without the disorder. While students with ADHD can struggle to focus within the classroom, they can also pull to the opposite end of the spectrum, hyper-focusing on details that maybe are not important to the over-all scheme or on an activity that is more preferred (Fink, 2016). There are often accommodations put into place for these students with intentions of improving academic performance, but it has been argued that such accommodations merely make circumstances easier for these students as they would for any other student, and are not necessarily closing the gap of achievement (Schultz et. al., 2011).

For students with attention deficit/hyperactivity disorder, the behavioral struggles can at first glance seem alarmingly blatant. However, students with ADHD are inhibited by these underlying brain deficits just as their other special education peers are, but their struggles are often masked by the volume of their louder, more impulsive behaviors. Students with ADHD are at a heightened risk to have discipline issues and have anti-social behaviors (American Psychiatric Publishing, 2013), and are often perceived as a behavior issue or lazy by others (Fink, 2016). Contrastingly, students with ADHD that do not exhibit these more extravagant

behaviors often go undiagnosed, as is the case with many females and minorities whose behaviors may be more distractible or unorganized (Fink, 2016).

Intellectual Disability

The IDEA child count of 2017-18 (United States Department of Education, 2019) depicts approximately 7% of students that are serviced through special education are categorized with an intellectual disability. This disability has been recognized under different identifications in past research. A federal statue in the United States known as Rosa's Law (Public law 111-256, Rosa's law) replaces the previous, more well-known term *mental retardation* with *intellectual disability*, and the *DSM-V* (2013) notes that research journals use the term *intellectual disability* as well; thus, the term *intellectual disability (ID)* is used throughout this research. This research is focused on students with mild to moderate severity due to their participation in the general education setting (IDEA, 2004) determined appropriate based upon their adaptive functioning levels (American Psychiatric Publishing, 2013).

Characteristics and deficit manifestation

A student with an intellectual disability performs academically and adaptively below their peers (IDEA, 2004). An intellectual disability can range in severity from mild to profound, based upon the adaptive skills that a student possesses (American Psychiatric Publishing, 2013). These adaptive skills are judged by an individual's ability to meet social and cultural norms—being able to communicate effectively, complete daily tasks to be personally independent, and exhibiting planning and decision-making skills (Gligorović & Buha Đurović, 2014). Academically, a student with an intellectual disability is measured to be at least two standard deviations below normal achievement (American Psychiatric Publishing, 2013), and thus will

usually perform at a lower academic level across all areas, with relative strengths still being at a lower level than would be expected. However, adaptive skills are greatly taken into account with this disability, as the *DSM-V* (2013) notes a student with a higher IQ could still struggle greatly to perform in everyday situations.

Academic and Behavioral Struggles

Students with an intellectual disability often have difficulties with phonological-awareness and letter-sound relationships, creating difficulty when learning to read (Sermier Dessemontet & de Chambrier, 2015). Additionally, students with ID likely will struggle with academic processes that require use of memory, such as remembering of phonics patterns or computation processes. Both the short-term memory and working memory of students with ID was shown to lag in development in a study by Van der Molen, Henry, and Van Luit (2014), with short-term memory seeming to plateau by the age of ten. The *DSM-V* (2013) notes that these students often struggle with tasks such as reasoning or thinking abstractly, and may not always learn from previous experiences. Additionally, the self-esteem of students with ID can impact their learning abilities. A study by Donohue, Wise, Romski, Henrich, and Ann Sevcik (2010) suggests that these students are impacted by their concept of self, just as typically developing peers, and thus may be less likely to engage in tasks that are cognitively challenging for them, only adding to academic struggles.

Students with intellectual disabilities are more prone to challenging behaviors, as it is difficult for them to cope when faced with different stressors, whether those be environmental or personal in nature (Bosco et. al. 2019). Students with ID can struggle to interact socially in an age-appropriate manner (Sigstad, 2018), often representing as immature or socially inept to peers

as well as adults. They may often inadequately perform formal social rules, as well as struggle with the more informal social cues that require more interpretation and are thus more abstract, such as body language (Carter & Hughes, 2005). A study from Einfeld et. al. (2006) noted that younger individuals exhibited more disruptive behaviors, such as cursing, disobedience, manipulation, or untruthfulness. Conflictingly to interacting inappropriately, students may not interact socially at all (American Psychiatric Publishing, 2013) and may be seen as the quiet, withdrawn student that struggles to participate.

Developmental Delay

Students with a developmental delay are common, as developmental delay is seen pediatrically in 5-10% of children (Tervo & Asis, 2009). Developmental Delay (DD) is a unique disability category in that it is the only disability within the Individuals with Disabilities Education Act (2004) that requires a student to be within a specific age range in order to be identified with this disability. Individuals within the age range of no less than three years but no more than nine years fall into the developmental period where a diagnosis of developmental delay may be appropriate, and individuals must be reevaluated by the time they reach nine years of age to determine if another disability is present. Thus, a developmental delay is not a lifelong disability, and a diagnosis of developmental delay does not guarantee further diagnosis in the future (Tirosh & Jaffe, 2011).

Characteristics and deficit manifestation

Much like students with intellectual disabilities, students identified with a developmental delay will perform academically lower overall than their average peers. This may include fine or gross motor activities, development of language abilities, or development of social-emotional or

adaptive abilities (IDEA, 2004). While a developmental delay can be an early indicator of learning or attention difficulties, this is not always the case; delays may be short-term and something that the student will improve upon once they have had sufficient time to catch up (Singh & Anekar, 2018).

Academic and Behavioral Struggles

Students with a developmental delay in the classroom may struggle with problem solving skills (Singh & Anekar, 2018), as they might be delayed in their cognitive thinking, impacting the way that they play with objects or others. It is also common and possible that their fine or gross motor skills—the ability to make movements with small extremities, such as our fingers, or large extremities, such as our legs, respectively—may be lagging. This could impact students as they begin to cut, write, draw, or engage in dramatic play. Socially, if they are delayed, they may struggle to develop relationships with their peers. (Singh & Anekar, 2018) If a student is delayed in their expressive language, this can impact their social competence as well, further complicating their social relationships (Tervo & Asis, 2009). A study by Kurtz and McIntyre (2017) notes that students with DD are more likely than their peers without DD to have challenging behaviors.

Language Impairment

The *DSM*-V (2013) refers to Language Impairment under the term language disorder; the Individuals with Disabilities Education Act (2004) refers to a language impairment in terms of a communication disorder. The term language impairment is used within U. S. schools and thus is reflected as so in this research. Language impairment (LI) impacts approximately 17.3% of students receiving special education services (Halls-Mills, 2019). While students with language

impairment in the classroom are common, the actual prevalence rate of students with language impairment can be hard to pinpoint. Halls-Mills (2019) also notes that students with speech impairment and language impairment as their primary disability are lumped into a single disability category in terms of U.S. Department of Education counts; additionally, there are students that have a speech or language impairment as their secondary disability as well. This causes the actual prevalence line to blur, suggesting that the rate of students with inhibited language skills is much higher than traditional counts reflect Adlof, Scoggins, Brazendale, Babb, and Petscher (2017).

Characteristics and deficit manifestation

The *DSM-V* (2013) defines a language impairment as inhibited comprehension of or expression language, whether it be written, spoken, or a combination of modalities. Students with language impairment have a high risk of deficits in phonological processing, a deficit that is particularly difficult for some students to overcome (Tambyraja, Farquharson, Logan, & Justice, 2015). Deficits can be heightened if the student also has a learning disability. A study from Vandewalle, Boets, Ghesquière, Zink, Oetting, and Dockrell (2012) studied a correlation suggesting students with a language impairment may be at a higher risk to develop Dyslexia, a common learning disability in reading, due to the high co-morbidity rates of the disabilities. Working memory deficits have also been frequently reported with students that have language impairments (Archibald & Harder Griebeling, 2016).

Academic and Behavioral Struggles

Students with LI are seen to have shorter, disorganized writing with more errors when compared to typically developing peers (Dockrell, Lindsay, & Connelly, 2009). Difficulties with

phonological processing often results in students with LI representing as poor readers (Tambyraja, Farquharson, Logan, & Justice, 2015). They may also have difficulty remembering longer portions of verbal information (American Psychiatric Publishing, 2013), thus impacting their ability to remember and follow verbal directions or comprehend a text that is read aloud. These students may struggle to form relationships with their peers due to their deficits in expressive communication (Mok, Pickles, Durkin, & Conti, 2014). Additionally, a study from Schneider and Goldstein (2009) notes that students with developmental disorders like language impairment can have difficulty controlling their behaviors, particularly being on task and interactions with others.

Academic and Behavioral Strategies and Resources

Students with disabilities are educated within the general education classroom and given access to the general education curriculum as much as possible dependent upon the needs of the student (IDEA, 2004). In order to have access to the curriculum, King (2008) states that educators should provide "a variety of presentation and practice opportunities that provide choices for how students receive, practice and learn content" (p. 56). Students are very diverse in their range of needs, and even students within the same disability identification can vary widely on what they need to be successful in the classroom (McLaughlin & Overturf, 2012). Accommodations are a means of holding students to the same academic requirements as their typically developing peers, but giving them an aide so as to level the playing field and improve their odds of achievement in spite of their disability (Harrison, Bunford, Evans, & Owens, 2013).

There are many different educational resources and academic and behavioral strategies that general education teachers use not only with students identified with disabilities, but every

day with all students, that are beneficial to these students as well. Rogers, Thurlow, Lazarus, & Liu (2019) describe accommodations as broken down into five categories of consideration in their report: presentation, equipment/materials, response, timing/scheduling, and setting. The accommodations within this research are discussed in terms of academic and behavioral benefits based on deficits that individuals with disabilities represent in the classroom.

As Harrison et al. (2019) discovered in their research, the terms intervention, accommodation, and modification are used interchangeably throughout education and are thus not always straightforward in definition for interpretation by general education teachers. While an accommodation allows a student to complete grade level assignments with a boost, modifications are compensatory—they change the expectations of the student, making their grade-level experience different from that of their peers (Harrison et al., 2019). Changing the content of an assignment, while sometimes common practice in the general education classroom due to the confusion of terminology and expectations, poses complications to the student's educational placement requirements. Fuchs et al. (2015) studied the achievement of students with very-low academic performance in the classroom. While students were supported in an inclusion model, with modifications made to the curriculum to align with (but in contrast of) the Common Core State Standards required to teach students, there was an argument made for whether students were genuinely able to access the curriculum in this manner, thus supporting the idea that these students receiving modifications may be best serviced outside of an inclusion setting.

Shortening the length of assignments is a response accommodation in which students are required to work at grade-level, but the amount of questions or tasks expected of them to complete are reduced. Harrison et al. (2013) notes that students with behavioral challenges can benefit from this tactic, as they may be less inclined to engage in disruptive behaviors due to less

time spent on challenging work; however, there is the opposing factor that shortening assignments for students already struggling with grade-level content then are exposed to less opportunities to practice the skill. Rogers et al. (2019) found that students in fifth grade completed more test questions when they were presented with less questions than their peers within the same time frame.

Small group instruction is an accommodation that is often encouraged not only for students with disabilities, but for all students in the inclusion classroom. Instruction provided in small groups is efficient and effective in targeting the needs of students that may be struggling in certain academics or for whom which the pace of whole group instruction needs to be slowed (Noltemeyer, Joseph, & Kunesh, 2019). Small group instruction can also foster relationships and pragmatics, as well as support critical-thinking skills (Wyatt & Chapman-DeSousa, 2017). A study comparing small group instruction in students with and without disabilities by Winstead, Lane, Spriggs, and Allday (2019) found that small group instruction naturally lends itself to provide interactions with peers. It is suggested that teachers take advantage of small group instruction in order to maximize instructional time, as students can learn not only from the instructor, but from one another in terms of academics as well as social and behavioral skills.

Similar to small group instruction, one-on-one instruction provides a slower pace of instruction that is more targeted to student skills but involves only one student and the instructor. In the inclusion setting, students are able to receive one-on-one instruction embedded in the classroom, allowing instruction of skills to occur organically rather than in a predetermined lesson in a separate setting (Jameson, McDonnell, Johnson, Riesen, & Polychronis, 2007). A study from 2012 noted that one-on-one instruction of students with disabilities embedded into the classroom was an effective teaching strategy (Jameson, Walker, Utley, & Maughan). The

2007 study from Jameson et al. showed results that varied from student to student in terms of one-on-one instruction and its relationship to achievement when presented embedded within the classroom versus in a separate setting. While some students benefitted from the instruction in the classroom, others were more successful in a separate setting, and others still seemed impartial to the differentiation of settings. This supports McLaughlin and Overturf (2012) in that students with disabilities will not all respond to the same accommodations and will require individualized instruction.

Peer-modeling is a widely used strategy that provides a positive behavior example set by peers of an individual with behavioral challenges. Cardon, Wangsgard, and Dobson (2019) explains that modeling is the act of performing behaviors that an individual will then see and in turn replicate. This can be beneficial in that it provides a model that can increase likelihood based on the desirable behavior being more socially acceptable in seeing that other peers are participating in the behavior (Richards, Heathfield, & Jenson, 2010). Students with Autism Spectrum Disorders have benefitted from the use of peer-modeling in terms of targeted behaviors, as well as social and communication skills (Cardon et al. 2019). Modeling can be presented through a short video as well, spanning no more than 2-4 minutes, and having a great preventative impact on not only students with disabilities, but has been seen effective as a whole-class model as well (Richards et al. 2019). Additionally, modeling can take place in hands on situations such as during small group instruction (Ledford & Wolery, 2013).

Chunking is a cognitive processing of visual information that many individuals take part in instinctively (Akyürek, Kappelmann, Volkert, & van Rijn, 2017). When presented with a long string of numbers, for example, it is instinctive for us to break the number down into manageable parts (or “chunk” the number) to enable us to recall the information easier (Fendrich, & Arengo,

2004). Students with disabilities that inhibit cognition, such as learning disabilities or intellectual disabilities (American Psychiatric Publishing, 2013), can look at a sheet of math problems or page of text and become overwhelmed, unable to break the task down into manageable parts themselves. Supporting students by highlighting a section of problems to do at a time, or covering up text so that a student is only reading one paragraph or one line at a time can assist students in this cognitive process and thus prevent them from becoming overwhelmed with information. This can also assist students with ADHD who struggle to focus; rather than being asked to take in the entire page of information, they are only asked to take in a small amount at a time.

A common accommodation often suggested by occupational therapists in conjunction with general and special education teachers is the use of alternative seating within the classroom (Fedwa & Erwin, 2011). Options for seating provide students with different resources to meet their individual needs, such as a quieter space within the room, or a spot with a better view of the teacher (Fernandes, Huang, & Rinaldo, 2011). As students sit in differentiated seats, they are able to practice balance and gain muscle strength while an additional sensory component is provided as well (Fedwa & Erwin, 2011). Students with ADHD have been noted to benefit from the use of sitting on a stability ball during instruction, as doing so allows them to release some of their energy, thus decreasing the amount of behavioral issues and increasing focus (Taipalus et al. 2017). This has also been noted as true for students with dyslexia, as these students often struggle with inattention as well and have a high prevalence of being diagnosed with ADHD as well (Goodmon, Leverett, Royer, Hillard, Tedder, & Rakes, 2014). Additionally, a study by Seifert and Metz (2017) saw significant improvements in student engagement when preschool students were permitted to sit on inflatable discs (wobble cushions) that allowed movement.

Teachers themselves often prefer to sit in alternative seating, further supporting the validity of this accommodation (Fedwa & Erwin, 2011).

Manipulatives are concrete materials that a student is able to manipulate in order to assist in completing math processes, including items such as base ten blocks, play money, or bingo chips (Bouck & Park, 2018). Manipulatives are a core instructional tool within mathematics instruction that can be particularly beneficial to students with disabilities; however, Carbonneau, Marley, and Selig (2013) notes that the severity of achievement is dependent upon delivery, as coupling with other effective practices as well as the level of guidance provided to the student when using them. Bouck and Park (2018) note that although manipulative usage is not recognized as an evidence-based practice, students benefit from the use of them, and teachers are able to use whatever they have available rather than needing a specific material to foster student success. With the increased development of technology, manipulatives are also available in a technology-based format through the use of applications on devices, most of which mimic concrete manipulative usage in a digital format. (Bouck & Park, 2018)

The use of graphic organizers in the classroom can create many accommodations for students with disabilities. Graphic organizers have been frequently used to assist students with learning disabilities express and organize their thoughts in written form (Ewoldt & Morgan, 2017). A study from Ae-Hwa Kim, Vaughn, Wanzek, and Shangjin Wei, (2004) depicts that graphic organizers can facilitate increased reading comprehension in students with learning disabilities as well. This study accommodated students with semantic organizers, cognitive maps, and framed outlines to assist in student achievement. Furthermore, Rivera and Baker (2013) demonstrate using graphic organizers to assist in the organization of algebraic concepts for students with intellectual disabilities. Graphic organizers are visual/spatial representations of

information (Baxendell, 2003) and can be used for a variety of subjects to support visualization of concepts in students with disabilities.

Attitudes of Teachers

The term *inclusion* refers to students with disabilities receiving all or part of their education in the environment that is the same as their peers without disabilities. The terms *mainstreaming* and *integration* have been used throughout previous research in reference; however, *inclusion* is the most commonly referred to term at the time of this research. This approach to education of students with disabilities has been widely desired by teachers, parents, and even students with disabilities themselves, and teachers for the most part project a positive perspective to teaching students with disabilities within the general education classroom (Eriks-Brophy, & Whittingham, 2013). However, some hurdles do impact the attitudes of teachers within the inclusive environment.

Teacher Training

A lack of formal training can impact a teacher's willingness to provide inclusive education to students within the general education classroom (Sharma & Nuttal, 2016). Cambourne's research (as cited in Sharma & Nuttal, 2016) found that although degree programs seek to provide adequate preparation for teachers, the majority of recent graduates reflected a dissatisfaction their preparedness to teach students with disabilities in a general education classroom. A study from Carvalhais and da Silva (2010) revealed that 66% of the teachers surveyed had never had any training in working with or instructing students with dyslexia. When teachers were provided training in behavioral instructional techniques in a study from GÜLEÇ – ASLAN (2013) for students with ASD, student behaviors decreased and the knowledge of the

teacher on how to implement further behavior supports increased. An additional study found that while many teachers did not possess the needed knowledge to teach students with learning disabilities, professional development could enhance this knowledge (Washburn, Joshi, & Binks-Cantrell, 2011).

Available Resources and Supports

While many teachers may receive training on supporting students in different subject or disability areas, receiving resources or supports to assist in the implementation of this training can be another hurdle that teachers face. Teachers often find and customize their own teaching materials from teacher-made websites and internet searches due to not being provided the materials necessary to carry out strategies learned within professional development opportunities (Ciullo et. al., 2019). A study from Gal, Schreur, and Engel-Yeger (2010) found that teachers often felt they needed smaller class sizes to be able to give students adequate instruction, or more supportive staff to assist within the classroom. Although more than half of the teachers surveyed by Carvalhais and da Silva (2010) had not been trained to instruct students with dyslexia, there were only a very minimal number of teachers provided support to combat this factor.

Misconceptions

There are often some misconceptions around inclusive education that impact the way that inclusive education is implicated. It has been noticed that students with disabilities that represent conduct issues are perceived as fully in control of their behaviors and thus aren't always treated with accommodations or supports for this behavior as a teacher might for a student whose disability can be seen outwardly (such as a physical impairment) (Barr & Bracchitta, 2008). For example, individuals with ADHD are often assumed to simply be putting in a lack of effort

towards their schoolwork, or generally be a behavior problem (Fink, 2016). Another study showed respondents express a feeling of heightened stress at the thought of having students in the classroom with disabilities (Forlin & Chambers, 2011).

Students with disabilities require multiple strategies in order to access the curriculum within the general education setting (King, 2008). While teachers are generally accepting of inclusive education (Eriks-Brophy, & Whittingham, 2013), teachers have reported to be under trained and under supported in providing this instruction (Sharma & Nuttal, 2016). Students with disabilities have a multitude of characteristics related to underlying brain processes that they may have deficits within; deficits which are often perceived has behavioral issues or laziness from students (Barr & Bracchitta, 2008). This research addressed what characteristics general education teachers have knowledge of in terms of students with disabilities in their classrooms. Strategies that teachers were using within the classroom were researched, as well as what additional strategies could be applied to meet the needs of the students.

CHAPTER 3
METHODOLOGY

Participants

The participants in this study included general education teachers at the elementary level. These teachers were currently providing the majority of curriculum instruction to one or more students within their classrooms identified with mild to moderate disabilities or had done so to one or more students that met these criteria within the past three school years. This study did not include teachers who had not had experience instructing students with mild to moderate disabilities. These professionals were selected due to their employment at the IRB approved elementary school. The researcher is a special education resource teacher at the IRB approved elementary school.

Role of Researcher

I am currently employed at the IRB approved elementary school. I was initially trained in general education strategies and am a certified general education teacher. I work as a special education resource teacher operating on an emergency permit as I pursue my degree in special education. I may represent bias based on my limited knowledge of students with disabilities entering the field of special education as a general education teacher compared to my greatly widened knowledge obtained after working in the field for almost three years. Additionally, in working as a special education teacher, I am an advocate for those students with disabilities and special needs and hold high expectations for their quality of and access to education.

Setting

Research took place at a rural elementary school in northern Indiana. In this school, Kindergarten to Grade Five are taught, with an enrollment of 498 students. Twenty-four general education teachers are employed alongside a special education resource teacher and speech language pathologist, as well as additional support staff including one literacy interventionist, three literacy paraprofessionals, two special education paraprofessionals, and one guidance counselor. The school also has assistance in providing special education services from a physical therapist, occupational therapist, blind/low vision teacher, and deaf/hard of hearing teacher, all of which travel throughout the district. Per the information found on the Indiana Department of Education website, the school population is ethnically homogeneous, with 91.56% of the student population identified as white, 0.006% Asian, 0.002% American Indian, 0.03% Hispanic, and 0.04% as multi-racial. Although there are students of different races enrolled at the school, there is a 0% population of students identified as English Language Learners. There are 31.9% of students that receive a reduced or free lunch. Students receiving special education services make up 14.66% of the student population. (IDOE, 2019)

Research Design

Teachers at the IRB approved elementary school currently instructing or having had instructed students with disabilities within the past three years were provided a survey. This survey was digital in format accessed through the use of Google Forms, a program viable for all teachers. The survey consisted of both open-ended and forced-choice questions (see Appendix A).

Recruitment and Data Collection

The completed survey was reviewed by the principal of the IRB approved elementary school for approval of distribution to staff members. Once approved, the principal sent out the survey to intended participants along with a letter that stated the intention of the survey and the participation options of staff members (see Appendix B). This letter stated that no identifiable information would be collected, that participation within the survey was voluntary, and that the participants were able to end their participation within the survey at any time. The results of the survey were automatically returned to the investigator once the survey was submitted by each participant as a feature of Google Forms. The survey provided was electronic and no identifiable information was be collected. Data was electronically stored within a password protected electronic Google Drive file folder pertaining to the survey. This data was kept until May 2020, at which point the data was destroyed. The Principal Investigator and Co-Investigator had access to the data collected through the survey during this time frame.

Once the survey was closed, the data was gathered and analyzed to address the three research questions. The results of the data were used to determine what characteristics of disabilities general education teachers were aware of, what strategies are being currently used to address the needs of students with disabilities, and what additional ways can we support these students within the general education classroom based on the characteristics of their disabilities.

Timeline

The general timeline for this project is as follows:

> October 2, 2019: The special project proposal will be submitted to and reviewed by special education faculty.

October 3 – October 8, 2019: Research will be conducted and/or the project will be worked on.

October 9, 2019: The rough draft of the IRB proposal will be submitted for review by the project advisor.

October 10 – October 15, 2019: Research will be conducted and/or the project will be worked on.

October 16, 2019: The timeline for the special project will be submitted for review by the project advisor.

October 17 – October 22, 2019: Research will be conducted and/or the project will be worked on.

October 23, 2019: The final IRB application will be submitted.

October 24 – November 5, 2019: Research will be conducted and/or the project will be worked on.

November 6, 2019: The Literature Review for the special project will be submitted to the project advisor.

November 7 – November 19, 2019: Research will be conducted and/or the project will be worked on.

November 20, 2019: The project Methodology will be submitted to the project advisor.

November 21 – December 3, 2019: Research will be conducted and/or the project will be worked on.

December 4, 2019: The draft of the first three chapters of the special project will be submitted to the project advisor.

December 5 – December 10, 2019: Research will be conducted and/or the project will be worked on.

December 11, 2019: The draft of the first three chapters will be reviewed and discussed, as well as the future of the research project will be discussed and planned.

December 12 – December 17, 2019: Research will be conducted and/or the project will be worked on.

December 18, 2019: The final copy of the first three chapters of the special project will be submitted to the project advisor.

Ethical Issues

To maintain ethical excellence, permissions were obtained from the participating elementary school administration, university of researcher attendance, and of the survey participants before research conduction began. The researcher was certified in CITI training group 2 coursework (see Appendix C) and a letter of approval was obtained from the school principal (see appendix D) and submitted to the IRB for further approval. Participants were assured that their participation in the survey was voluntary and that in choosing to participate, they had the option to end their participation at any point in time. Privacy and confidentiality of the information of participants were protected by not collecting identifiable information and keeping survey data within an encrypted Google Drive folder which only the Investigator and Co-Investigator were able to access.

Outline for Development of the Special Project

The resource booklet was in the format of a tabbed notebook. Tabbing the notebook to each individual disability category ensured that teachers were able to quickly access information that was needed at a given time. An introduction was provided in the front of the booklet detailing an overview of current teachings of students in the least restrictive environment versus how there has been a shift beginning focusing more on achievement rather than location of the student. Within each tabbed portion, sections were broken down that described the characteristics of the disability, common deficits of students with the disability, and additional strategies to support the student, particularly based on the disability characteristics. Lastly, an ending portion was provided within the booklet for additional references teachers could use when supporting students with disabilities.

CHAPTER 4
RESULTS

Teachers at the IRB approved elementary school currently instructing or having had instructed students with disabilities within the past three years were provided a survey. Eight individual submissions were received in response to the survey, a return rate of 30%. In order to establish a baseline of experience, teachers were first asked, "How many years have you been teaching?", there were eight responses received. 62.5% of respondents had taught for 11-19 years, 12.5% for 7-10 years, and 25% for 20 or more years of experience.

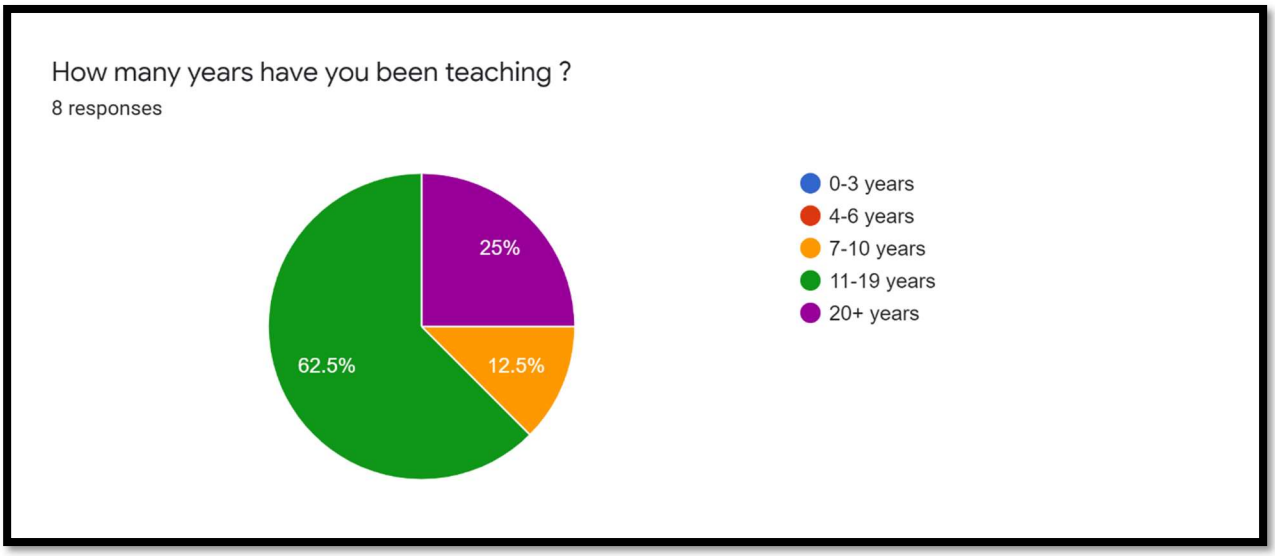


Figure 1. Years of teaching experience

Number of students with disabilities

"Think of a student that you have or have had in the past. What is/was this student's disability identification?" This question was a forced-choice format. There were eight individual responses obtained for this question. Three individuals selected the choice of "Specific Learning Disability". Three others also chose "Autism Spectrum Disorders". The last two individuals

selected “Other Health Impairment (most common is a diagnosis of ADHD)”. There were no responses that opted for “Intellectual Disability (formerly known as ‘Cognitive’ ”, “Language Impairment”, or “Developmental Delay”.

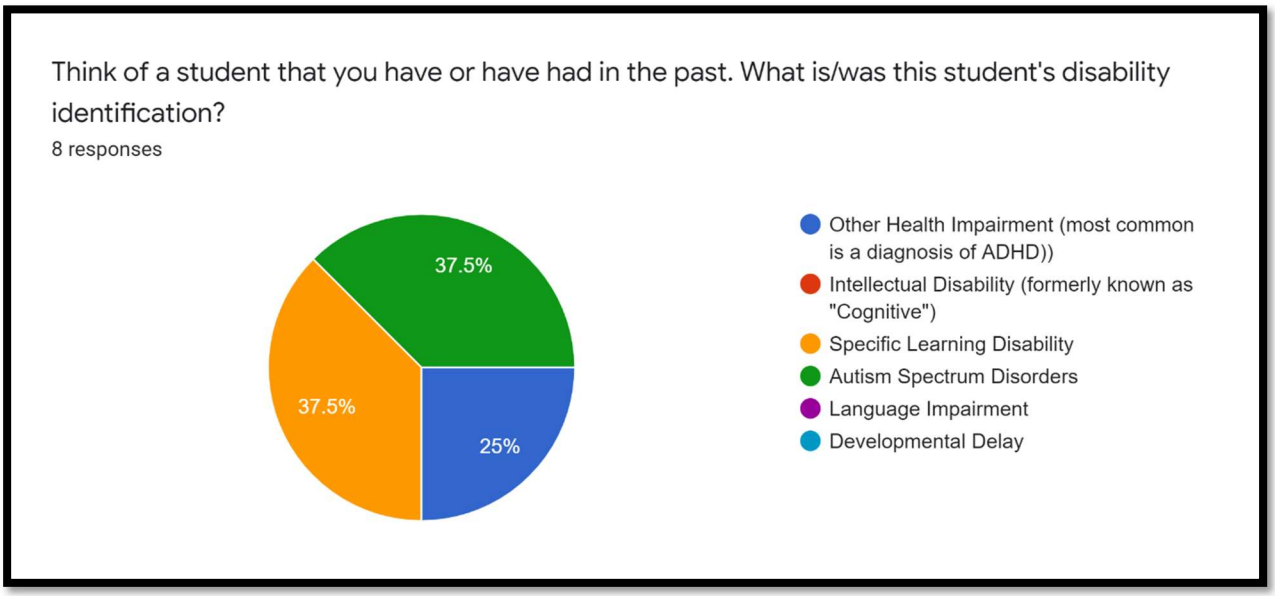


Figure 2. Number of students with disabilities

Disability Characteristics

“What are 2-3 main characteristics of this disability?” Responses for this open-ended question were broken into sections based on the disability initially chosen. This question was an open-ended response with eight individual submissions. In response to the disability “Other Health Impairment”, the two respondents both referred to difficulties with focusing. One responded impulsivity, while the other similarly noted specifically talking out [of turn]. Additionally, one of the individuals noted poor social relationships. For those that had chosen “Autism Spectrum Disorders” as their disability of focus, two teachers referred to social interaction with peers being a struggle for these students. Other characteristics pointed out were also behavior-based, including lack of eye contact and sudden outbursts in the classroom. One

teacher additionally commented on the communication of the student being non-verbal. “Specific Learning Disability” received three individual responses. Two respondents noted that characteristically, students with specific LD struggle with writing skills and expression, with one teacher specifically stating spelling as a struggle as well. Two teachers also recalled reading as a difficulty for students with LD, one particularly in the area of comprehension. Another individual added that these students have difficulty retaining information.

Table 1

Characteristics of students with disabilities noted by their general education teachers, organized by disability category.

Disability	**Characteristics**
OHI	focus, talking out and poor social relationships
	Inability to focus and impulsive
ASD	Did not look me in the eyes/Anti social-repetitive behavior
	Autism spectrum with sudden outbursts and quick mood changes.
	Difficulty making friends and nonverbal
SLD	spelling difficulties, writing skills are below level
	difficulty retaining information, comprehension difficulties
	reading difficulties, difficulty with written expression

Student Struggles

“What subject did this student struggle with the most?” This forced-choice question received eight responses, broken down per the individual disability that they initially chose for the survey. In terms of Other Health Impairment, both of the two respondents selected reading

comprehension. Of those that selected Specific Learning Disability, two selected math word problems as an area of struggle for their students, while one chose reading decoding. The teachers with Autism Spectrum Disorders chosen as their disability of focus, the responses were different for all three respondents. While two responses were similarly involving writing, one struggled with the mechanics of writing while another was deficient in writing skills. The third individual felt that math word problems were an area of struggle for their student.

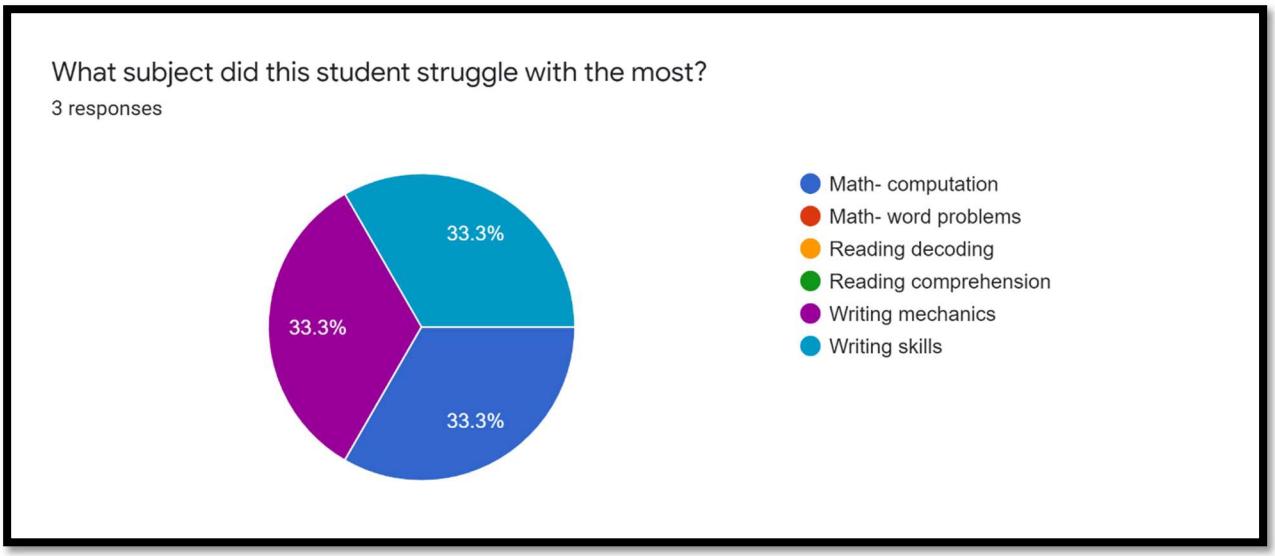


Figure 3. Student struggles

Demonstration of Struggles

"How did the student demonstrate this struggle within the classroom?" For the two teachers that had chosen Other Health Impairment as their disability of focus, two individual open-ended responses were given. One respondent noted that their student's test scores were poor, and they "did not try". The second teacher replied that the student had a lot of difficulty remaining on task, as well as needed "constant support and redirection". When asked about students with specific learning disability, two teachers noted that their students struggled to find information in word problems that enabled them to solve them. The third individual depicted

their student with low reading scores and as reading and writing “below level”. Of the teachers with students with Autism Spectrum Disorders, one described that their student struggled to retain math strategies. Another noted that the student’s work was often hard to read and they were not very motivated to write. The third respondent’s student would cry whenever a writing task was given.

Strategies

“What strategies have you tried when supporting these students?” Teachers were presented this question in a forced-choice format. In regards to students with Other Health Impairment, both respondents selected small group instruction, one on one instruction, and flexible seating options. One teacher additionally modified the assignments of the student, and used a watch that would vibrate to enhance focus. Of the teachers that selected Specific Learning Disability, all three unanimously selected small group instruction, one on one instruction, flexible seating options, accommodated assignments, and modified assignments. Two individuals additionally selected peer modeling, with a third adding their own option of manipulatives and problem-solving strategies. For those that selected Autism Spectrum Disorders, three respondents chose the options of small group instruction, one on one instruction, accommodated assignments, and modified assignments. Additionally, two teachers selected flexible seating options and peer modeling.

Table 2.

Teaching strategies implemented by teachers in the general education classroom to support students with disabilities, organized by disability category.

Strategy	**OHI**	**SLD**	**ASD**
Small group instruction	2	3	3
One-on-one instruction	2	3	3
Modified assignments (content changed)	1	3	3
Shortened assignments (length changed)	0	3	3
Flexible seating options	2	3	2
Chunking of assignments	0	0	0
Peer modeling	0	2	2
Other	1	1	0

Effective Strategies

"Which strategy was most effective in teaching the student within your classroom?" The individuals with Other Health Impairment as their selected disability had very different responses to this open-ended question. One responded that breaks and one-on-one instruction were most effective for the student, and noted that "He was a good boy, just struggled to control himself". The second respondent noted that of the strategies they tried "none were very effective". Two teachers that selected Specific Learning Disability agreed that modified assignments were most helpful to their student, with one specifically noting these assignments being completed in a one-on-one instructional setting. The third individual agreed that small group and one-on-one instruction were the most effective for their student. Teachers with Autism Spectrum Disorders

were similarly in agreement, with two individuals selecting one-on-one instruction for their student. The third teacher responded that modified assignments were most effective for their student.

Resources and Materials

"What resources and/or materials have you used to support students within the classroom?" Of the two teachers that selected Other Health Impairment as their disability of focus, one chose flexible seating, manipulatives, graphic organizers, and pencil grips. This individual also added in the "other" section "stress bands, sensory tools, rewards". The second respondent selected fewer options, only choosing pencil grips and graphic organizers. For those individuals with students with Specific Learning Disability, all three respondents chose the option of manipulatives. For one individual, this was the only option that they selected. For another, they additionally selected graphic organizers and flexible seating. The third teacher selected these, as well as adapted writing paper.

Table 3.

Resources and materials used by teachers in the general education classroom to support students with disabilities, organized by disability category.

Resource / Material	**OHI**	**SLD**	**ASD**
Flexible Seating	1	2	3
Manipuatlives	1	3	3
Adapted Writing Paper	0	1	2
Graphic Organizers	2	2	2
Pencil Grips	2	0	3
Other	1	0	0

Effectiveness of Resources and Materials

The teachers responding in regard to Other Health Impairment had two different responses. One noted that graphic organizers and rewards were most effective for them. The other responded that "lots of patience and redirection" was best for them. The individuals concerned with Specific Learning Disability for this survey, two agreed that manipulatives were the most effective resource, while one preferred graphic organizers for their student. For respondents who had chosen Autism Spectrum Disorders, their answers varied a little more from one another. One noted that manipulatives were most effective for their student, while another thought that graphic organizers helped their student the most. The third individual noted that pencil grips and tri-grip pencils were most effective for their student.

Other Resources

"What more do you feel you need to be successful in reaching the needs of your students in the classroom" This last question of the survey was an open-ended format. Of the two respondents concerning students with Other Health Impairment, one noted that "work on self esteem and coping skills" was needed. The other teacher simply requested "more strategies that might have helped with the boy". Teachers with Specific Learning Disability chosen as their area of focus had different responses that were all similar in nature. One individual noted "more time for small group instruction with me or another qualified adult". The second teacher requested a "smaller class size in order to spend more individualized time with students". The third responded that "additional support in helping these students with class assignments" was most needed. Similarly, the three individuals considering students with Autism Spectrum Disorders responded. One noted that "more time for one on one instruction" would be helpful, while a second stated "extra hands- assistants" were needed. The third teacher stated, "having more

support with having more students with needs than when I first started". Although it is not entirely clear, it is speculated that "needs" in the statement is referred to "disabilities" of students, and the statement is thus interpreted that this teacher feels that they require more support to meet the needs of students with disabilities at this point in their teaching career than they did when they first began teaching.

Summary

Teachers within the general education classroom that have taught a student identified with a disability within the past three years were provided a survey. Teachers considering students with Other Health Impairment noted that focus was a key characteristic of the disability, while those with students with Specific Learning Disability had characteristics that were more academically centered. Respondents with students with Autism Spectrum Disorders generally commented on the social skills of the student. Most teachers responding to the survey selected the majority of options in terms of strategies they have tried to meet the needs of their students, with only "chunking of assignments" being an option that received 0% response rate. Many teachers found small group or one-on-one instruction most effective for their students. In terms of materials, the responses were a little more widespread, and all choices had been tried by at least one respondent. In conclusion, when teachers were asked what more they could use to meet the needs of their students, 100% of teacher responses centered around time and/or support in the classroom to provide their students with instruction.

CHAPTER 5
HANDBOOK

Tips and Tools

for the inclusive elementary teacher

TEACHING STUDENTS WITH MILD TO MODERATE DISABILITIES IN THE GENERAL EDUCATION CLASSROOM

Tips and Tools

for the inclusive elementary teacher

TEACHING STUDENTS WITH MILD TO MODERATE DISABILITIES IN THE GENERAL EDUCATION CLASSROOM

Autism Spectrum Disorders

"IT IS NEVER TOO LATE TO EXPAND THE MIND OF A PERSON ON THE AUTISM SPECTRUM."

-DR. TEMPLE GRANDIN

What is it?

Autism Spectrum Disorders is a developmental disorder, impacting the way that students can process information. The most common way this impacts students is through their social and communication skills. ASD can also impact student behaviors. The term "spectrum" refers to the wide range of symptom impact on students.

What should I keep in mind?

Autism Spectrum does not impact any two students in the same way. Student behavior challenges are often intertwined with academics. While they may struggle in one small area, lack of communication skills and ability to cope emotionally can cause behaviors to interfere much more than a student without ASD.

A common misconception: Students with ASD present behaviors based on unwillingness to comply.

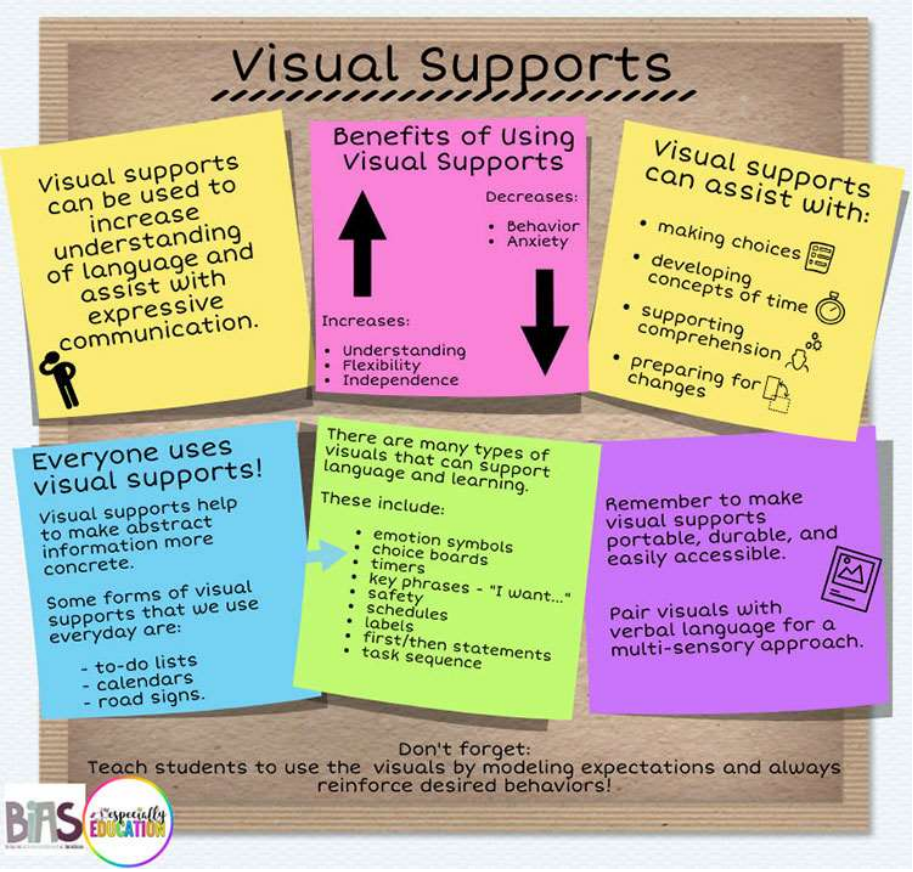
The Facts: Students with ASD often represent behaviors due to their deficits in communication skills, unable to express themselves in a socially appropriate manner

https://www.understood.org/en/school-learning/special-services/special-education-basics/conditions-covered-under-idea

What difficulties might I see from my students?	
COMMUNICATION	Difficulty understanding… • Feelings • Non-verbal cues • Figurative language
EXECUTIVE FUNCTIONING	Difficulty… • organizing • problem solving • keeping emotions under control
SENSORY	• Seeking out of sensory input • Avoidance of sensory input • Seemingly unaware of sensory inputs
MOTOR SKILLS	Difficulty with… • Fine motor skills • Gross motor skills
LANGUAGE	May struggle to… • Express themselves • Comprehend large amounts of language • Speak with an appropriate voice level • Follow conversations
ACADEMICS	• Reading Comprehension • Problem Solving • Writing Skills

Visual Supports

As adults, we use visuals in the form of checklists, calendars, and maps every day. Students with ASD can benefit tremendously from the use of purposeful visuals during their day. Visuals take abstract information



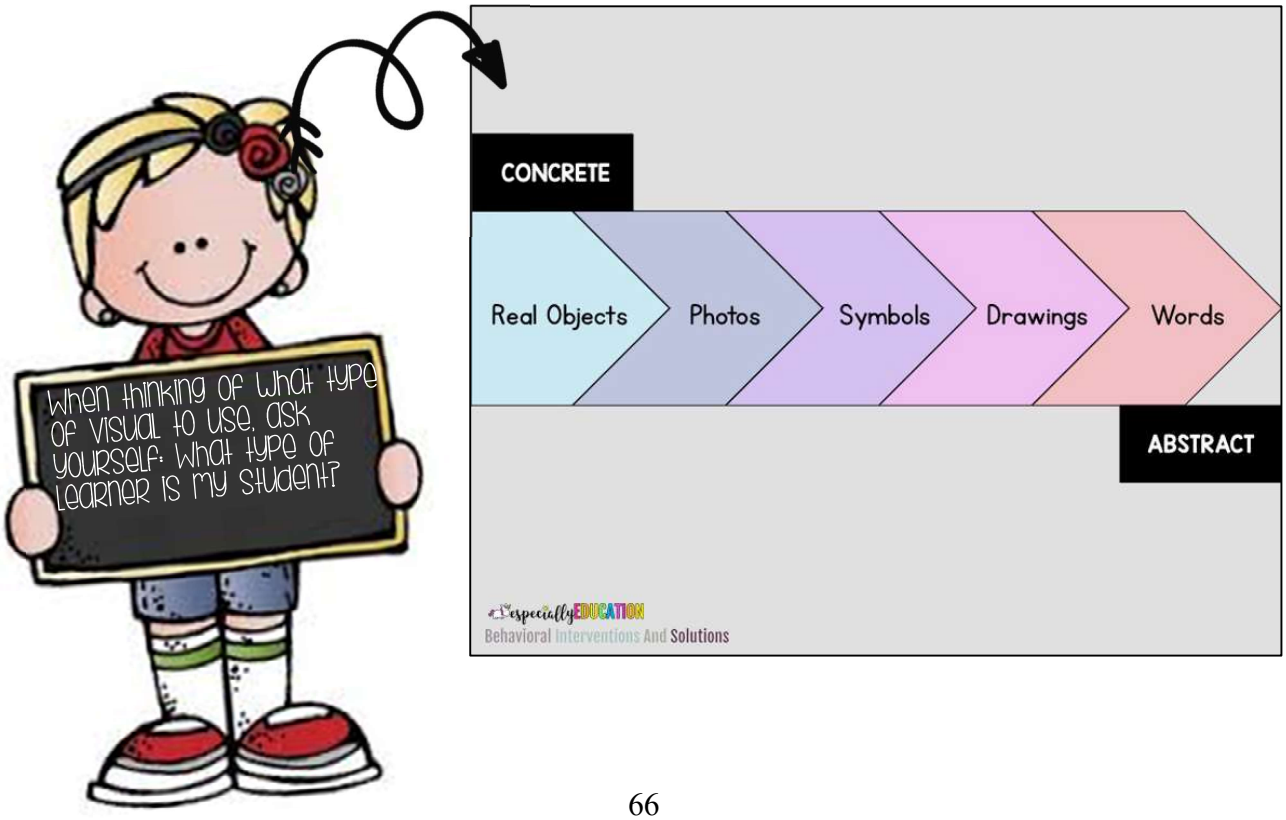
that students with ASD struggle to manipulate and turn that information into a concrete resource they are able to use. With the support of visuals, students with ASD are better able to make decisions, keep things organized, and communicate their wants, needs, or emotions. As a teacher, putting visuals supports in place for students can help to reinforce behaviors, or avoid unwanted behaviors altogether.

Visual Support Formats

Type	Description	Pros	Cons
Object	This type of visual support consists of the actual item or its 3D representation.	They are the most concrete form of visual support.	Objects can be difficult to organize, transport and maintain.
Photo	This type of visual support consists of a real life 2D picture representation.	Photos of a student's actual items can be taken, or similar items can be found using a Google image search.	It can be time consuming to take photos of a large collection of items.
Symbol	This type of visual support consists of cartoon or clipart type representations of objects.	There are often extensive libraries of images to choose from.	This type of image requires the student to be able to generalize, since it is not an identical match to the real item.
Drawing	This type of visual support consists of a sketch of an item or activity.	You can sketch something "on the fly". This can be useful in a situation in which you do not have a visual support available.	Drawings can be difficult for students to understand, especially ones that contain a black outline of the image.
Word	This type of visual support can be used on its own or paired with a picture.	This is the easiest form of visual to make and transport.	Words in isolation require the student to be able to read and understand print.

Behavioral Interventions And Solutions

Especially Education



Visual Schedules

Students with ASD can struggle greatly with planning and self-regulation. They may not know how to get started, what to do next, and may become unexpectedly upset if

something happens that they were not prepared for. Visual schedules can help to alleviate some of this stress for students with ASD and provide them a tool to be successful.

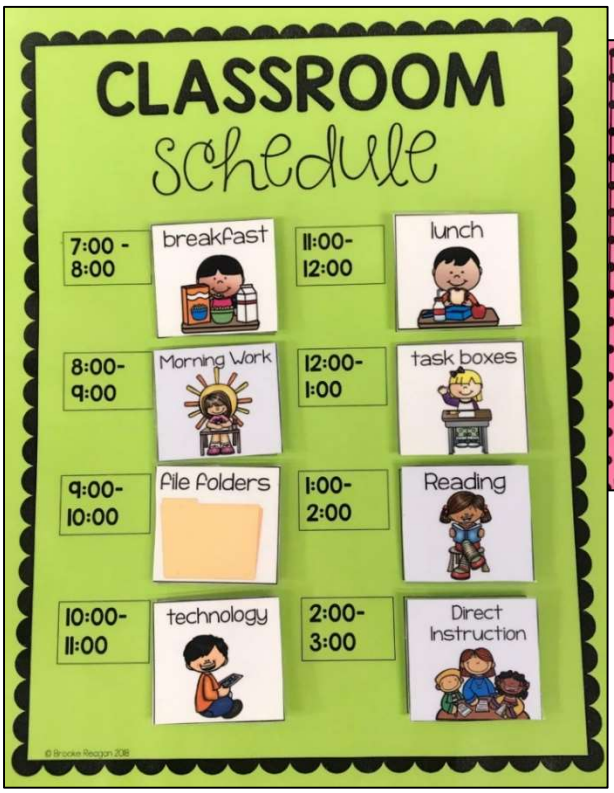
Visual schedules can be posted within a classroom to provide a general outline of the student's day. These schedules can also be tailored to the needs of students specifically and made very individualized to assist their unique struggles.

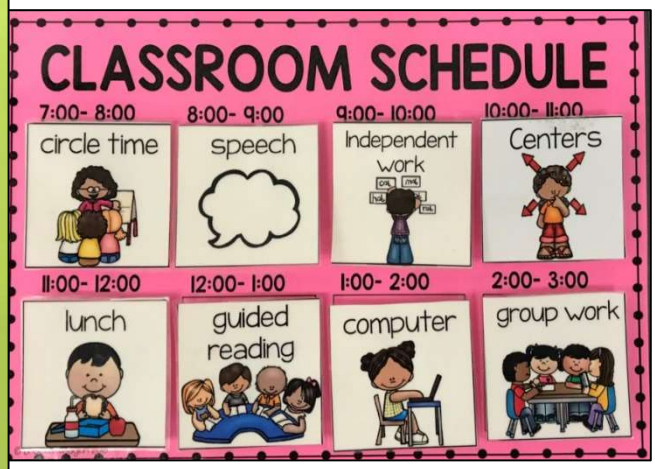
https://theautismvault.com/2020/02/how-to-use-visuals-to-help-with-html.html

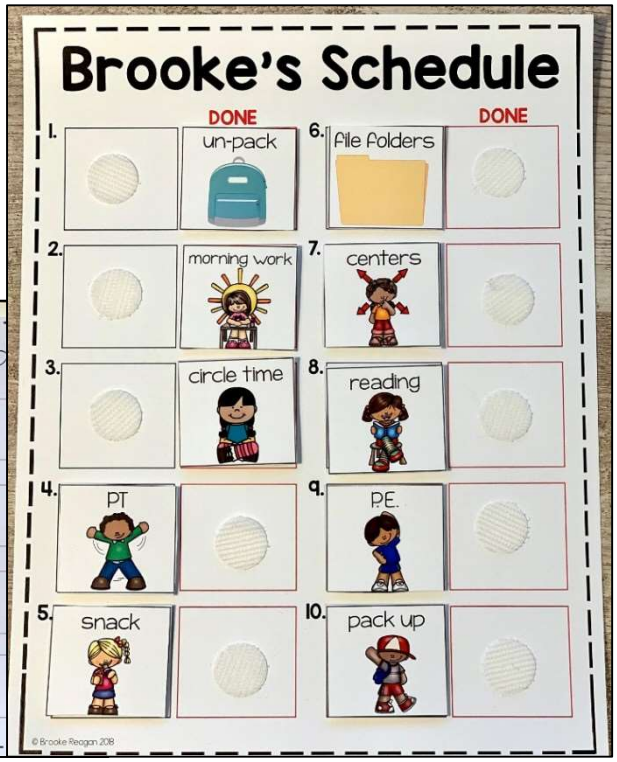
Visual Schedule Examples

"Flippable" student schedules allow students to not only see daily tasks but to then check them off, closing the flap when the task is finished.

Example set-ups of personal daily student schedules.







http://brookereagansclass.blogspot.com/

MY DAILY schedule

:		:	
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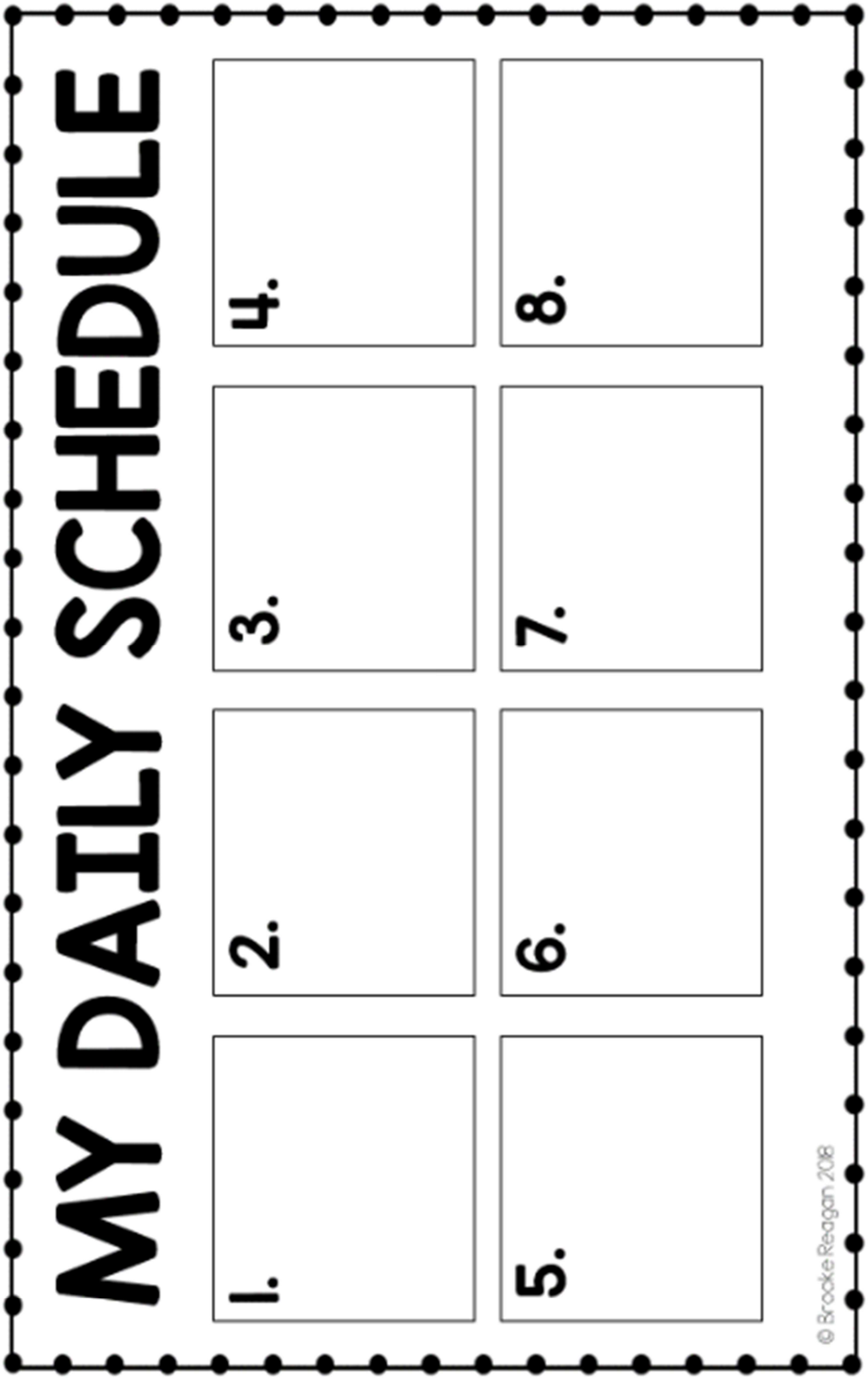
:		:	

http://brookereaganclass.blogspot.com/



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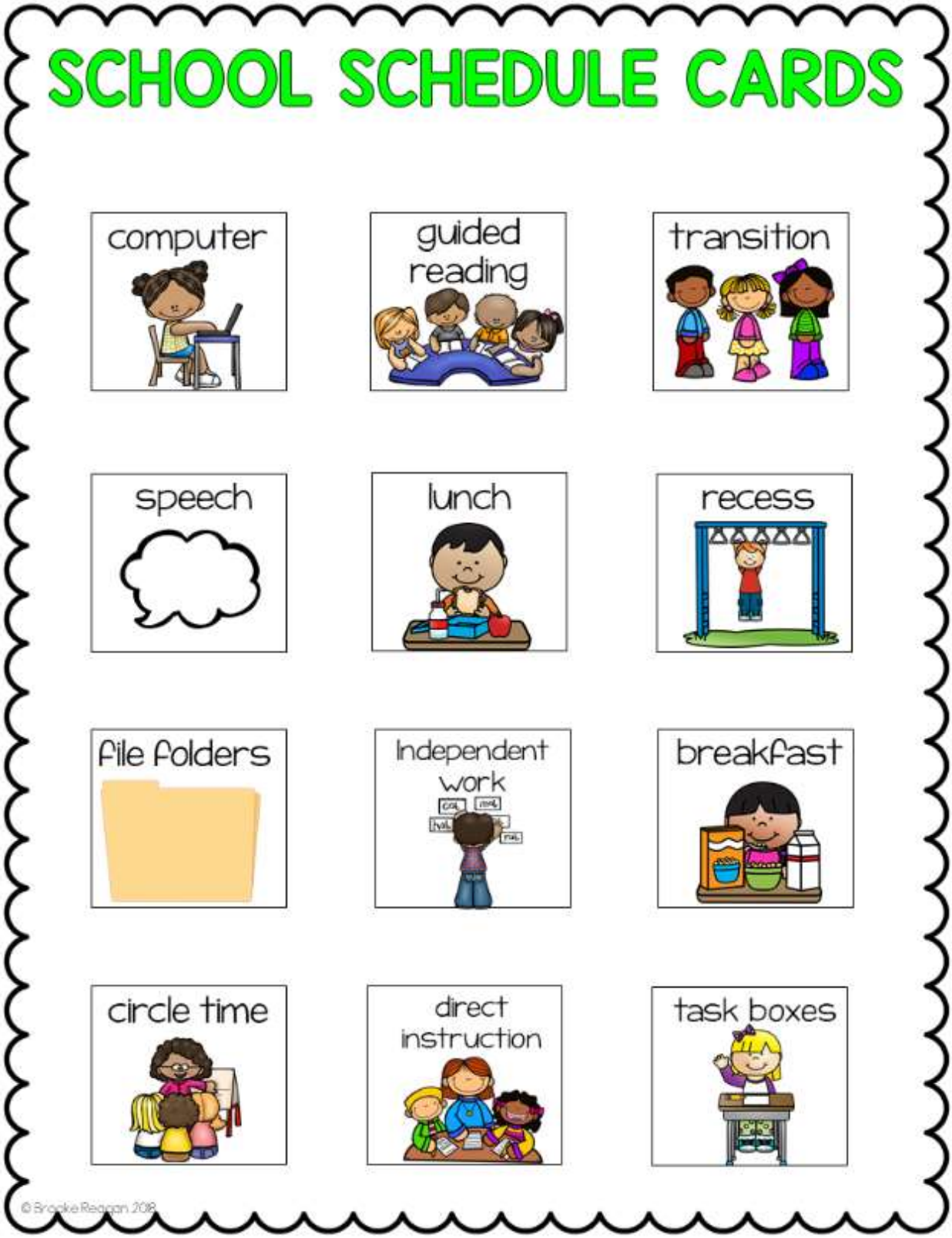

http://brookereagansclass.blogspot.com/

SCHOOL SCHEDULE CARDS

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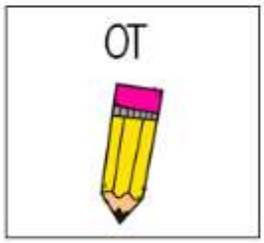
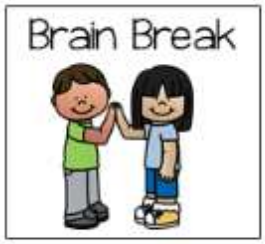
SCHOOL SCHEDULE CARDS





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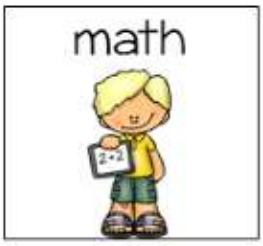
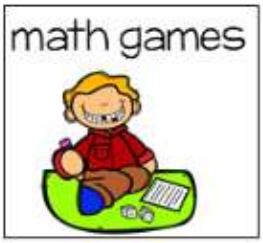
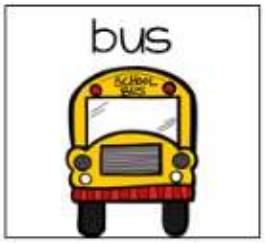
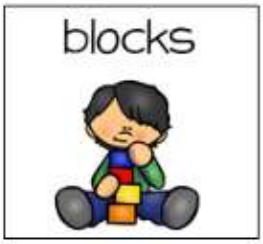
SCHOOL SCHEDULE CARDS









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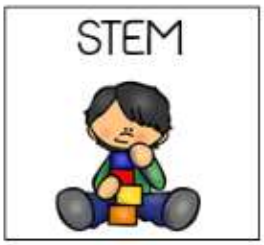
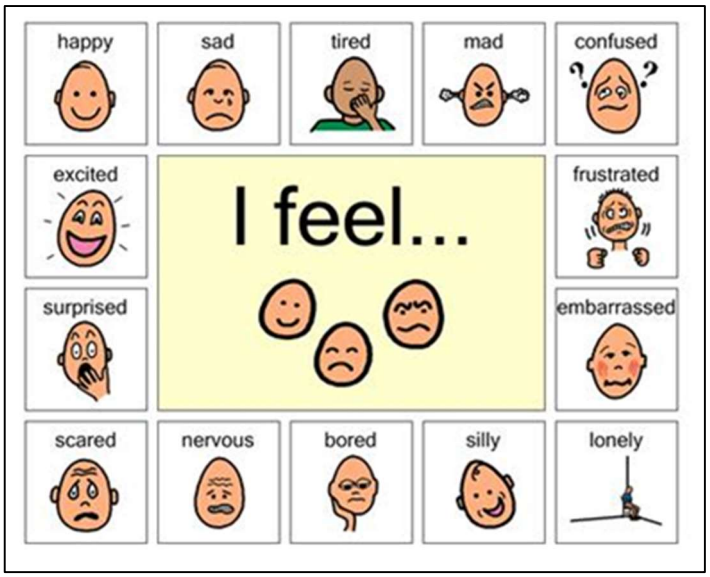


http://brookereagansclass.blogspot.com/

Communication

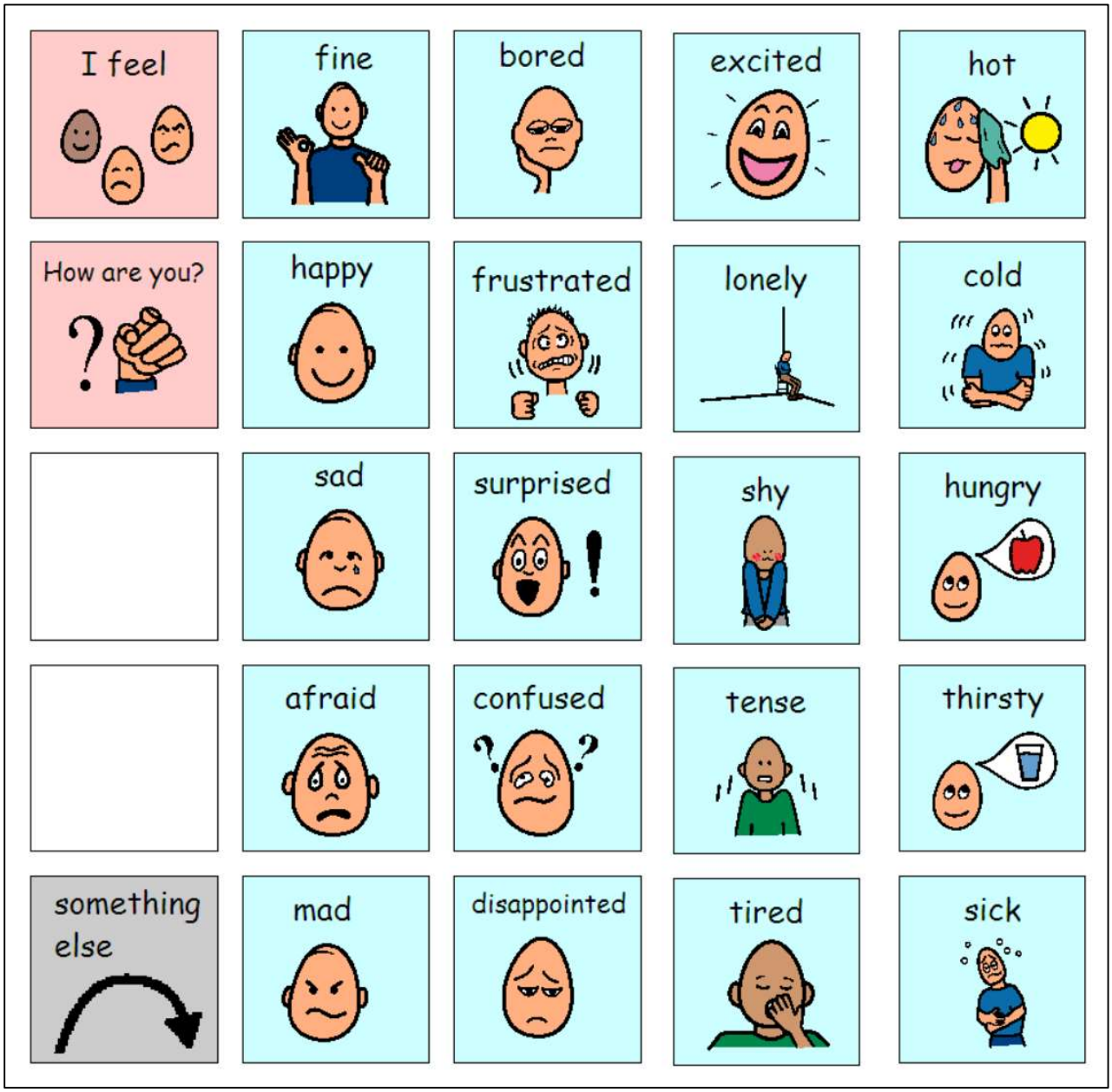
Students with ASD may struggle to communicate their emotions, wants, and needs, or may be completely non-verbal. Use of communication visuals can help ease this deficit and enable students to communicate more effectively with their teachers and peers.



Communication visuals can also enhance student's understanding of spoken language. Students with ASD are easily overwhelmed by large amounts of language Using visuals to communicate what we as teachers need them to do eliminates the need for language interpretation and provides the student with a concrete visual of their expectation.

https://www.asha.org/public/speech/disorders/Autism/

Visual communication boards

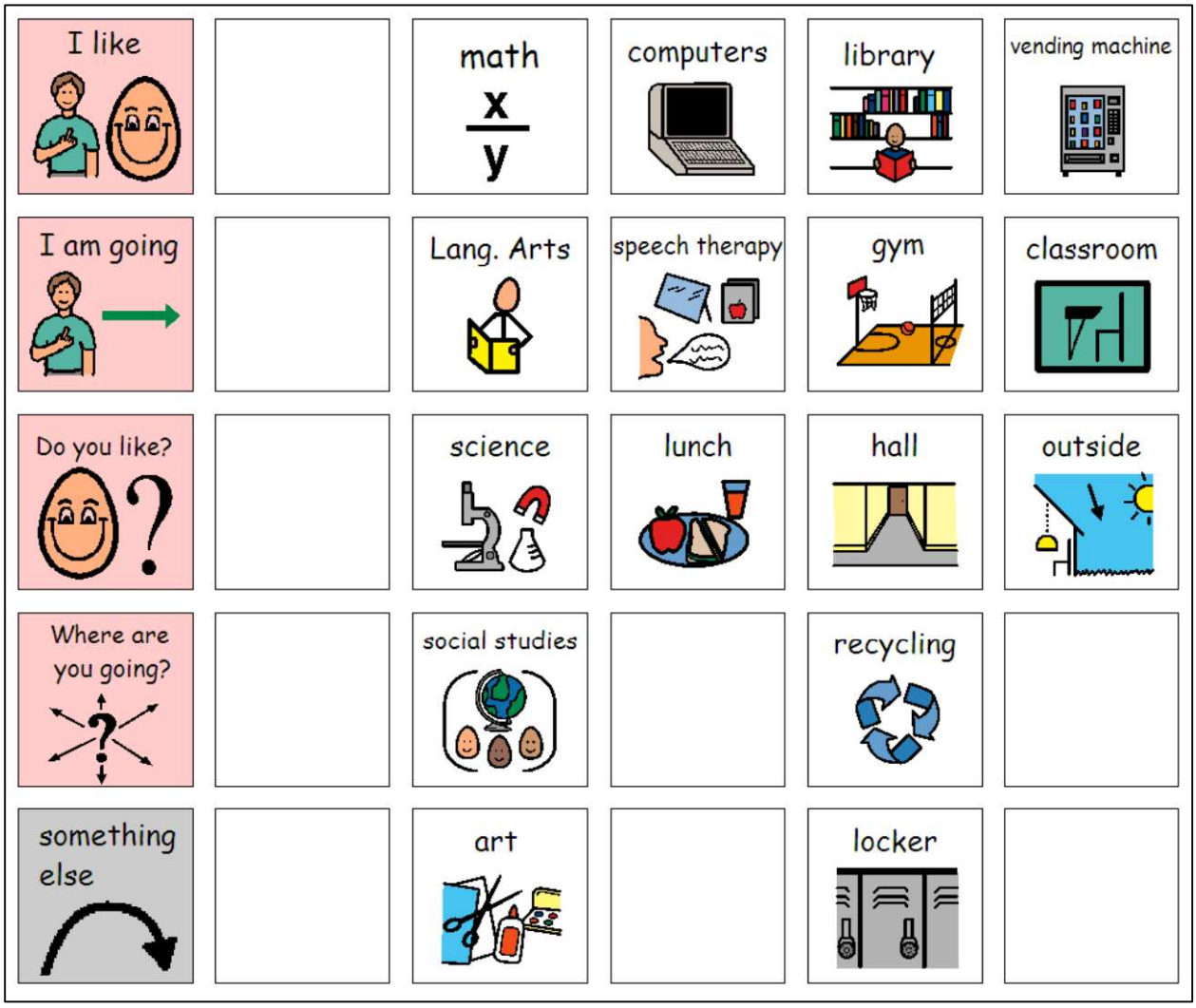


http://www.noodlenook.net/free-communication-boards-autism/

Visual communication boards

http://www.noodlenook.net/free-communication-boards-autism/

Visual communication boards



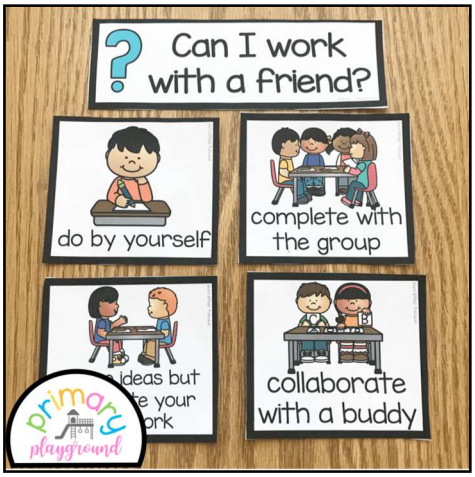
http://www.noodlenook.net/free-communication-boards-autism/

Communication and Behavioral Cue Cards

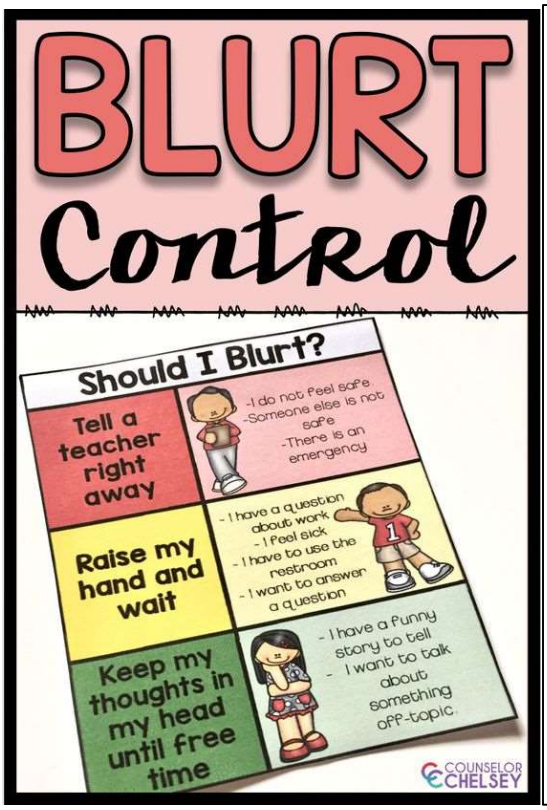
Instructions for Making Ringed Cue Cards:

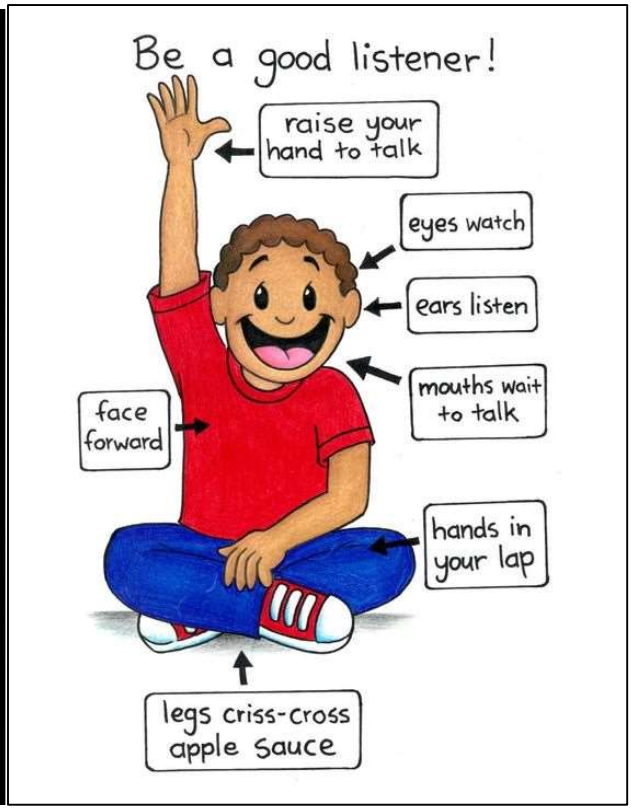
1. Copy and Print card pages (cardstock or heavy paper recommended)
2. Laminate Whole Card (or cut out card and use wide clear tape to preserve/protect card)
3. Cut out with tabs
4. With a hole puncher, punch out the holes on the upper left circles on the cards
5. Place Cards in order onto a metal ring & add to a lanyard or key chain
6. Keep within reach & use as needed!

Visual Checklists and Expectations



Visual Checklists and Expectations





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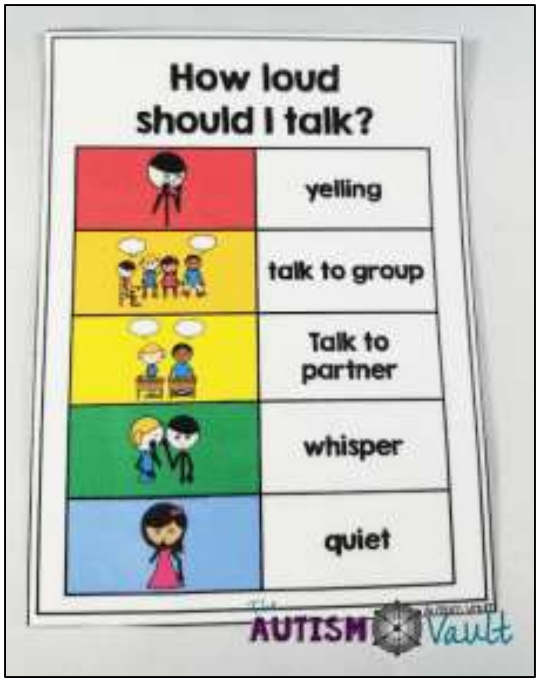
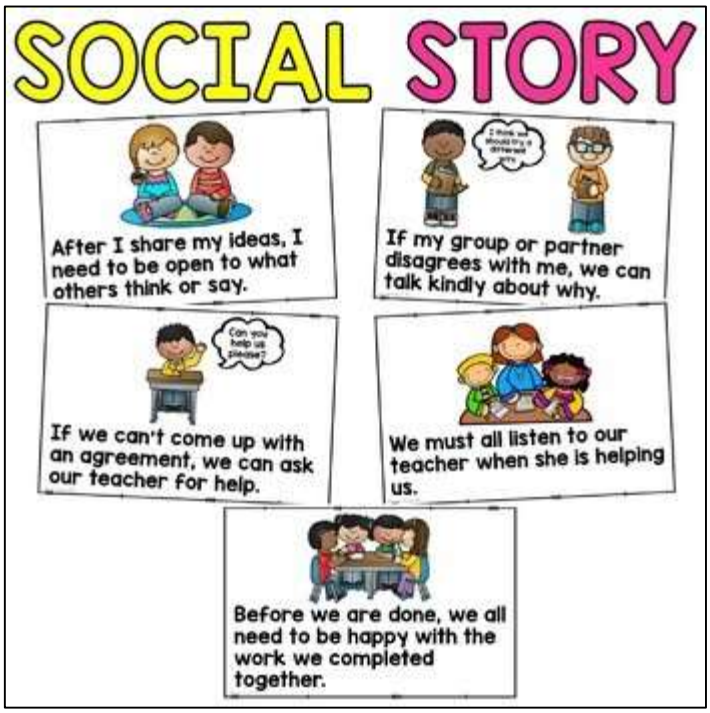


Social Narratives

Social Stories™ were created by a teacher named Carol Gray in 1991. She worked with students with Autism Spectrum Disorder. These narratives are short, simple stories that explain social behaviors, expectations, and routines to students with ASD so that they are able to better understand and prepare for situations in which they will be involved.



Students with ASD often struggle to pick up on social cues such as body language, facial expressions, gestures, or eye contact. Social scripts present social expectations in explicit language to help students learn to pick up on things they might not naturally. These stories are provided in a proactive and preventative way and are gradually faded out once the student learns the social behavior without prompting.

Image sourced from Google Images

https://raisingchildren.net.au/autism/therapies-guide/social-stories

Make Your Own Social Narrative

Here's a quick guide to creating social stories with your students:

1. Think about which social issues are causing the MOST disruption in your classroom right now.
2. Write down what the problem is and invite an open discussion with your students to gather specific details. Brainstorm and record ideas.
3. Validate your students' feelings when they are expressed, and then discuss the desired and expected behavior. Be sure to explain the reason for rules, such as safety or consideration for another student's learning.
4. Turn your brainstorming notes into a "story" in either first or third person. For example: "When I am walking in the hallway it might be hard to keep my voice quiet. It's important to be quiet so I don't interrupt other students. When I want to shout in the hall, I can use self-talk to remind myself that others are working. My teacher and friends will be happy if I am quiet in the hallway."
5. You can turn the story into a poster or make it into a book with one sentence on each page.
6. Invite students to illustrate the books! Illustrations are particularly important for younger students.

https://whimsyworkshopteaching.com/ideas/teaching-social-skills-social-stories/

I Wash My Hands

I Have Wash My Hands Story

Directions: Print file and assemble into file folder. Glue the title, I Wash My Hands on the front cover of the file folder. Glue the following page (I Wash My Hands) to the interior of the file folder. Laminate the entire file folder for durability. Read the folder story to the student who has difficulty with the target behavior each day, before class begins. Reread the story to the student, when the student fails to perform the desired behavior.

Original Clipart by: gifart.com

I Wash My Hands

There are times when my hands get dirty.

It is a good idea to wash my hands when they get dirty. This helps wash the germs off of them and keeps me healthy.

It is a good idea to wash my hands after I use the toilet, after I have been playing outside, and always before I eat. This helps me have clean hands, and keeps me from getting sick.

I Look When People Talk

I Look When
People Talk

Directions: Print file and assemble into file folder. Glue the title, I Look When People Talk on the front cover of the file folder. Glue the following page (I Look When People Talk) to the interior of the file folder. Laminate the entire file folder for durability. Read the folder story to the student who has difficulty with the target behavior each day, before class begins. Reread the story to the student, when the student fails to perform the desired behavior.

Original Clipart by: gifart.com

I Look When People Talk

I listen with my ears, when people talk to me.

It is also a good idea to look at people with my eyes when they talk to me. This helps people know that I am listening to what they are saying.

When a person talks to me, I will try my best to look at her face, or eyes. This lets the person know that I am hearing her and interested in what she is saying. People like it when they know that I am listening.

I Say, "Please"

I Say Please
Folder Story

Directions: Print file and assemble into file folder. Glue the title, I Say Please, on the front cover of the file folder. Glue the following page (I Say Please) to the interior of the file folder. Laminate the entire file folder for durability. Read the folder story to the student who has difficulty with the target behavior each day, before class begins. Reread the story to the student, when the student fails to perform the desired behavior.

Original Clipart by: gifart.com

I Say Please

Sometimes I ask people for things that I need or want. When I ask a person for something, or for permission to do something, it is polite to say, "Please."

For example, when I ask for a snack, it's a good idea to say, "May I have a snack please?" If I would like permission to go to the library, a polite way to ask is to say, "May I go to the library, please?"

When I ask a person for something, or for permission to do something, I will try my best to say, "Please." When I say, "Please," it shows people that I am polite and have good manners.

I will not call out.

I will not call out in class. When I call out, I interrupt my teacher and classmates. I keep my friends from learning.

During class when I want to talk, I need to raise my hand. I will wait for my teacher to call on me. Then I can speak.

When my teacher calls on me, it is my turn to speak. I can ask my question or share my answer.

Sometimes it is not a good time to talk. My teacher will not call on me. I can write my idea or question instead or wait until it is okay to talk.

When I wait to speak instead of calling out, I am polite. This makes my teacher and classmates happy.

SOCIAL STORY

WHEN I GET FRUSTRATED...

2

Sometimes when I am frustrated or upset, I make choices that can hurt other people's bodies and feelings. But I can make good choices!

3

Instead of yelling, I can use my words and say "I'm frustrated right now".

4

Instead of hiding or running away, I can use my fingers to count to 10.

5

Instead of kicking someone or something, I can walk away.

What else can you do when you get frustrated?

8

7

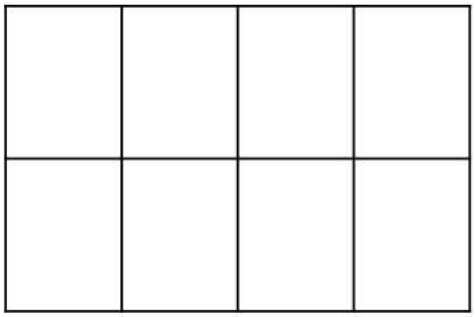
Instead of pushing someone, I can take a deep breath.

9

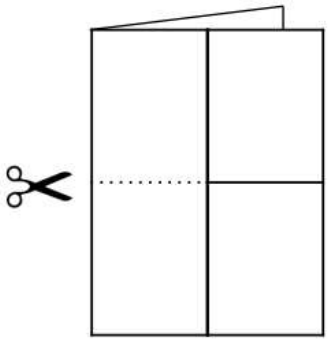
Instead of biting someone, I can squeeze my body or my hands together.

HOW TO FOLD THE MINI BOOK:

1. Fold along all lines

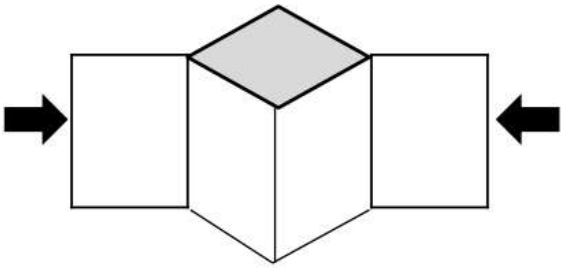


2. Fold in half and cut along dotted line, as shown below

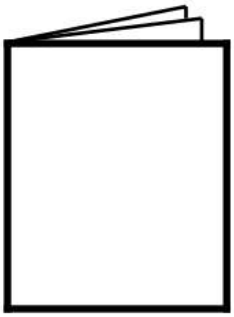


3. Open and fold lengthwise

4. Push in on both ends



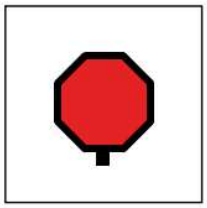
5. Fold the book and close



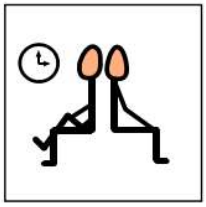
Fire Drill

theautismhelper.com

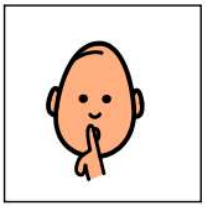
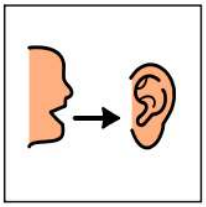
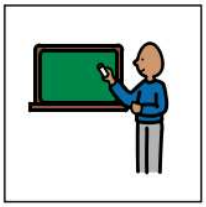
It's a fire drill. The alarm is on.



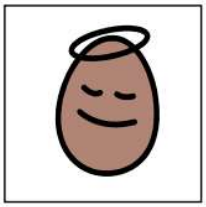

Stop your work and line up at the door.


Go outside and wait with your class.

No talking. Be quiet. Listen to the teacher.




When I have good behavior at the fire drill, my teacher is happy.

What is interrupting?

When people are talking, they like to finish what they are saying.

When I talk while somebody else is already speaking, that is interrupting.

Why shouldn't I interrupt?

People might feel annoyed or get angry at me if I interrupt them. They might not want to have a conversation with me if I always interrupt them.

Interrupting makes people feel like their thoughts and ideas are not important.

What if I need to interrupt?

I might sometimes need or want to interrupt someone who is talking.

Interrupting is okay if there is an emergency.

I shouldn't interrupt because I don't like what someone is saying or I think my thoughts are more important.

A polite way to interrupt is to get the person's attention and then WAIT for them to look at me so that I can speak.

When they look at me, it means that they have given me their attention and I can tell them something.

How can I interrupt?

I can get the person's attention by:

Saying the person's name

Waiting for a pause in the conversation

Waiting for the person to make eye contact

Touch or gently tapping the person on the shoulder or arm

Raising my hand

When the person gives me their attention, I can speak

What do I say?

After I have gotten the person's attention, I should be polite. I can say:

'Excuse me...'
'Can I please interrupt...?'
'May I please ask you something...?'
'Do you mind if I say something...?'

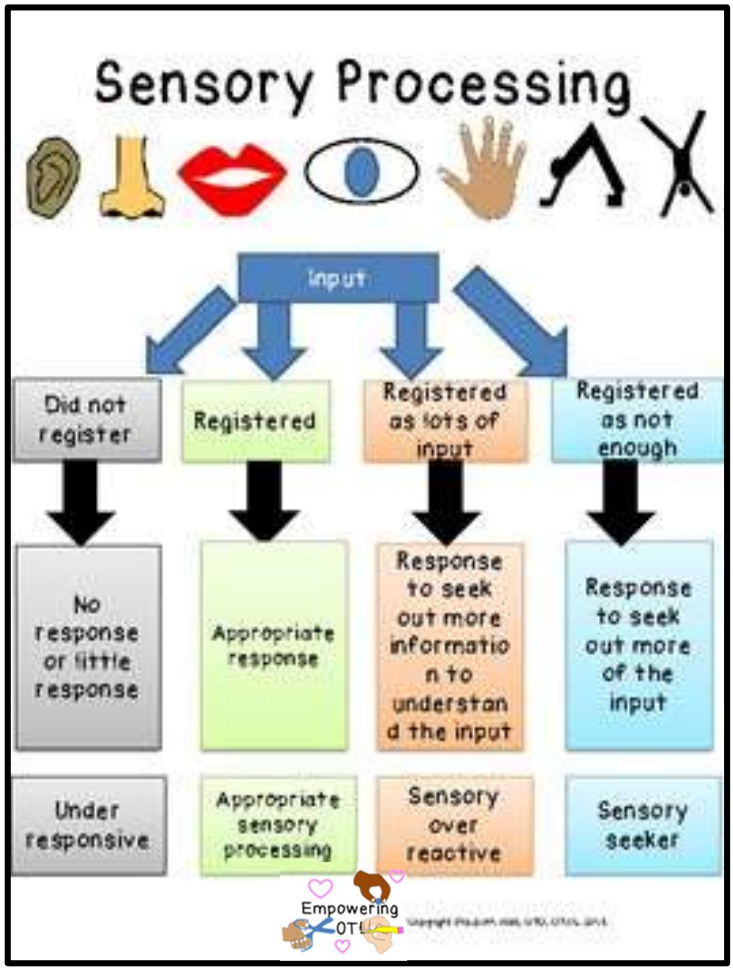
The person will then let me know if I can speak.

Sometimes the person might say 'no', and ask me to wait. I have to keep my ideas in my thought bubble.

I should respect the person if they ask me to wait, and just wait until I can share my thoughts.

Sensory Processing

Students impacted by sensory issues struggle to manage information that is received through the senses. While also known as stand-alone disabilities of their own (such as sensory processing disorder or sensory integration disorder), students with ongoing disabilities such as Autism Spectrum Disorders or ADHD can be impacted through sensory difficulties as well. Students that struggle in this area may be overloaded by or under-sensitive to stimulus from:



- Visual (sight)
- Auditory (hearing)
- Olfactory (smell)
- Gustatory (taste)
- Tactile (touch)
- Vestibular (balance and movement)
- Proprioceptive (muscles and joints)

https://hes-extraordinary.com/the-sensory-spectrum-and-sensory-processing-disorders

Description of the Sensory Systems

System	Location	Function
Tactile (touch) 	Skin—density of cell distribution varies throughout the body; areas of greatest density include mouth, hands, and genitals	• provides information about the environment and object qualities (touch, pressure, texture, hard, soft, sharp, dull, heat, cold, pain)
Vestibular (balance) 	Inner ear—stimulated by head movements and input from other senses, especially visual	• provides information about where our body is in space, and whether or not we or our surroundings are moving; tells about speed and direction of movement
Proprioception (body awareness) 	Muscles and joints—activated by muscle contractions and movement	• provides information about where a certain body part is and how it is moving
Visual (sight) 	Retina of the eye—stimulated by light	• provides information about objects and persons; helps us define boundaries as we move through time and space
Auditory (hearing) 	Inner ear—stimulated by air/ sound waves	• provides information about sounds in the environment (loud, soft, high, low, near, far)
Gustatory (taste) 	Chemical receptors in the tongue—closely entwined with the olfactory (smell) system	• provides information about different types of taste (sweet, sour, bitter, salty, spicy)
Olfactory (smell) 	Chemical receptors in the nasal structure—closely associated with the gustatory system	• provides information about different types of smell (musty, acrid, putrid, flowery, pungent)

Source: *Asperger Syndrome and Sensory Issues: Practical Solutions for Making Sense of the World* (p. 5), by B. S. Myles, K. T. Cook, N. E. Miller, L. Rinner, and L. A. Robbins, 2000. Shawnee Mission, KS: AAPC.

Tactile (Touch)

Your sense of touch is called the tactile system. It's how we feel all touch sensations, including vibrations, temperature, textures, and pain.

Receptors in our skin all over our bodies send signals to our brains, telling us when we've touched something, and what we've touched.

When a student's tactile system is not working well, they can struggle filter out irrelevant tactile input and respond to touch sensations appropriately.

Students may struggle with sensory discrimination or perception- their ability to interpret or give meaning to sensory input. They also may be oversensitive to sensations, or contrastingly under-responsive. These can cooccur as well, with students being very sensitive to some sensations and under-responsive to others.

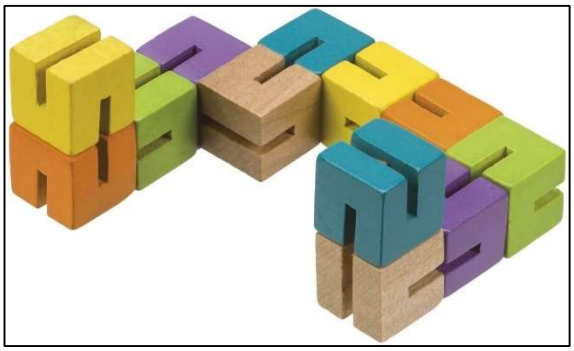
Image sourced from Google Images https://hes-extraordinary.com/the-tactile-system

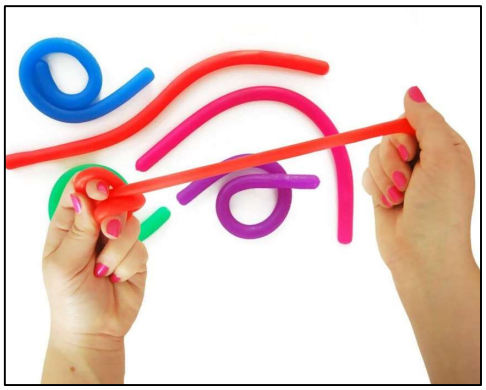
Tactile Activities

Sensory balls can be used for developing tactile senses and gross motor skills.

http://www.thesensoryspectrum.com/sensory-tactile-toys-tools/

Different types of hand fidgets can be used to develop tactile senses. Some are puzzles to solve, others have fun textures and can be stretched / squeezed during play.





http://www.thesensoryspectrum.com/sensory-tactile-toys-tools/

Playdough

Playdough is a great tool for students who need tactile sensory play. Playdough can be used to squeeze, roll into shapes, cut, and mold. Playdough is inexpensive, and there are several different recipes for homemade playdough as well. Playdough is a great tool to integrate into the classroom setting.

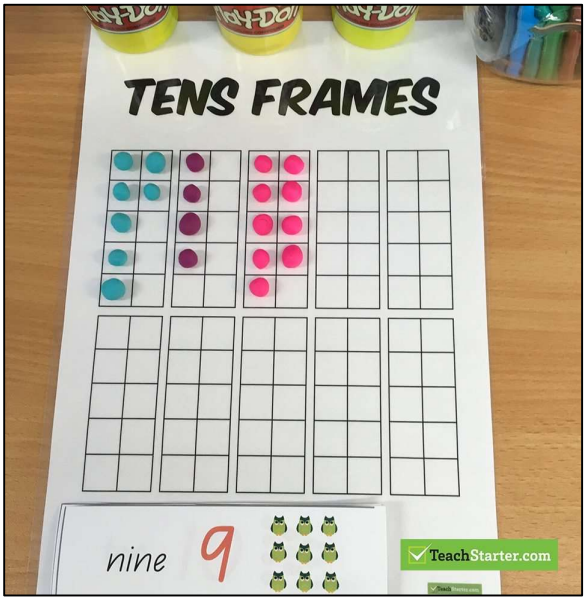
https://www.theottoolbox.com/toys-to-improve-tactile-sensory/

10 Ways to Integrate Playdough Play Into the Classroom

Learning Letters

Letter mats are used for this activity. Students roll playdough out into the shape of the letters they are learning.

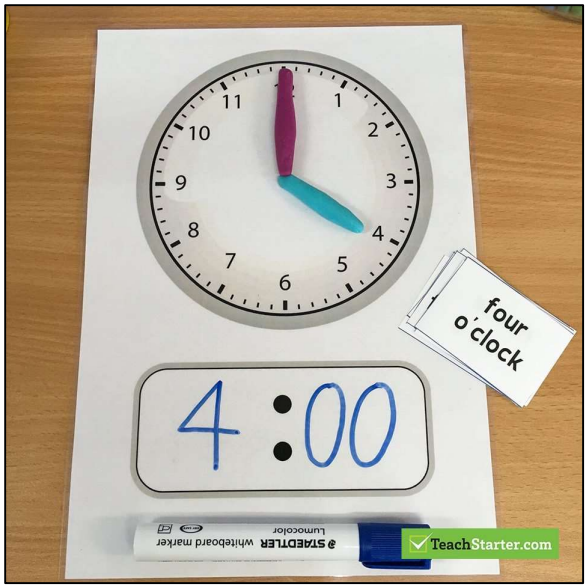
Ten Frame Activity



Blank ten frames and number cards are used for this activity. Students flip over a flashcard and create that number on a tens frame using small balls of playdough. They then place their chosen flashcard to the bottom of the pile, pick another flashcard, repeat.

https://www.teachstarter.com/au/blog/10-ways-use-playdough-classroom/

Telling Time



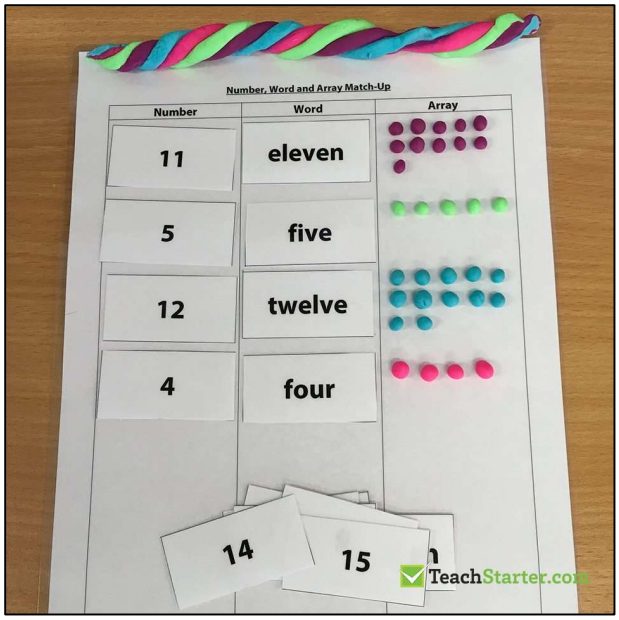
Students flip over a flashcard and create the hour and minute hand using playdough to show the time displayed on their flashcard. They then place their chosen flashcard to the bottom of the pile, pick another flashcard, repeat.

CVC Word Practice

Laminated mats are used for this activity. Students flip over a flashcard and create the word using their playdough to form the letters. Then, a dry-erase marker is used to write the word. Last, students place their chosen flashcard to the bottom of the pile, pick another flashcard, repeat.

https://www.teachstarter.com/au/blog/10-ways-use-playdough-classroom/

Number, Word, & Array



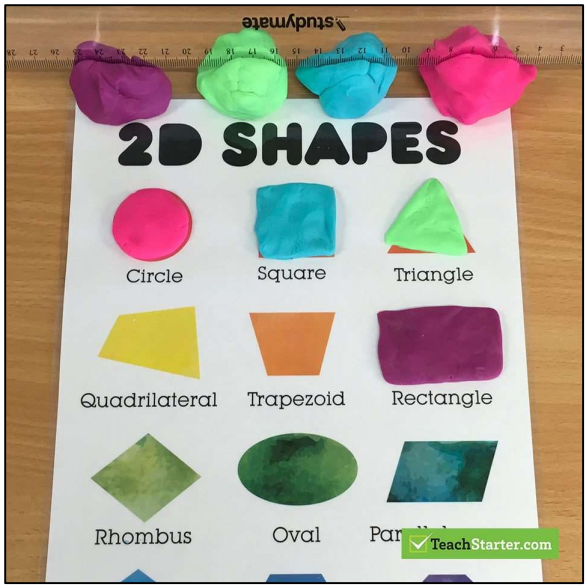
Students flip over a digital number and number word flashcard and place them in the appropriate column. Then, using playdough, students create an array for the number. Last, students place their chosen flashcards to the bottom of the pile, pick another flashcard, repeat.

Place Value Activity

Played in pairs: Each student picks two number flashcards and decides which number will be the ones and which will be the tens; cover that number with playdough. Then, the partner repeats with different numbers. The winner could be who gets three in a row, who gets the highest sum, or any other criteria you choose!

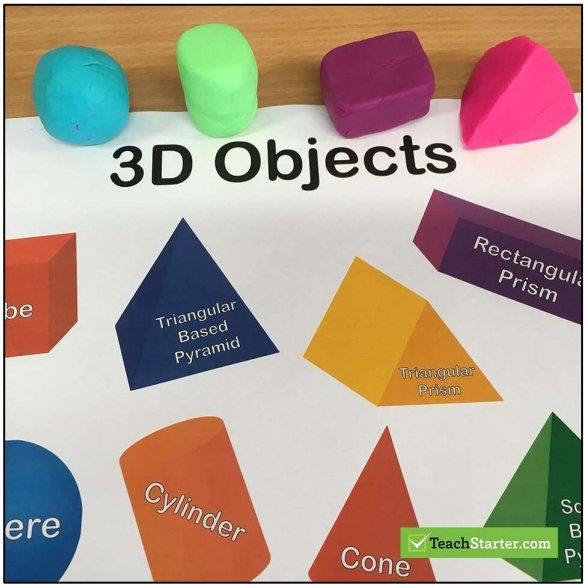
https://www.teachstarter.com/au/blog/10-ways-use-playdough-classroom/

2D Shapes



Students use a laminated mat with pictures of two-dimensional shapes. Students mold the playdough to match the shapes. These shapes could then be used to find area, perimeter, or for other activities!

3D Objects



Students use a laminated mat with pictures of three-dimensional shapes.

Students mold playdough to match the three dimensional objects. These objects could then be used to count faces, vertices, or for other activities!

https://www.teachstarter.com/au/blog/10-ways-use-playdough-classroom/

Fractions

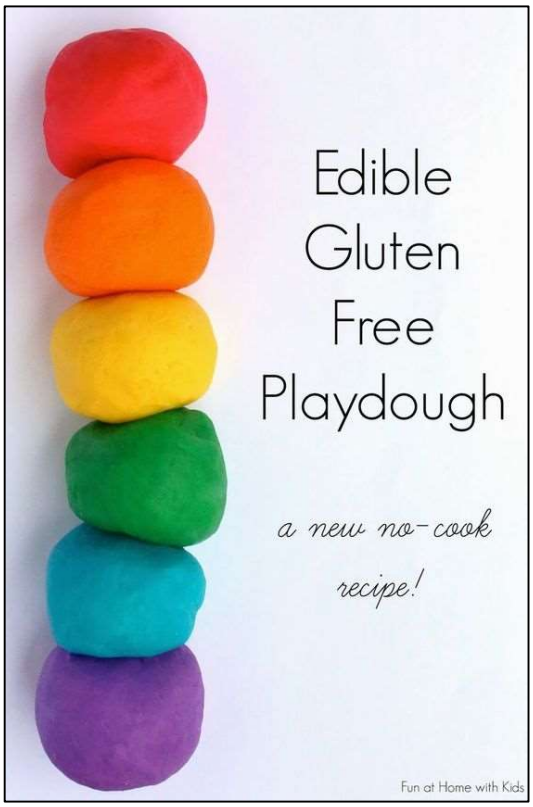
Students use a cookie cutter and a ruler to create different fractions with their playdough. Students could use flashcards and create, or create fractions as you call them out!

Sight Words

Laminated mats are used for this activity. Students flip over a flashcard and create the word using their playdough to form the letters. Let them get creative and use a variety of colors! Last, students place their chosen flashcard to the bottom of the pile, pick another flashcard, repeat.

https://www.teachstarter.com/au/blog/10-ways-use-playdough-classroom/

Make Your own Playdough Recipe



To make your own, you will need:

- Baby rice cereal
- Vegetable Oil
- Cornstarch
- Unsweetened Applesauce (you can substitute water)
- Food coloring (optional)

In a bowl combine 1 cup of Baby Rice Cereal and 1 cup of Cornstarch. Mix well. Add 1/2 cup unsweetened applesauce (for reference those little lunch sized applesauces happen to be 4 oz = 1/2 cup) and 3 Tablespoons of vegetable oil and any food coloring (if desired). Mix well. I find that kneading by hand is pretty effective, though you could also use a Kitchenaid. The dough should be kneaded (or mixed) until it is smooth and pliable. If it is at all sticky, slowly add more Baby Rice Cereal taking care to knead it completely in before deciding you need more. If the dough is dry and cracking, run your hands under the faucet and knead the dough with your now wet hands.

The dough will keep for several days in the refrigerator. Store in a sealed container or bag and please check for mold or a yucky smell before using it each time (how long it takes to spoil will depend on how clean your kiddos hands are and how warm it is where you live, etc.). You will find that the dough is stiffer when it first comes out of the refrigerator - if you knead it to warm it up, it will soon be back to its normal pliable self! If necessary - wet your hands with some water and knead that in.

Sensory Bins / Tables

Sensory bins or tables are a great way for students to play and explore in a tactile way. They are easy to put together, and there are endless possibilities for the types of bins that you can create. Bins can be themed by season or holiday, used to sort, search, fill, pour, and so much more!

Image sourced from Google Images https://www.growingajeweledrose.com/2013/01/sensory-bins.html

SENSORY TABLE MATERIAL IDEAS

FILLERS +	MIX-INS +	TOOLS
sand	plastic dino fossils	paint brushes
rice	washers, nuts, bolts	magnetic wands
dried beans	magnetic letters	small sorting containers
black beans	plastic bats or mice	training chopsticks
split peas	silk flowers with short stems	small pots and spoons
lentils	plastic coins	piggy banks
uncut straws	plastic cheese containers	scissors & sorting containers
feed corn	toy tractors and wagons	small scoops and funnels
cut up straws	pipe cleaners	muffin tins
popcorn (unpopped)	cardboard tubes	scoops and small bowls
aquarium rocks	construction vehicles	small scoops and spoons
water beads	plastic frogs	foam lily pads
water	pool noodle slices	water pitchers and cups
soapy water	baby dolls	sponges and wash cloths
water with icebergs*	plastic penguins	tongs
straw/hay	farm animals and fences	toy barn
dry pasta	toy vegetables	toy pots & pans, spatulas
buttons	pipe cleaners	ice cube trays
bottle caps	pom-poms	color sorting containers
cotton balls	plastic snowflakes or erasers	plastic jars and lids
bird seed	birds	buckets and small scoops
oatmeal	plastic apples	pie pans and large spoons
snow (real if you have it)	plastic polar animals	buckets, shovels, gloves
corn meal	gems or vase fillers	rakes, scoops, strainers
mixed dried beans	magnetic numbers	cups, spoons, ice cube trays
silk fall leaves	plastic acorns or pumpkins	rakes, tongs, baskets
Easter grass	Easter eggs, small chicks	egg cartons, small baskets
scrap paper	scissors	sorting containers
shredded paper	Little People	wood blocks
organic potting soil	peat pots and marbles	trowels or spoons

*Make icebergs by freezing water in large containers

FILLERS +	MIX-INS +	TOOLS
oiled cooked spaghetti	--	tongs and bowls
beads	ABC beads & pipe cleaners	small sorting containers
rubber bands or hair ties	cardboard tubes or bottles	--
Hawaiian leis pulled apart	pom-poms	color containers
sawdust	plastic bugs	bug containers & tongs
baking soda	small containers of vinegar	eye droppers
fresh herb stems	scissors	magnifying glasses
shredded wrapping paper	jingle bells	spoons & small containers
plastic poker chips	containers with slots in the lids	tweezers
shaving cream	foam blocks	paint brushes
yarn	scissors	oven rack (for weaving)
sticks	large piece of Styrofoam	mallets
pom-poms	cardboard cones	ice cream scoops
feathers	toy birds & craft store nests	magnifying glasses
salt	plastic polar bears	glow sticks
toy cars	bars of soap	spray bottle and toothbrushes
balls of foil	toy rockets	glow bracelets
pumpkins	golf tees	toy hammers or small mallets
clothespin clips	pieces of felt	oven rack
pieces of bubble wrap	jingle bells	small boxes
large cardboard box	rolls of masking tape	markers

Example Sensory Bins / Tables

https://www.growingajeweledrose.com/2013/01/sensory-bins.html

https://www.growingajeweledrose.com/2013/01/sensory-bins.html

https://www.growingajeweledrose.com/2013/01/sensory-bins.html

Sensory Boards

Sensory boards are a fun way for students to feel many different textures and objects all in one place.

For your **board**, you could use large pieces of poster board, oak tag, cardboard, wood, plywood, or felt. What you choose to use will be dependent upon how heavy the items are that you want to adhere to the board.

Adhesive can be determined by the size and weight of the items. You can use Elmer's glue, hot glue, Krazy glue, craft adhesive, or Gorilla glue.

There are tons of different **items to use** when making your board. From household items to toys, the options are endless as long as they fit on the board!

You can choose to have a **theme** for your board, such as all things soft, all things red, all things squishy, or all things rough. You could also have a variety of items for students to explore.

https://teachinglittles.com/12-sensory-board-diy-ideas-for-busy-babies-and-toddlers/?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_tribes&utm_content=tribes&utm_term=803095196_33521652_697434

Proprioceptive (Body Awareness)

The proprioceptive system is the sense of our body's position in space. Sensory receptors in our joints, muscles, and skin work together to build body awareness. Temporary lapses in proprioception are developmentally appropriate. Many children go through quick growth spurts, making it hard for them to adjust to the new size and shape of their bodies.

Unfortunately, for students that struggle more significantly, the signs of proprioceptive input challenges are often mistaken for bad behavior.

Frequently, children who are too rough or hyperactive may be struggling with proprioceptive. Contrastingly, students who appear lethargic and clumsy may also be dealing with proprioception processing difficulties.

Image sourced from Google Images https://hes-extraordinary.com/how-does-the-proprioceptive-system-work

Proprioceptive Activities

Trampoline Jumping

Jumping Jacks

Running

Wheelbarrow Walk

Crab Walk

Hanging

Image sourced from Google Images https://yourkidstable.com/proprioceptive-activities/

Climbing

Stomping

Bouncing

Pogo Stick

Scooter board

Kicking

Image sourced from Google Images https://yourkidstable.com/proprioceptive-activities/

Crawling

Chewing

Drinking through a straw

Squeezing

Stretching

Push ups

Image sourced from Google Images https://yourkidstable.com/proprioceptive-activities/

Crawling

Squeezing

Body Sack

Yoga

Stretching

Push ups

Image sourced from Google Images https://yourkidstable.com/proprioceptive-activities/

Proprioceptive: Heavy Work Activities

Push

Pull

Carry

Dig

Rake

Shovel

Image sourced from Google Images https://yourkidstable.com/proprioceptive-activities/

Proprioceptive: Deep Pressure Activities

Hugs

Wrapped in blanket "burrito"

Weighted blanket

Weighted lap pad

Joint compressions

Wobble Cushion

**DEEP PRESSURE ACTIVITIES SHOULD BE PRACTICED UNDER THE CONSULT OF AN OCCUPATIONAL THERAPIST OR OTHER HEALTH PROFESSIONAL.

Image sourced from Google Images https://yourkidstable.com/proprioceptive-activities/

Vestibular (Balance / Motion)

The vestibular system is your sense of movement. Parts of the inner ear work to keep us balanced, coordinated, and aware of our body movements. The warning signs that something is off with the vestibular system are often mistaken as behavioral issues. It may lead to academic problems, issues with muscle development, and issues with attention.

The best vestibular input activities for kids are ones that involve a lot of movement. Students can generally find a way meet their needs themselves, but often in a way that is undesirable for the classroom environment. Planned activities at regular intervals throughout the day can prevent sensory seeking behavior at inappropriate times. An activity that is 5-10 minutes long every 1-2 hours is recommended for students.

Image sourced from Google Images https://hes-extraordinary.com/vestibular-input-activities

Vestibular Activities

Spinning

Rolling

Swinging

Dancing

Skating

Hopscotch

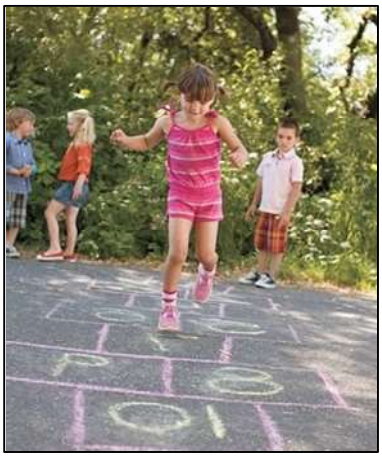


Image sourced from Google Images

https://hes-extraordinary.com/vestibular-input-activities

Jump rope

Tag

Stability Ball

Rocking Chair

Image sourced from Google Images https://hes-extraordinary.com/vestibular-input-activities

Visual (Sight)

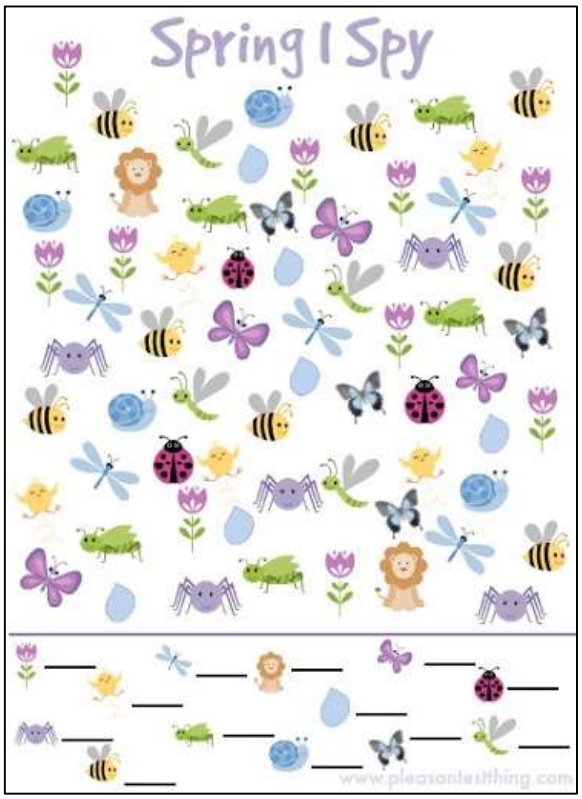
The visual system is part of the body's central nervous system. This is the sensory system that allows us to see and process visual information. Visual processing difficulties differ from having poor vision.

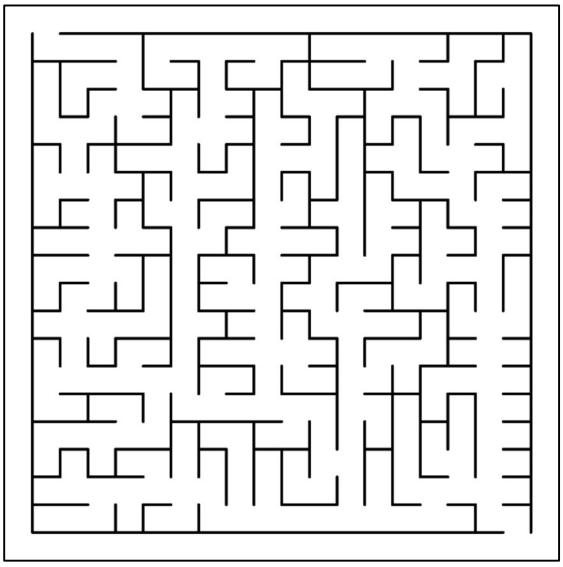
If a student has poor vision, their eyes will not send accurate information to the brain. Alternatively, difficulties with visual processing occur when the eyes are sending accurate information to the brain-but somewhere along the way, the information is not getting analyzed and processed appropriately.

In order to accurately identify letters and numbers, students rely on visual processing heavily. In discrimination of these, the formation of each letter is the main distinguishing factor. Students with visual discrimination challenges will often distinguish between objects based on their color rather than their shape.

Image sourced from Google Images https://hes-extraordinary.com/visual-sensory-processing

Scanning for images or words is a great visual activity for students. Mazes, word searches, or "find the object" images are activities that support this skill.





Images sourced from Google Images

https://www.andnextcomesl.com/2015/11/visual-sensory-toys.html?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_smartloop&utm_content=smartloop&utm_term=21258266

Different types of lights are very engaging for students with visual processing deficits. Flashlights, projectors, and finger lights are some fun ideas to stimulate this sense.

Images sourced from Google Images

https://www.andnextcomesl.com/2015/11/visual-sensory-toys.html?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_smartloop&utm_content=smartloop&utm_term=21258266

A classic toy like a **kaleidoscope** can provide a lot of sensory input for visual seeking kids. They can be mesmerized for hours by staring at the changing colors and patterns.

Images sourced from Google Images

https://www.andnextcomesl.com/2015/11/visual-sensory-toys.html?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_smartloop&utm_content=smartloop&utm_term=21258266

Glowsticks provide quick access to bright, stimulating colors. They are generally found inexpensively at dollar stores and can be used in a variety of ways to provide visual stimulus.

Images sourced from Google Images

https://www.andnextcomesl.com/2015/11/visual-sensory-toys.html?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_smartloop&utm_content=smartloop&utm_term=21258266

Visual movement can be very calming for some students. Students can use this movement for calming down or general enjoyment. Liquid timers, lava lamps, and sensory bottles are just a few ways students can watch visual movement.

Images sourced from Google Images

https://www.andnextcomesl.com/2015/11/visual-sensory-toys.html?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_smartloop&utm_content=smartloop&utm_term=21258266

Auditory (Hearing)

The **auditory system is the most complex and delicate sensory system we have that controls our sense of hearing.** The auditory system is incredibly sensitive-it responds 1000 times faster than our visual system. Auditory messages are received by the brain from two auditory pathways that need to work together in order for the auditory sensory system to work well. Auditory processing issues are separate from hearing damage or loss.

Struggles relating to auditory processing issues differ vary. Those with discriminative difficulties may struggle with reading and writing, such as spelling words with letters in the wrong order. Students may also be over-sensitive to sounds, or contrastingly be unaffected by or not respond to sounds. If students are struggling auditorily, the best way to respond is to accommodate their environment.

Image sourced from Google Images https://hes-extraordinary.com/the-auditory-system

A sound machine or MP3 player can help students "drown out" unwanted noise. Sound machines can be independent devices, but there are many tablet/smart phone applications that enable the use of a sound machine on your device. Alternatively, noise canceling headphones can be used in the event the student prefers no noise at all.

Images sourced from Google Images https://www.everystarisdifferent.com/2018/03/auditory-sensory-resources-for-children.html

Olfactory (Smell)

The olfactory system is most commonly referred to as our sense of smell. Things that we smell can affect our behavior, emotion, memory, and even our thoughts.

Atypical olfactory processing can occur when there is an abnormal increase or decrease in the signals transmitted from what we breathe into our nose to the receptor in the brain. It can also happen when signals get mixed during the process, causing you to smell things differently (often unpleasantly) or smell things that aren't there.

Students with olfactory difficulties may smell things differently or more strongly than their peers. They also may have a lack of smell, or seek out certain smells. If students are struggling, the best way to respond is to accommodate their environment.

Image sourced from Google Images https://hes-extraordinary.com/the-olfactory-system-how-spd-affects-the-sense-of-smell

Olfactory Activities

Lavender Water Bin

Materials:

- water
- purple finger paint
- purple glitter
- beads
- scraps of purple plastic tablecloths
- clear plastic cups for pouring and transferring…and scooping, and dumping…
- dried lavender/cloves/rosemary
- and a few drops of lavender oil

https://www.theottoolbox.com/relaxing-lavender-water-bin/

Scented Sparkle Heart Craft

Materials:

- craft paper to cover the table
- red construction paper
  glue
- Scented Bath Salt

https://www.theottoolbox.com/valentines-day-fine-motor-sparkle-craft/

Scented Noodle Play

Materials:

- Cooked noodles
- Food coloring (half the noodles)
- Peppermint extract
- Large bag (to toss the noodles in dye and extract)
- Sheet pan or other play surface

https://www.theottoolbox.com/christmas-sensory-fine-motor-noodle-play/

Scented Noodle Play

Materials:

- Lotion (scented or unscented)
- Corn Starch
- Peppermint extract
- Red food coloring

To make the consistency of moon dough, use a 4:1 ratio of corn starch to lotion. Different brands of lotion may affect this recipe. As you mix the ingredients together, you many need to use more or less corn starch depending on the consistency

https://www.theottoolbox.com/candy-cane-scented-moon-dough-sensory/

Gustatory (Taste) and The Oral Motor System

The gustatory system is better known as our sense of taste and works very closely with our sense of smell. The oral motor system involves all of the senses inside the mouth and it's what creates the entire experience of any oral input.

A student that is over-sensitive to oral motor sensations may gag easily, be a picky eater, and might have strong emotional reactions to requests such as brushing their teeth or trying a new food. Students that are under responsive to this input may frequently put items in their mouths that are not edible, chew on items such as pencils or their own lips and mouth, or make noises with their mouth that is irritable to others. Speech language pathologists can be a resource when looking for solutions to oral motor difficulties.

Image sourced from Google Images https://hes-extraordinary.com/the-oral-motor-system

Oral Motor Activities for Kids

http://www.andnextcomesL.com

SNACK TIME

- Eat hard foods (carrots, apple, etc.)
- Eat chewy foods (celery, beef jerky, dried fruit, etc.)
- Eat crunchy foods (nuts, crackers, dry cereal, etc.)
- Drink a frozen drink like a slush or slurpee
- Drink through a narrow and/or twisty straw
- Drink a thick liquid through a straw (milkshake, applesauce, etc.)
- Make an edible necklace with cereal or candy
- Chew gum
- Eat foods with strong flavors
- Suck on hard candies
- Eat cold foods like popsicles or ice cream

PLAY TIME

- Blow cheeks
- Blow bubbles
- Stick out your tongue
- Blow bubbles in water using a straw
- Play straw games (e.g., use a straw to blow a pom pom across the table)
- Blow a whistle, harmonica, or other instruments
- Blow out candles
- Vibrating toothbrush
- Lick stamps
- Roll tongue into a circle
- Chew toys
- Whistle or hum a song
- Blow up balloons

Chewing Options

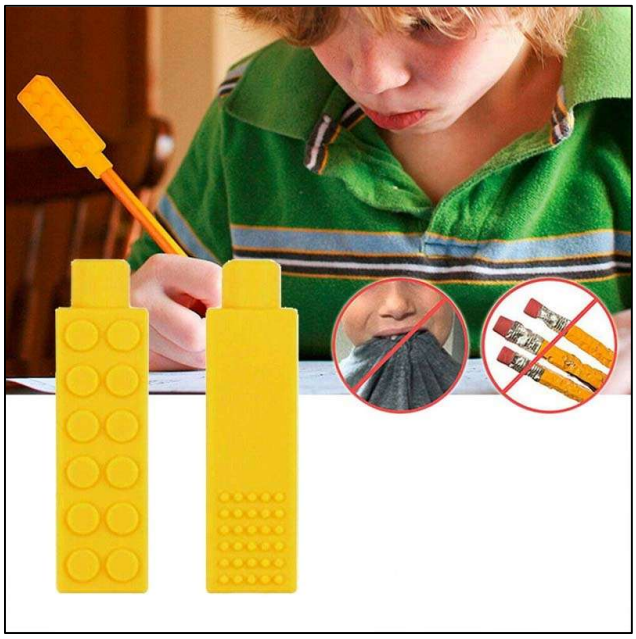
Chewing on unwanted objects is one of the most problematic issues that face students in the classroom. There are many different items that students can use in the classroom to satisfy their oral sensory needs.

This chew attaches to the zipper of the student's coat. The student has easy access to the chew, even when they go outdoors.

https://www.andnextcomesl.com/2015/06/oral-motor-activities-for-kids-printable.html

Many students that have the desire to chew are often found with the neck of their shirt in their mouths. Chew necklaces or bracelets like the ones below provide an alternative to the student's shirt that is just as easily accessible, but much more durable.

Another heavily chewed-on item is the end of pencils. Chewing on pencils can be dangerous due to the sharp metal and the possibility of ingesting small, inedible materials. Pencil toppers are small, durable shapes that sit over top of the eraser, allowing the student to chew on the pencil top without fear of harm.



https://www.andnextcomesl.com/2015/06/oral-motor-activities-for-kids-printable.html

Sensory Room

A sensory room is a dedicated space where students are able to engage in activities that heighten or decrease certain sensory needs. Caregivers and equipment are combined to enable students to explore a variety of touch, taste, sound, sights, and movements in an environment that is safe and monitored. Repeated exposure to sensory activity can help to lessen its impact on a student and help to find safer alternatives for sensory needs that may be challenging.

https://www.parentingspecialneeds.org/article/diy-sensory-rooms-budget/?amp=1

Sensory Room Examples

https://www.parentingspecialneeds.org/article/diy-sensory-rooms-budget/?amp=1

9 Things to Include in Your *Sensory Room*

1.

2.

3.

4.

5.

6.

7.

8.

9.

www.singingthroughtherain.net

Independent Work Systems

Structured work systems were developed by Division TEACCH at UNC Chapel Hill as part of the structured teaching programmatic approach to working with individuals with ASD. A structured work system, sometimes called an independent work systems or work systems, is a setup of work to be done within a visually cued system that answers four questions:

1. What work needs to be done?
2. How much work needs to be done?
3. How do i know when I'm finished?
4. What do I do next?

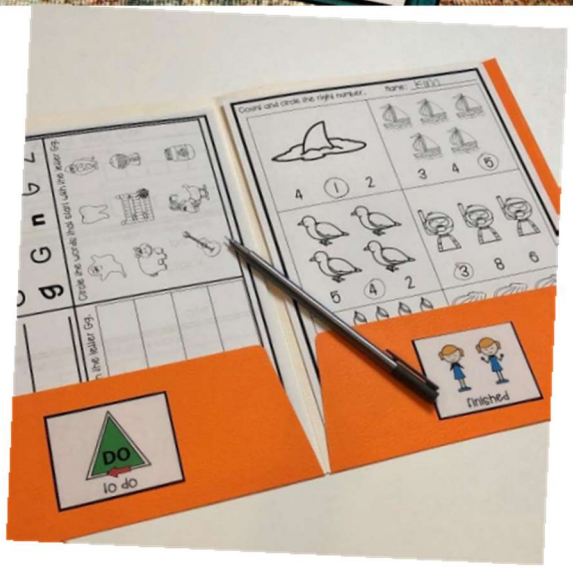
A work system provides a student opportunity to work and practice skills without interference from adults. Students practice maintenance of learned skills while building the skills to work independently. The level of difficulty, amount of assignments, and setting can be changed as needed to meet the needs of the student.

https://autismclassroomresources.com/structured-work-systemswhat-are-they/

Structured work schedules
for students with special needs

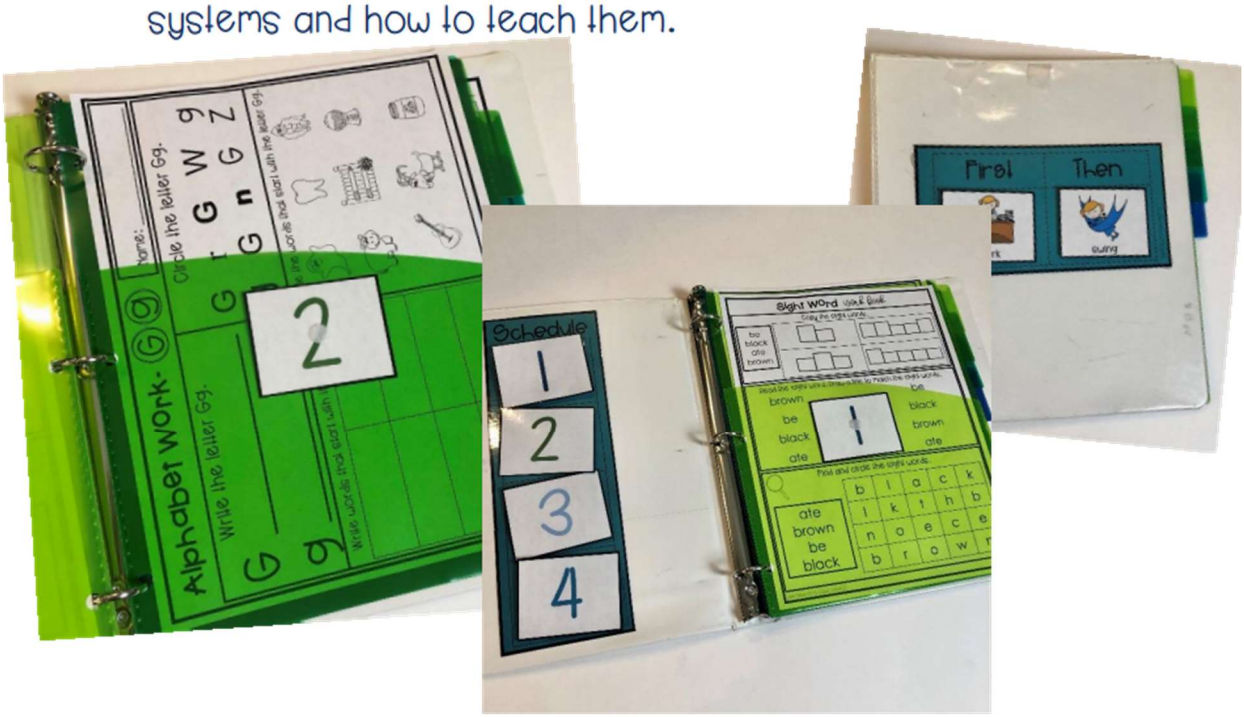
Includes:

- Materials to make a structured work system with a folder, binder or drawer system!
- Schedule for structured work system
- First/ then chart
- Schedule cards for work system schedule & first/ then chart
- Reinforcer cards



How to prep:

- Structured work schedules:
  - Print and laminate the schedules. Attach soft velcro to blank boxes on schedules.
  - Print and laminate desired schedule cards (pages 4-7), reinforcer cards (page 8) and finished cards (page 9). Cut out cards. Attach rough velcro to the back of the reinforcer cards. Attach soft velcro to the FRONT of one set of schedule cards. Attach rough velcro to the back of one set of velcro cards. (You'll have a set of 1-4 with rough on the back and a set of 1-4 cards with soft on the front).
  - You can use 1-4 schedule cards at a time. You can put the reinforcer cards on the schedule or somewhere else in the student's work space. It's all about individualizing the system to work for your students.
  - Click here if you want more information about structured work systems and how to teach them.



Tip: Print the schedules and first/ then charts on colored paper or thick cardstock!

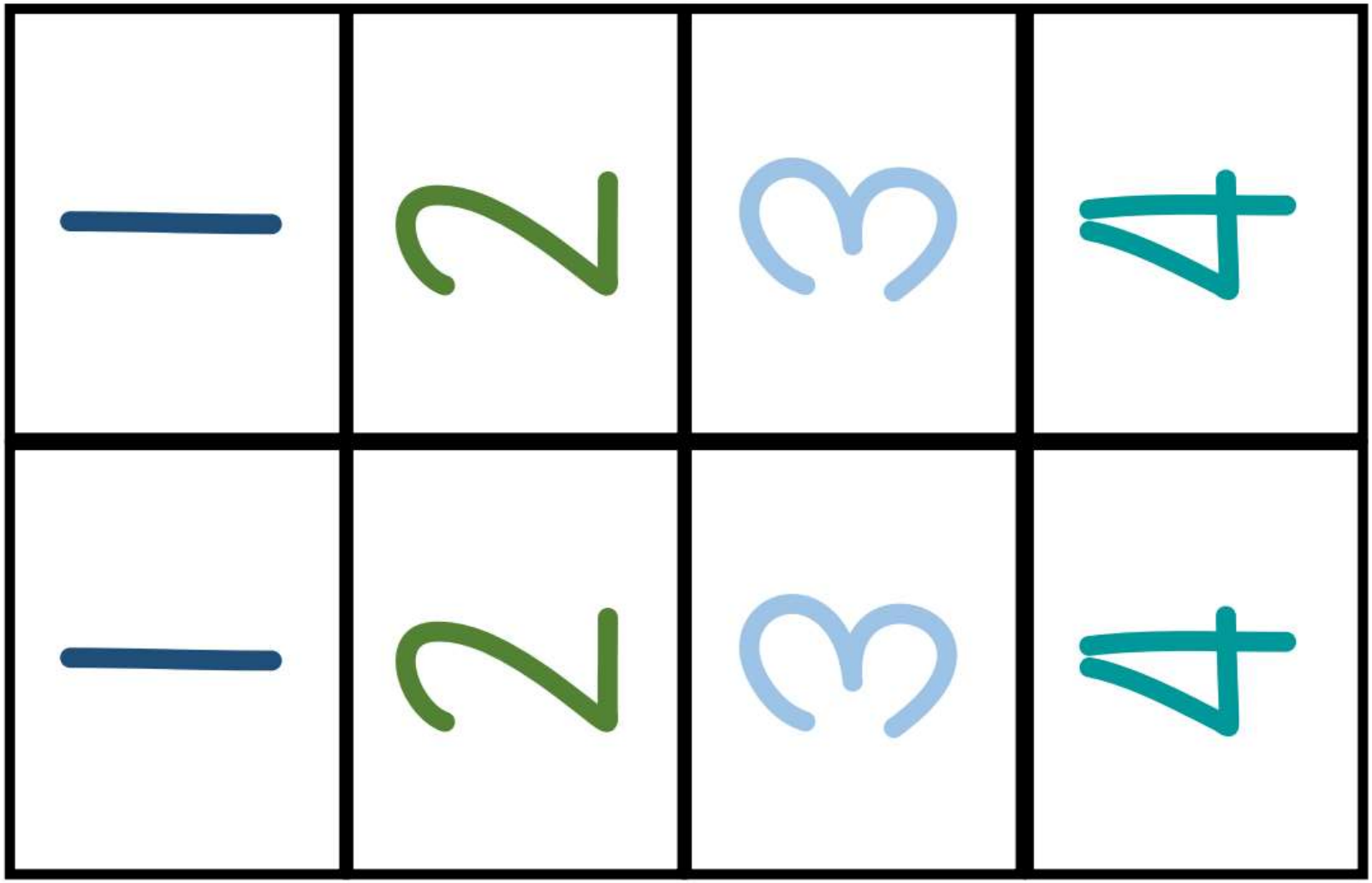
Structured work schedules.

Schedule

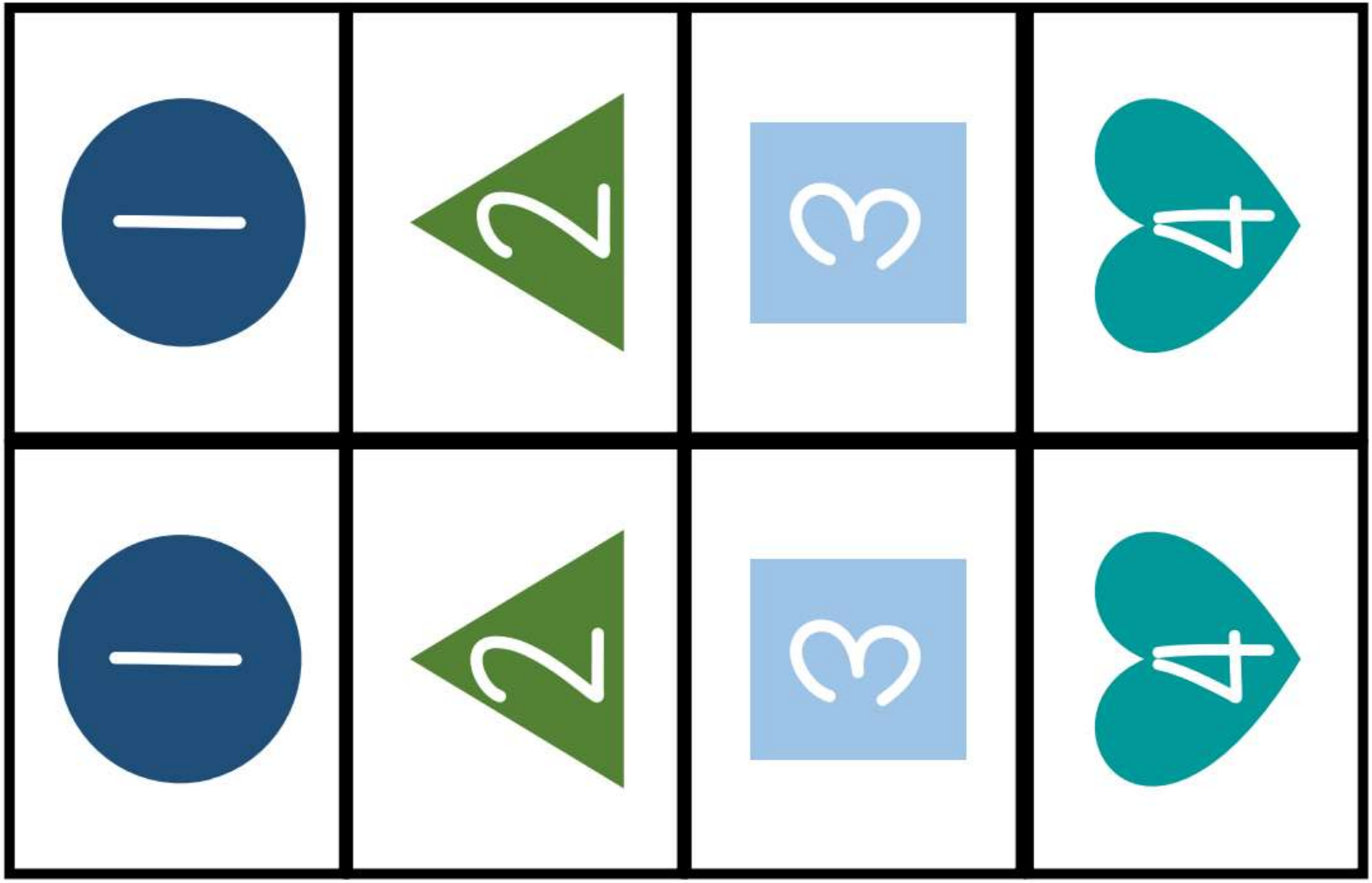
Schedule

© Little Miss Kim's Class

Variety of schedule cards for schedule. You can use 1-3 cards and leave a space on the schedule for the reinforcer card or you can use all 4 schedule cards. It's up to you! Remember you <u>can</u> individualize it!



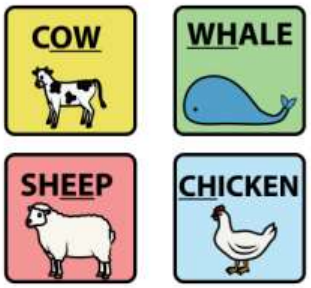
Variety of schedule cards for schedule. You can use 1-3 cards and leave a space on the schedule for the reinforcer card or you can use all 4 schedule cards. It's up to you! Remember you <u>can</u> individualize it!



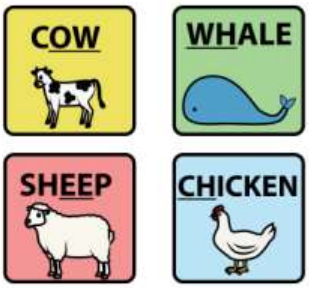
More schedule card options

read

read



phonics



phonics

reading

reading

work

work

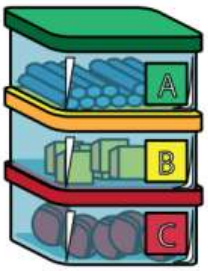
More schedule card options

writing

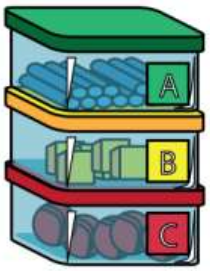
writing

math

math



task box



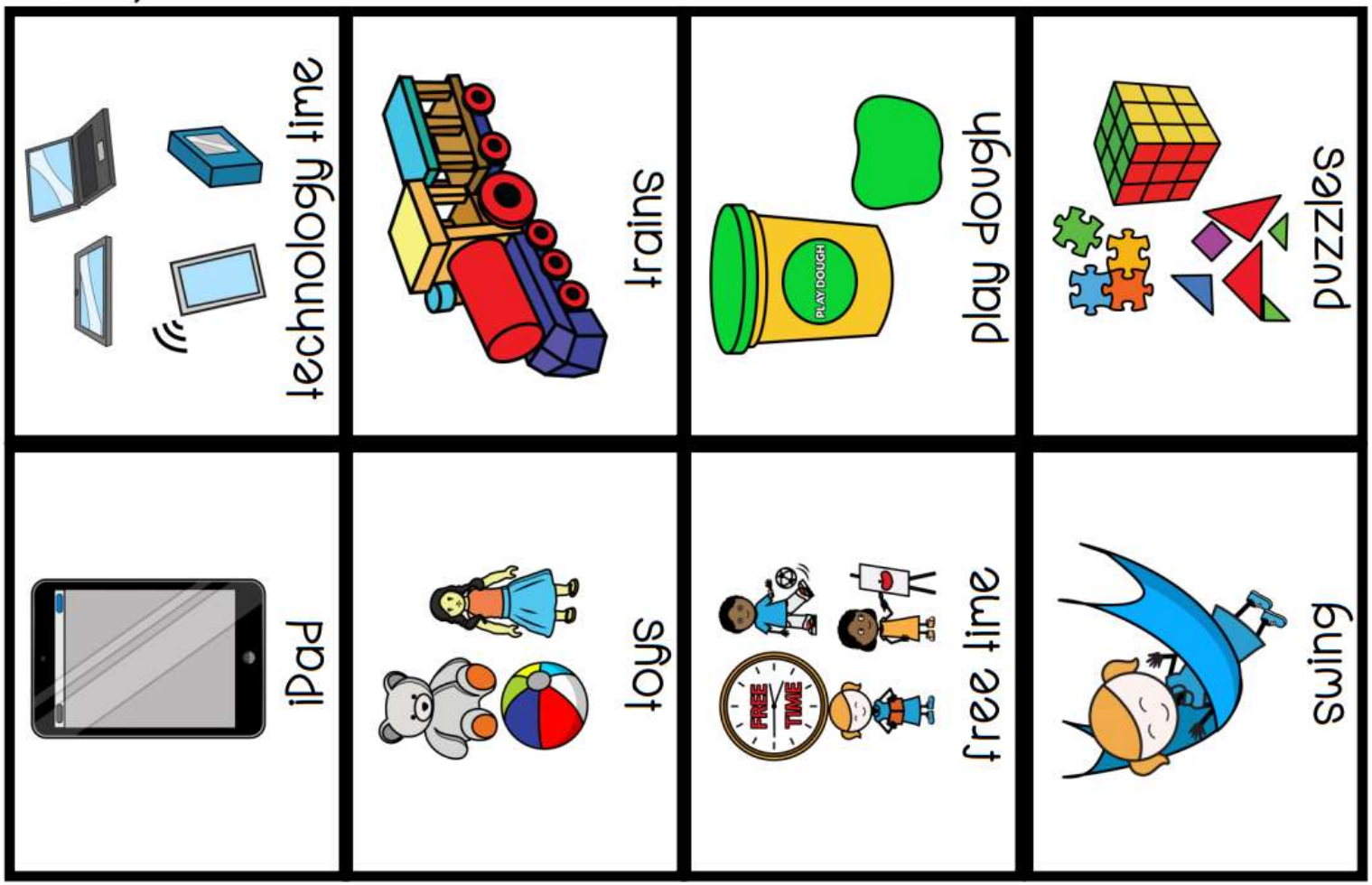
task box

work

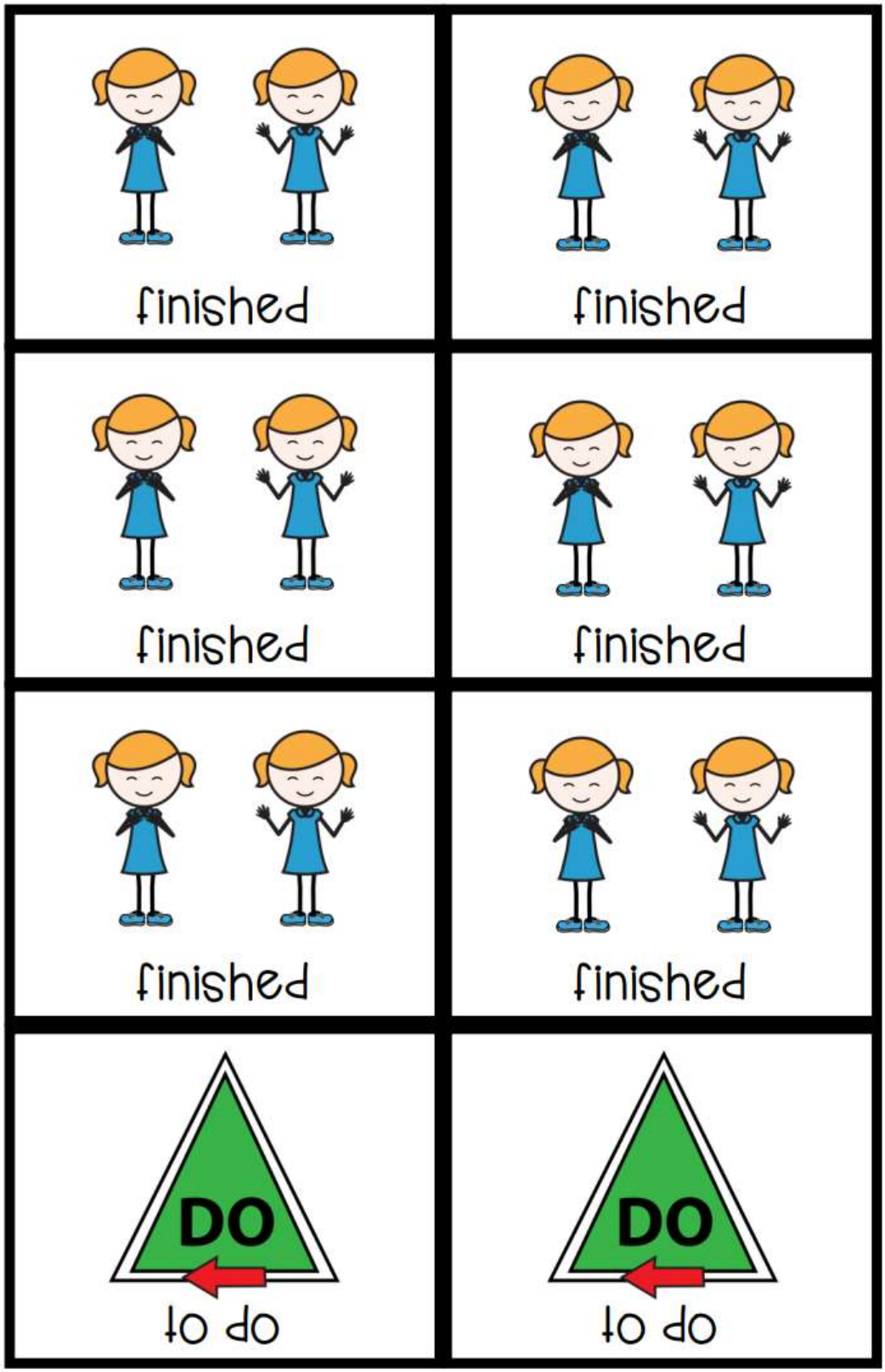
work

Reinforcer cards. Options:

- You can put one on the last spot on the schedule (so students see the 1-3 tasks they need to do and then they see the reward)
- You can put the reinforcers on a separate first/ then chart (I provided one too!)
- You can set out another way for students to see their reward (like a choice board or communication device)



Finished and to do cards.



First	Then

First	Then

Task Boxes

Task boxes are streamlined, engaging activities that fit well into independent work systems. Materials are ready and easily accessible by students, with the containers being a great way to keep things organized.

TIPS FOR SLOWER WORKERS:

Sometimes my students are unable to finish all 3 tasks during the 15 minute rotations. To help with this, you can:

PAIR MORE CHALLENGING CONCEPTS WITH EASIER TASKS

REDUCE THE NUMBER OF TASK CARDS IN THE BOX

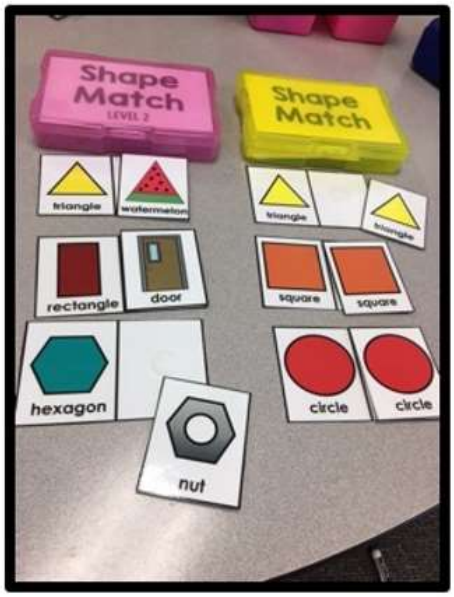
especially EDUCATION

THE TASK BOXES

These activities are designed to fit into a compact space.

I use these picture boxes from Michael's, but pencil boxes work well too!

2 LEVELS OF DIFFICULTY



Each of the tasks has **two levels of difficulty.** One concept: 2 levels of differentiation.

3- DRAWER BIN SYSTEM

This year, I started using a 3-drawer bin to organize our independent work station and I LOVE it!

The students can see how many activities they have completed and how many they have left.

Ideally I would like each student to have their own bin, but due to limited space, that is unrealistic.

INSIDE THE BIN

Each drawer has one activity. When they finish the activity, they put it in a finished box *(not pictured)*. When all 3 activities are completed, the student cleans up.

Work System / Task Box Examples

https://especiallyeducation.com/task-box-independent-work-system/

Spelling CVC Words: Print on white cardstock, laminate, cut. Have students use magnetic letters or letter tiles to spell the CVC Words.

Spelling
CVC Words

Task Box Label

Spelling: use magnetic letters or letter tiles to spell the CVC words

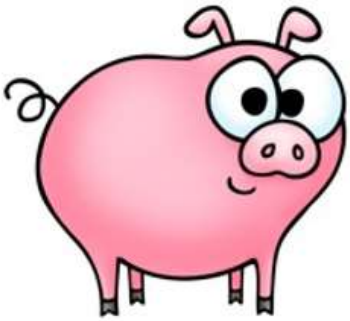
log

fox

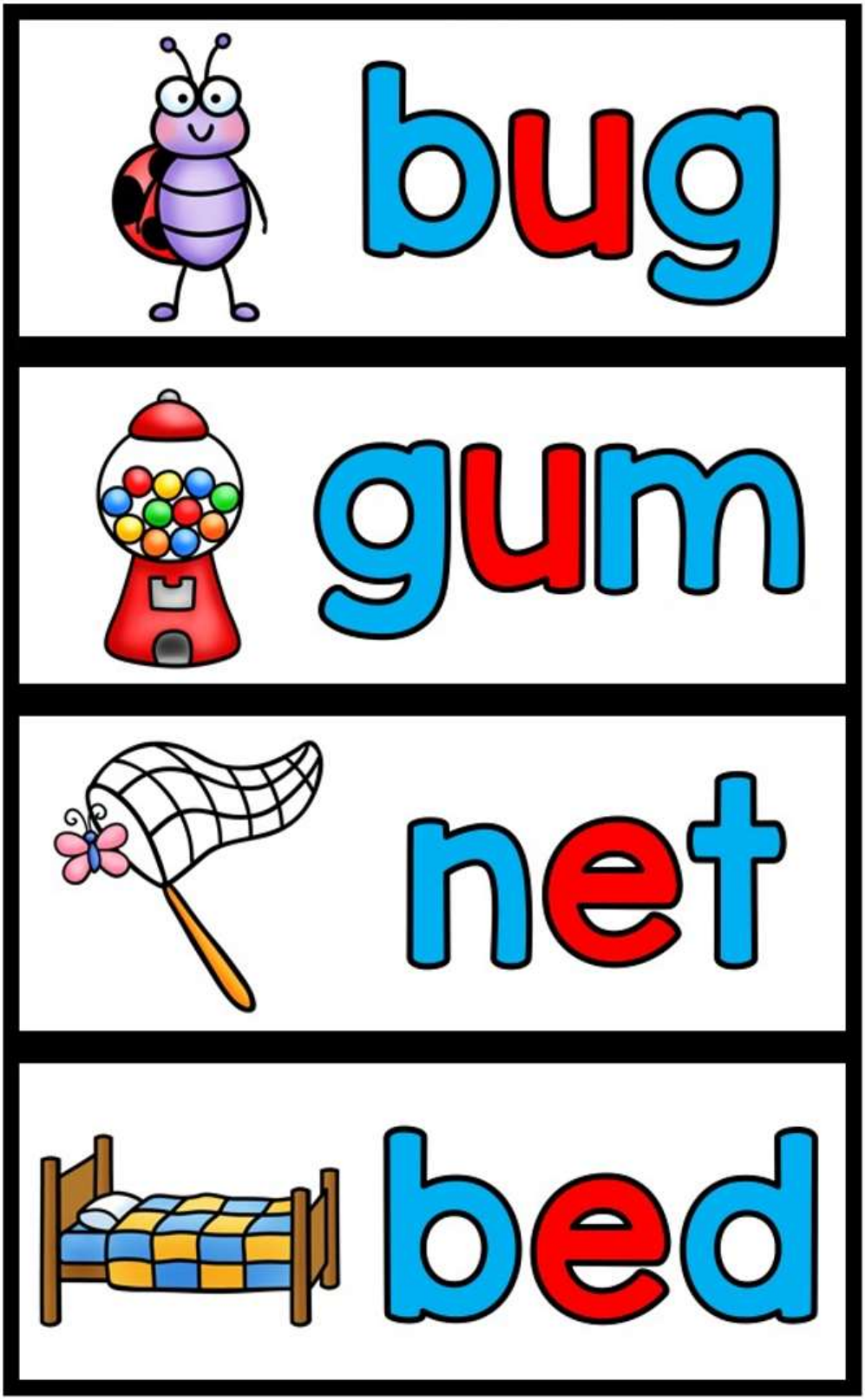
rat

map

mix



pig



Specific Learning Disability

"If a child can't learn the way we teach, maybe we should teach the way they learn."

-Ignacio Estrada

What is it?

An "umbrella" term, SLD incorporates a group of learning challenges. These challenges may impact the way students are able to read, write, perform mathematics, or process information. A few disabilities that could fall into this category include:

- Dyslexia
- Dysgraphia
- Dyscalculia
- Auditory processing disorder

What should I keep in mind?

Students with LD often feel a sense of responsibility in their deficits, leading to low self-esteem and low self-expectations. These students are also prone to hyperactivity and/or inattention, which can further complicate their ability to achieve.

A common misconception: Students with learning disabilities would do better if they just tried harder.

The Facts: Students with learning disabilities have deficits due to differences in their brain structure and how they take in, process, and store information.

https://www.understood.org/en/school-learning/special-services/special-education-basics/conditions-covered-under-idea

What difficulties might I see from my students?	
READING DEFICITS	• Comprehension of text • Recalling sounds of letters • Reading with fluent rate and prosody • Lack of vocabulary knowledge
MATHEMATICS DEFICITS	• Inability to process numbers efficiently • Counting semantics • Recalling facts or computation processes • Problem solving • Mental math strategies
WRITING DEFICITS	• Vocabulary knowledge • Spelling • Handwriting • Developing ideas
RELATED DEFICITS	• Receiving information visually • Receiving information auditorily • Hyperactivity • Inattentiveness • Impulsivity • Expressing thoughts orally • Social skills

Adapted Writing Paper

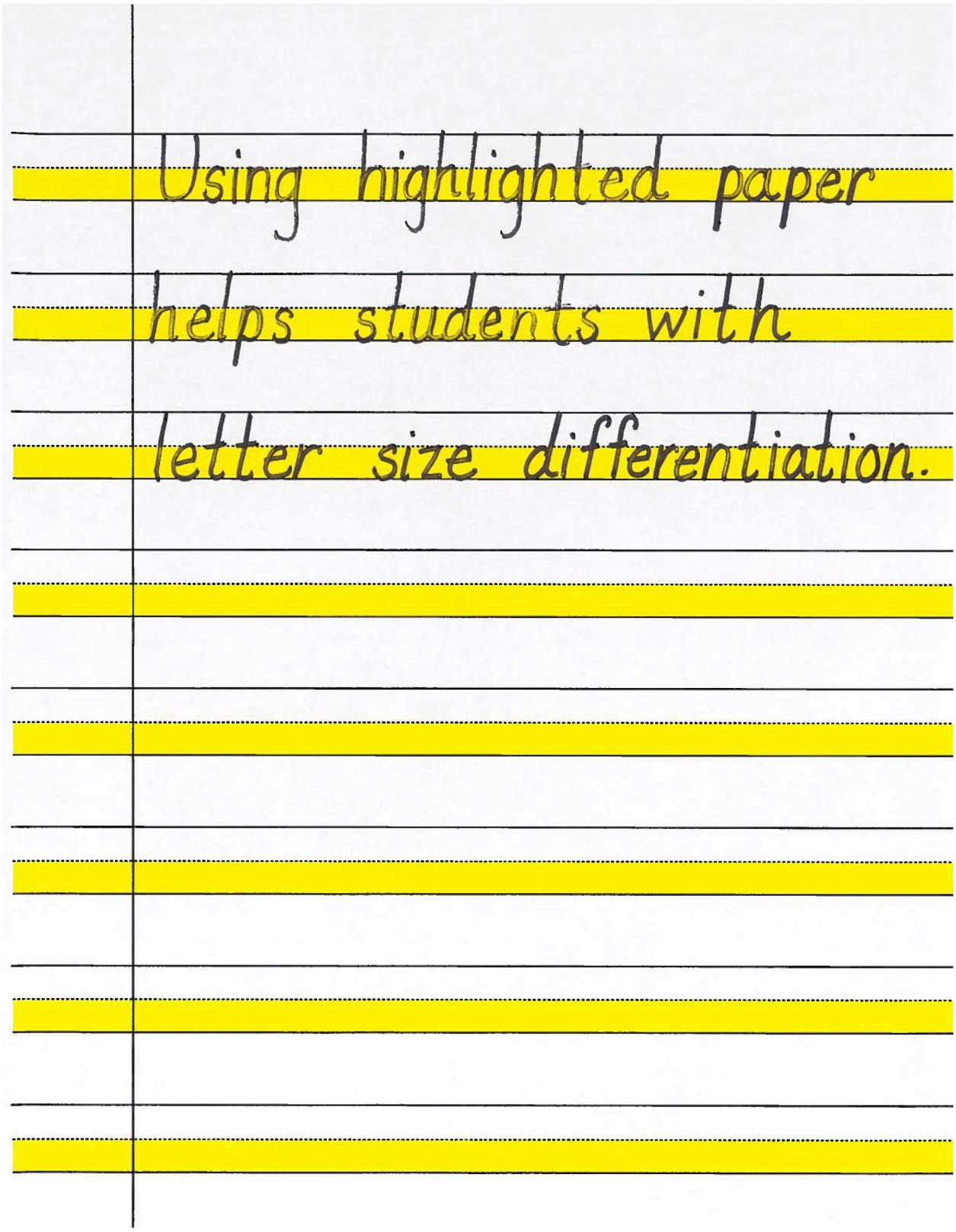
Students with learning disabilities in writing can often have poor handwriting. They also may struggle to organize their writing on a page. Adapted writing paper can be beneficial, bold baselines, colored spaces, or increased space on a page. Students that struggle with letter formation, letter size, line use, spatial awareness, or margin use can benefit from adapted writing paper.

https://www.theottoolbox.com/ultimate-list-of-free-adapted-paper/

name:

Name **Date**

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm
Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz



https://blog.maketaketeach.com/wp-content/uploads/2012/05/Highlight-paper2.gif

Name

1

2

3

4

5

6

7

8

9

10

Name

1

2

3

4

5

6

7

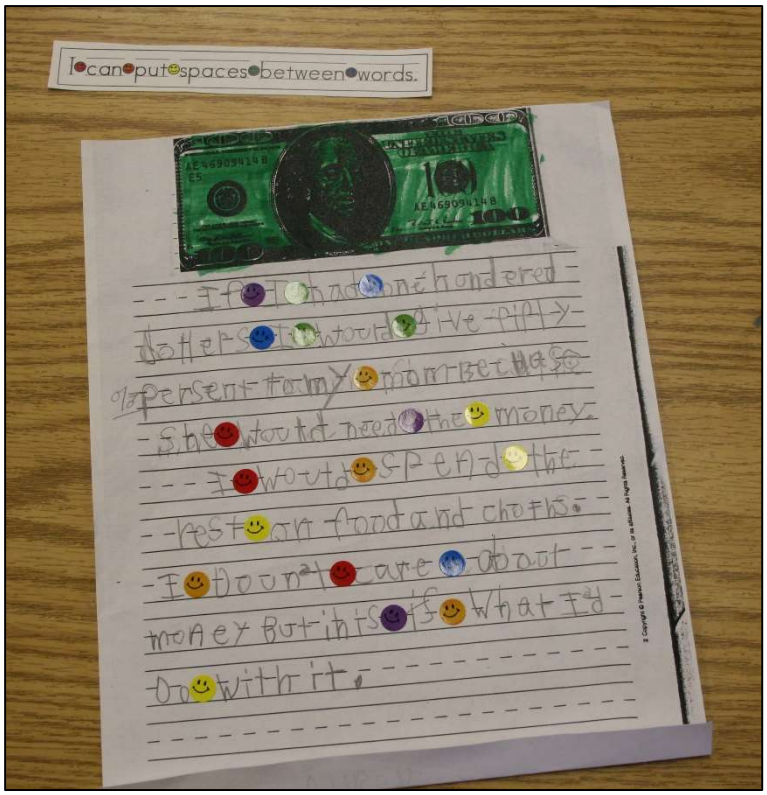
8

9

10

Promoting Spacing Between Words

The student is told that the spaces between words must be wide enough to fit a small sticker. Small smiley face stickers work best. These stickers can be found in the teacher supply area in office supply stores.



A visual reminder is placed on the student's desk during the writing process which shows a small sticker placed between the words.

After the student finishes his/her writing, the paper is given to the teacher and a small sticker is placed between words where the sticker will fit. If the space between the words is too small, a sticker is not put in that area.

https://blog.maketaketeach.com/teaching-students-to-space-between-words/

I can put spaces between words.

I can put spaces between words.

I can put spaces between words.

I can put spaces between words.

I can put spaces between words.

I can put spaces between words.

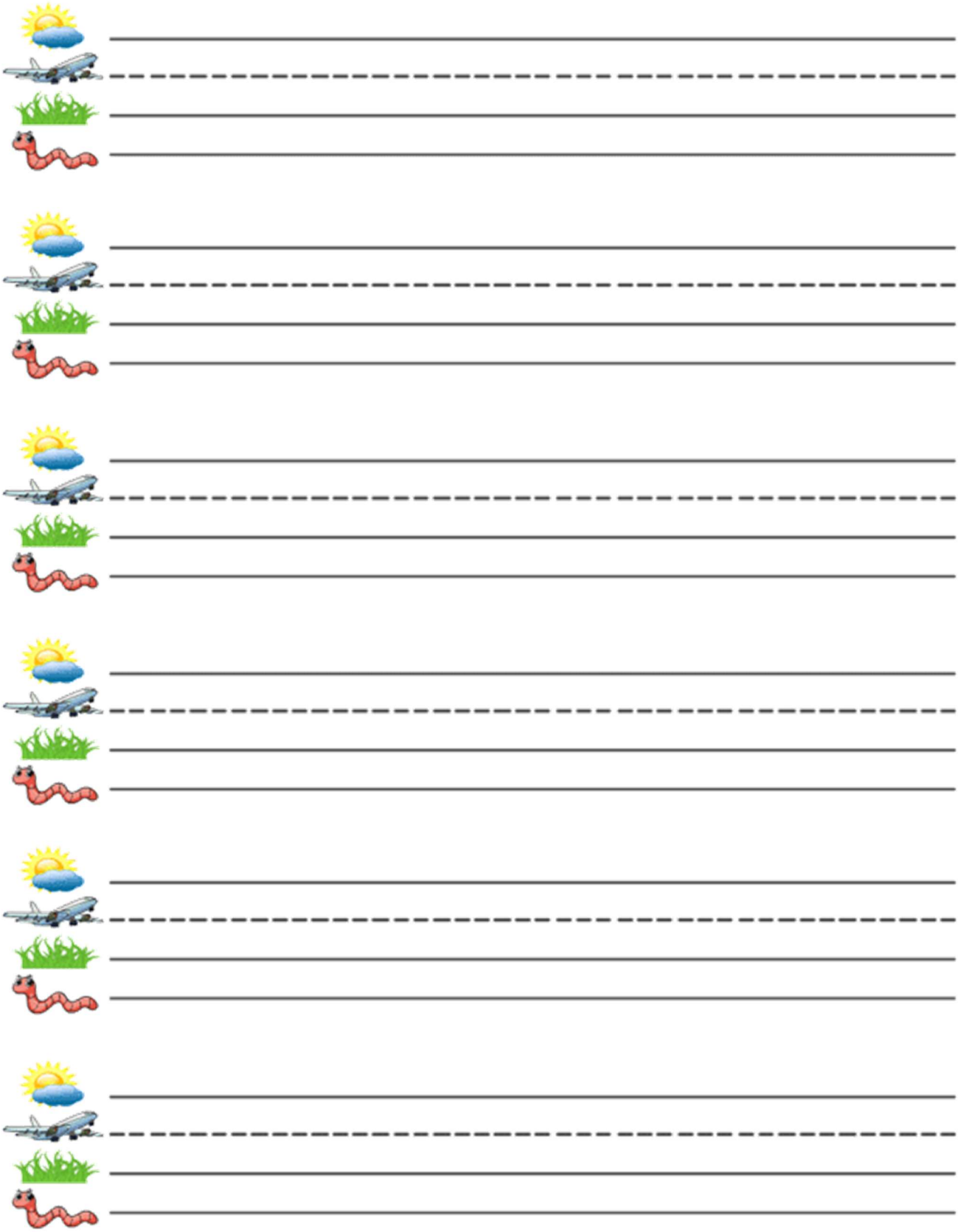
I can put spaces between words.

I can put spaces between words.

I can put spaces between words.

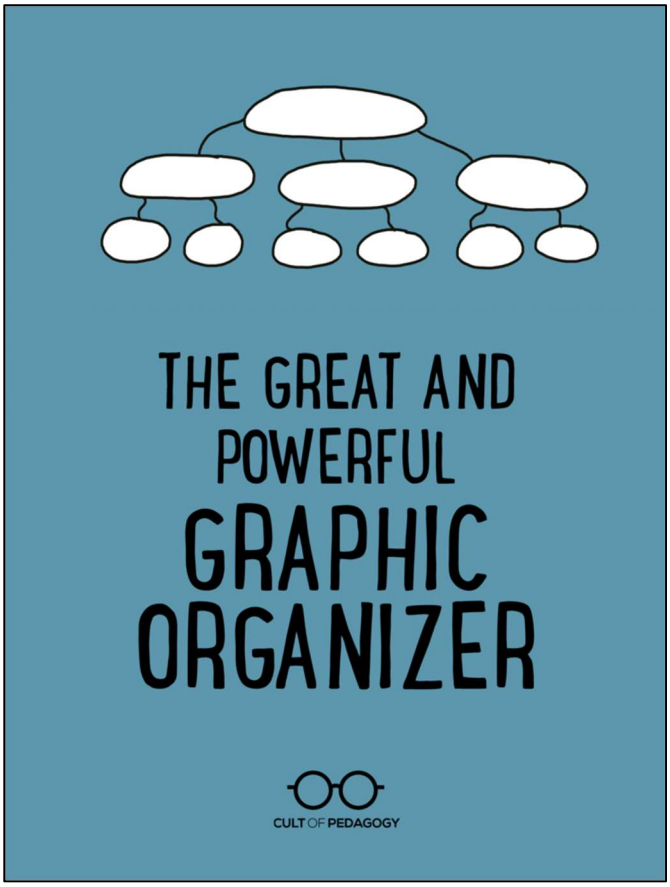
I can put spaces between words.

https://blog.maketaketeach.com/teaching-students-to-space-between-words/



https://shapinguptobeamom.com/kindergarten-lined-paper-free-printable-sky-line-plane-line-grass-line-worm-line/

Graphic Organizers



Students with learning disabilities often are visual learners and thinkers. This means they are able to understand and remember concepts easier when represented in pictures, diagrams, charts, or maps. Graphic organizers are visual outlines that enable the thoughts of a student to be represented in visual form. Graphic organizers are available for writing, as well as reading and math, and can be customized in a variety of ways to fit the needs of students.

https://ldaamerica.org/graphic-organizers/

Name: _____ Block: _____ Date: _____

ESSAY WRITING: SANDWICH DIAGRAM

Introduction:

Grabber Statement:

Thesis Statement:

Topic 1:

Include 3 to 4 supporting points

Topic 2:

Include 3 to 4 supporting points

Topic 3:

Include 3 to 4 supporting points

Conclusion:

Summary of Thesis:

Clincher Statement:

Five Paragraph Essay Organizer

Name: _____ Date: _____

Prompt: _____

_____

Introduction Paragraph

Hook:

Thesis:

Body Paragraph

Topic Sentence:

Detail:

Detail:

Detail:

Closing:

Body Paragraph

Topic Sentence:

Detail:

Detail:

Detail:

Closing:

Body Paragraph

Topic Sentence:

Detail:

Detail:

Detail:

Closing:

Closing Paragraph

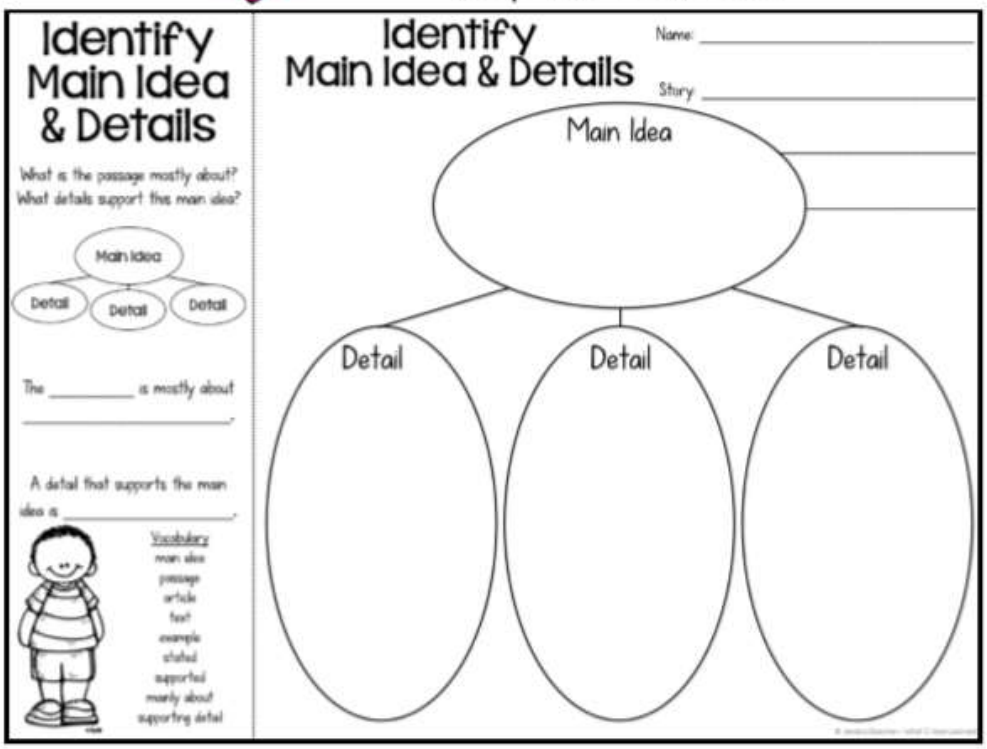
Say your thesis differently:

Close with an interesting thought:

Made with Love by Jenifer Bazzit

Graphic Organizers

Cut on the dotted line and keep the bookmark

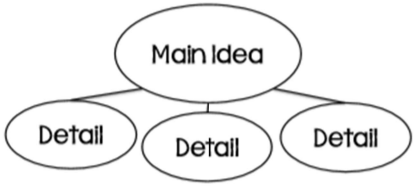


To use these graphic organizers, students can fold over the bookmark and use it as a reference when filling out the graphic organizer. Detach the bookmark to glue in an interactive notebook or use with future books. The graphic organizers come without directions so that you can guide your students in how you want students to fill them out.

Graphic Organizers with Attached Bookmarks

Identify Main Idea & Details

What is the passage mostly about?
What details support this main idea?



The _____ is mostly about

_____.

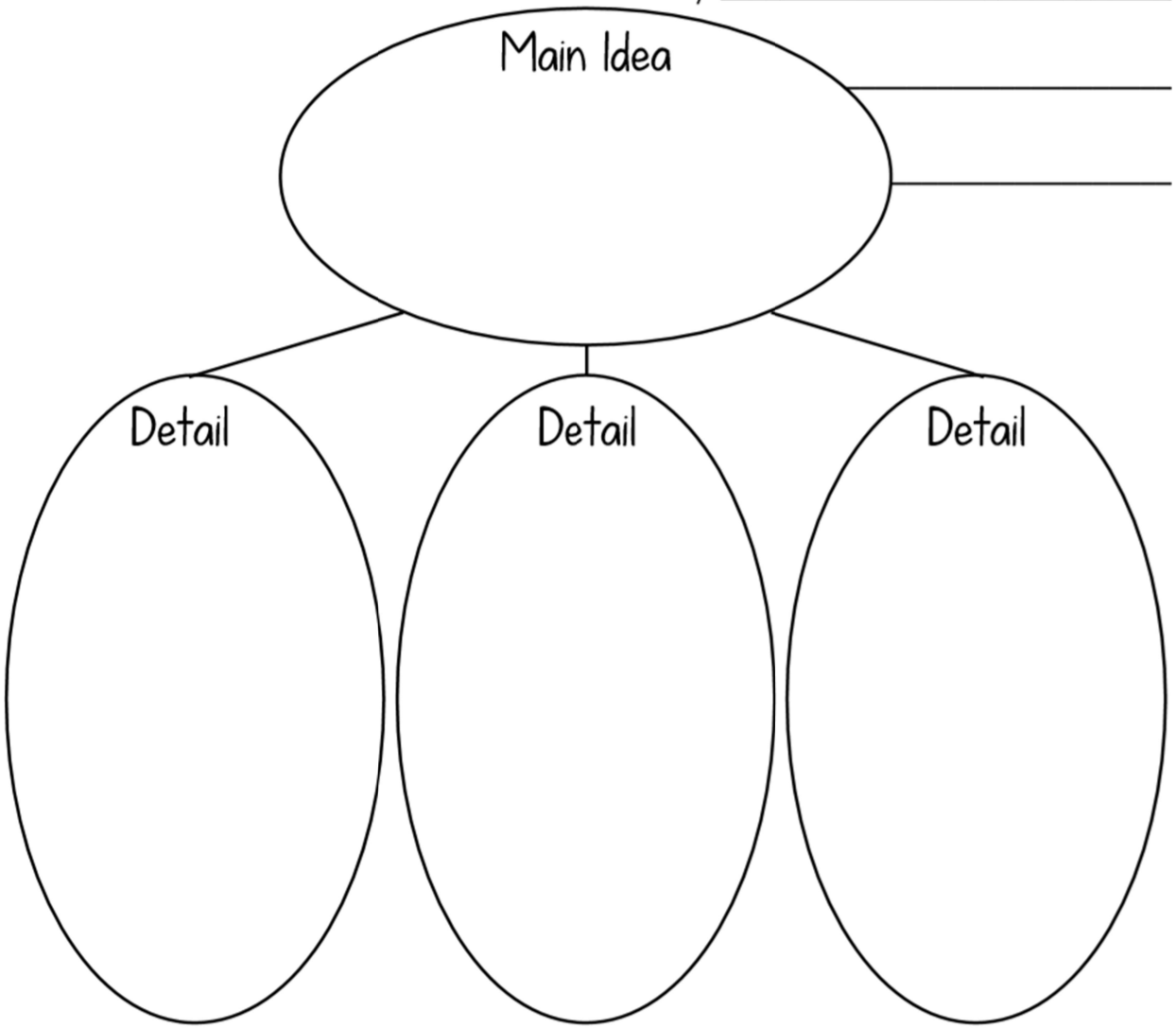
A detail that supports the main idea is _____.

Vocabulary
main idea
passage
article
text
example
stated
supported
mainly about
supporting detail

Identify Main Idea & Details

Name: _____

Story: _____



Cause & Effect

What happened? (effect)
Why did it happen? (cause)

Cause ⇨ Effect

_____ because _____.
effect cause

_____ so _____.
cause effect

Since _____, _____.
cause effect

Vocabulary
result
as a result of
changed
consequence of
before / after
causes
led to

_____

Cause & Effect

Name: _____

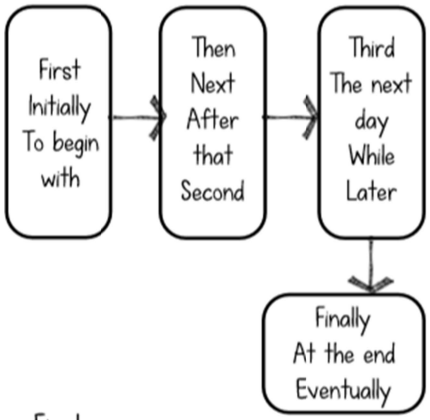
Cause ⇨ Effect

Cause ⇨ Effect

_____ ⇨ _____

Sequence Events

What happened first, second, third?
What happened last?



First _____.

Then _____.

Next _____.

Finally _____.

<u>Vocabulary</u>

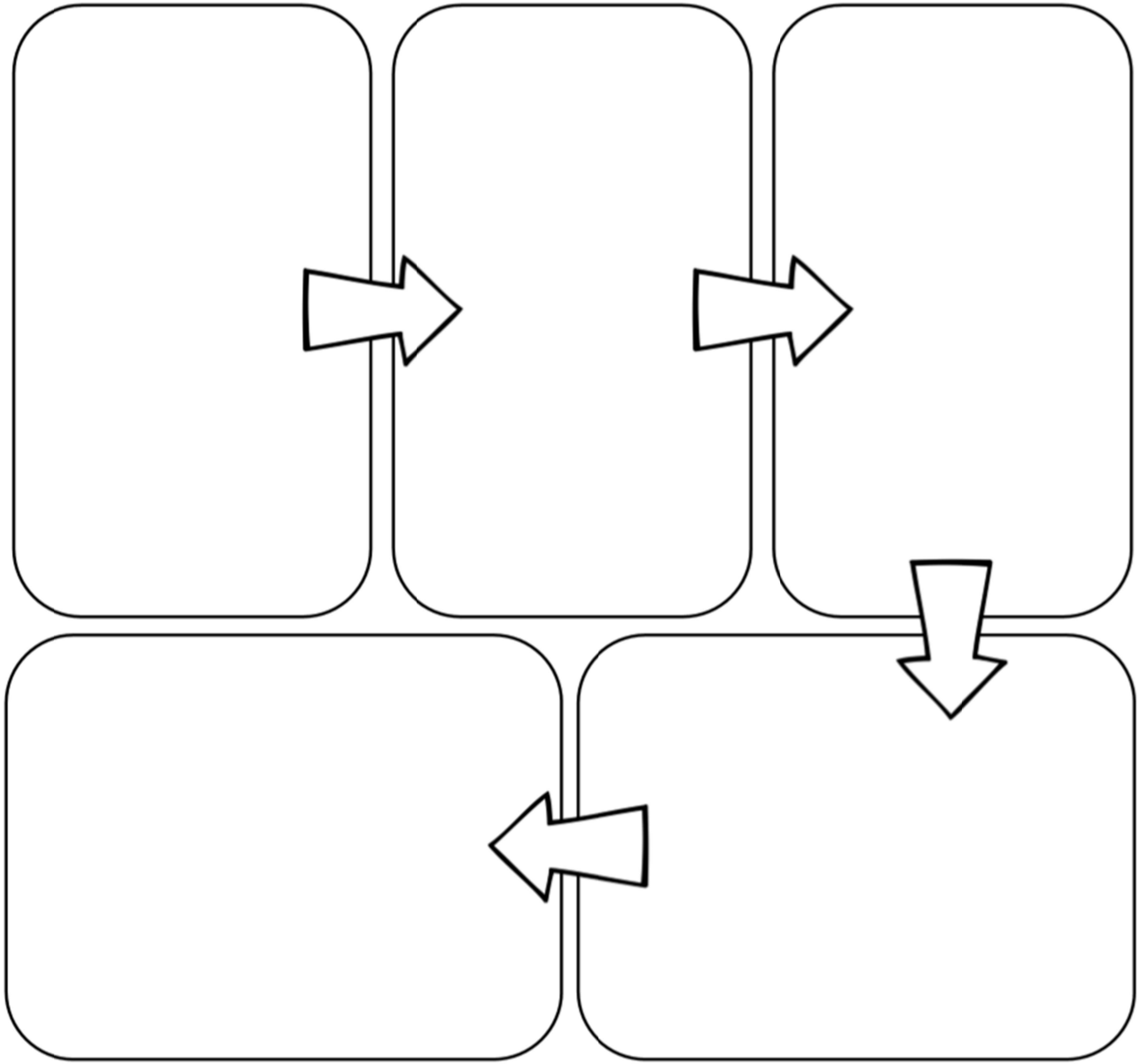
as soon as
when
eventually
after that
prior to

_____

_____

Sequence Events

Name: _____



Graphic Organizers for Math

Mathematical graphic organizers allow students to organize and visualize the information needed to problem solve in mathematics. can be used to improve students' abilities to comprehend and process that information by seeing it separated it into categories of what is more important and what less important. Over time, graphic organizers help learners become strategic problem solvers.

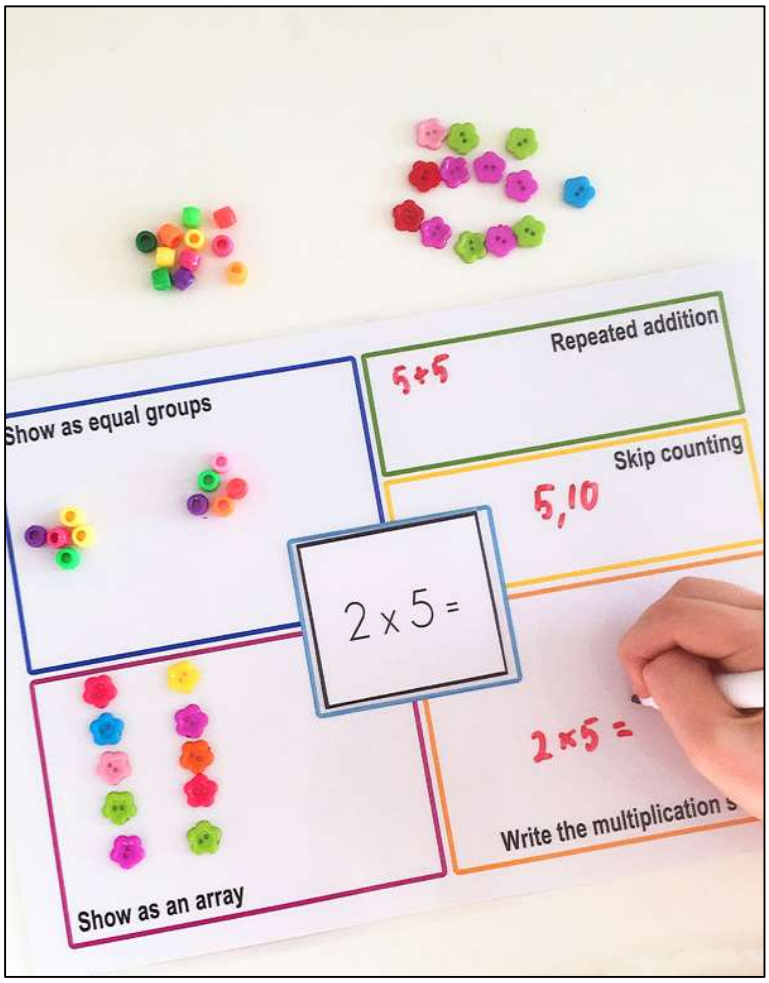
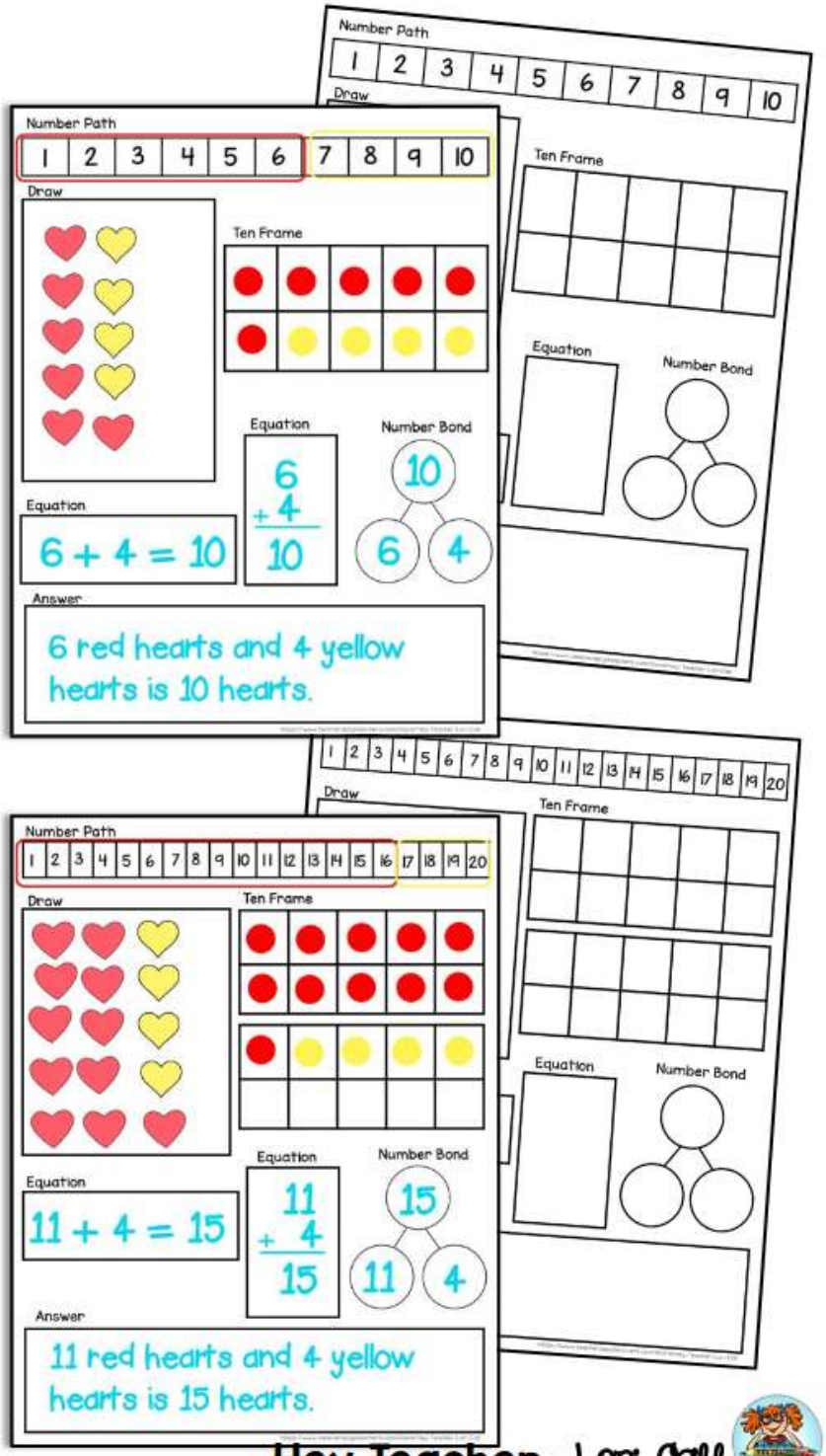


Image sourced from Google Images https://www.thoughtco.com/graphic-organizers-in-math-2312666

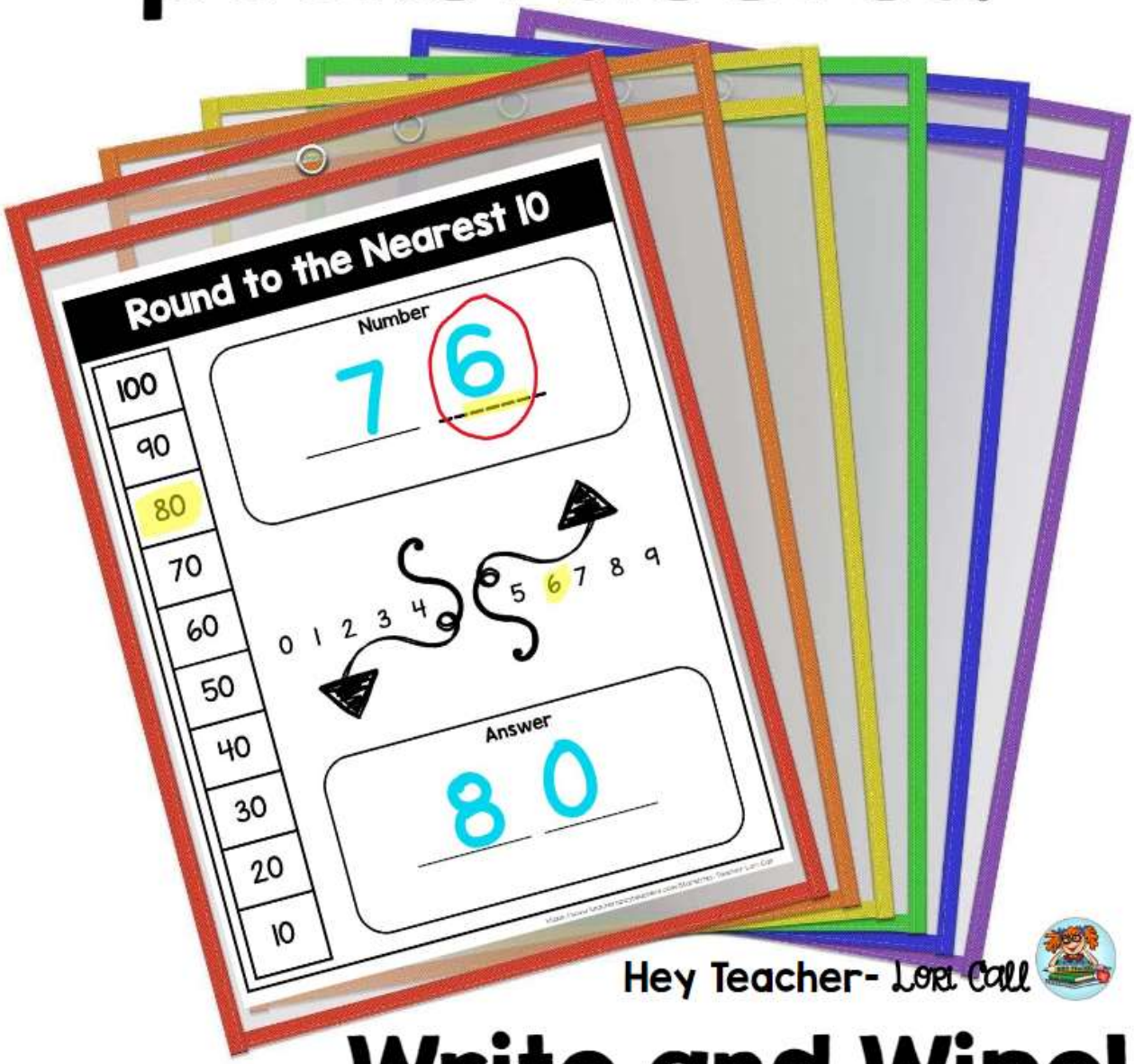
There are a variety of templates offering differentiation for your students.

For example: One template features a ten frame, a number path to 10, and number bond, while the other features two ten frames, a number path to 20, and a number bond.



Hey Teacher- Lori Call

Math templates fit into dry erase pocket sleeves!



Hey Teacher- Lori Call

Write and Wipe!

Number Path

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Draw

Ten Frame

Answer

Equation

https://www.teacherspayteachers.com/Store/Hey-Teacher-Lori-Call

Comparing Numbers

>	<	=
greater than	less than	equal

First Number

Second Number

Place Value			
thousands	hundreds	tens	ones

Place Value			
thousands	hundreds	tens	ones

_____ ◯ _____

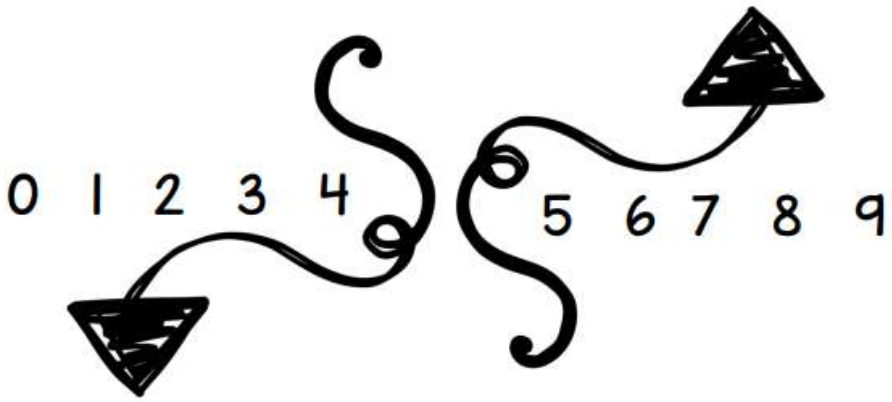
https://www.teacherspayteachers.com/Store/Hey-Teacher-Lori-Call

Round to the Nearest 100

1000
900
800
700
600
500
400
300
200
100

Number

_____ _____ _____

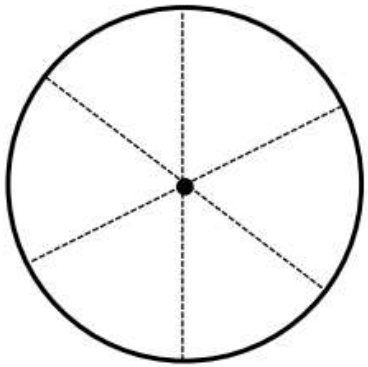


Answer

_____ _____ _____

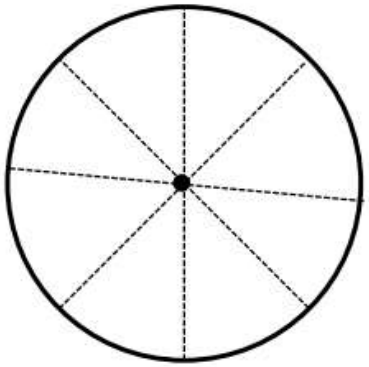
Fractions

Write and draw equivalent fractions.



_____ = _____

_____ = _____



_____ = _____

_____ = _____

Small Group Instruction

Instruction in small groups has been proven more effective than whole group instruction, particularly for students with disabilities. Groups that are smaller in size, such as 3 to 4 students, are even more effective than larger groups of 5 to 7 students. Within small groups, instruction is able to be tailored to the individual needs of the student. In small groups, you can:

- Pre-teach a concept that you will soon be going over in whole group
- Re-teach a concept a student needs more practice with
- Allow students to build confidence and relationships with students that are on or near their same academic level
- Provide feedback to students more frequently at an individualized level
- Personalize instruction that is tailored to the needs of students
- Provide necessary accommodations and modifications to the general education curriculum

Image sourced from Google Images https://www.corelearn.com/small-group-instruction-blog/

Forms to Plan and Organize Small Group Instruction

DATE: _____	INSTRUCTIONAL LEVEL: BELOW ON ABOVE
OBJECTIVE:	STANDARD:
TEXT:	
STRATEGIES/ACTIVITIES:	

INDIVIDUAL NOTES:

P C S ? A L	P C S ? A L	P C S ? A L
P C S ? A L	P C S ? A L	P C S ? A L
P C S ? A L	P C S ? A L	P - PIGGYBACK L- LISTENING C - CONNECTION A- AGREE S - TEXT SUPPORT ? - QUESTION

STUDENTS WHO NEED TO CONTINUE TO WORK ON THIS OBJECTIVE:

Creekside Teacher Tales

Small Groups ____/____/____

STUDENTS:		
BOOK & LEVEL:		
STRATEGIES:		

STUDENTS:		
BOOK & LEVEL:		
STRATEGIES:		

Creekside Teacher Tales

Creekside Teacher Tales

Small Group Notes

DATE:	BOOK:	LEVEL:
LESSON FOCUS:		
SKILLS PRACTICED:		

☐ USING BACKGROUND KNOWLEDGE	☐ PREDICTING WITH PICTURES	☐ USING BEGINNING SOUNDS	☐ REREADING FOR UNDERSTANDING
☐ CORRECTING ERRORS	☐ FLUENCY	☐ MAKING CONNECTIONS	☐ RETELLING

NOTES:		

FUTURE PLANS:

Manipulatives

Students with learning disabilities can struggles with abstract concepts. Math is an incredibly abstract concepts for these students. We use symbols to take on the meaning of words and require students to undergo a lot of conceptual thinking.

Concrete stage	Representational stage	Abstract stage
A mathematical concept is introduced with manipulatives; students explore the concept using the manipulatives in purposeful activity.	A mathematical concept is represented using pictures of some sort to stand for the concrete objects (the manipulatives) of the previous stage; students demonstrate how they can both visualize and communicate the concept at a pictorial level.	Mathematical symbols (numerals, operation signs, etc.) are used to express the concept in symbolic language; students demonstrate their understanding of the mathematical concept using the language of mathematics.

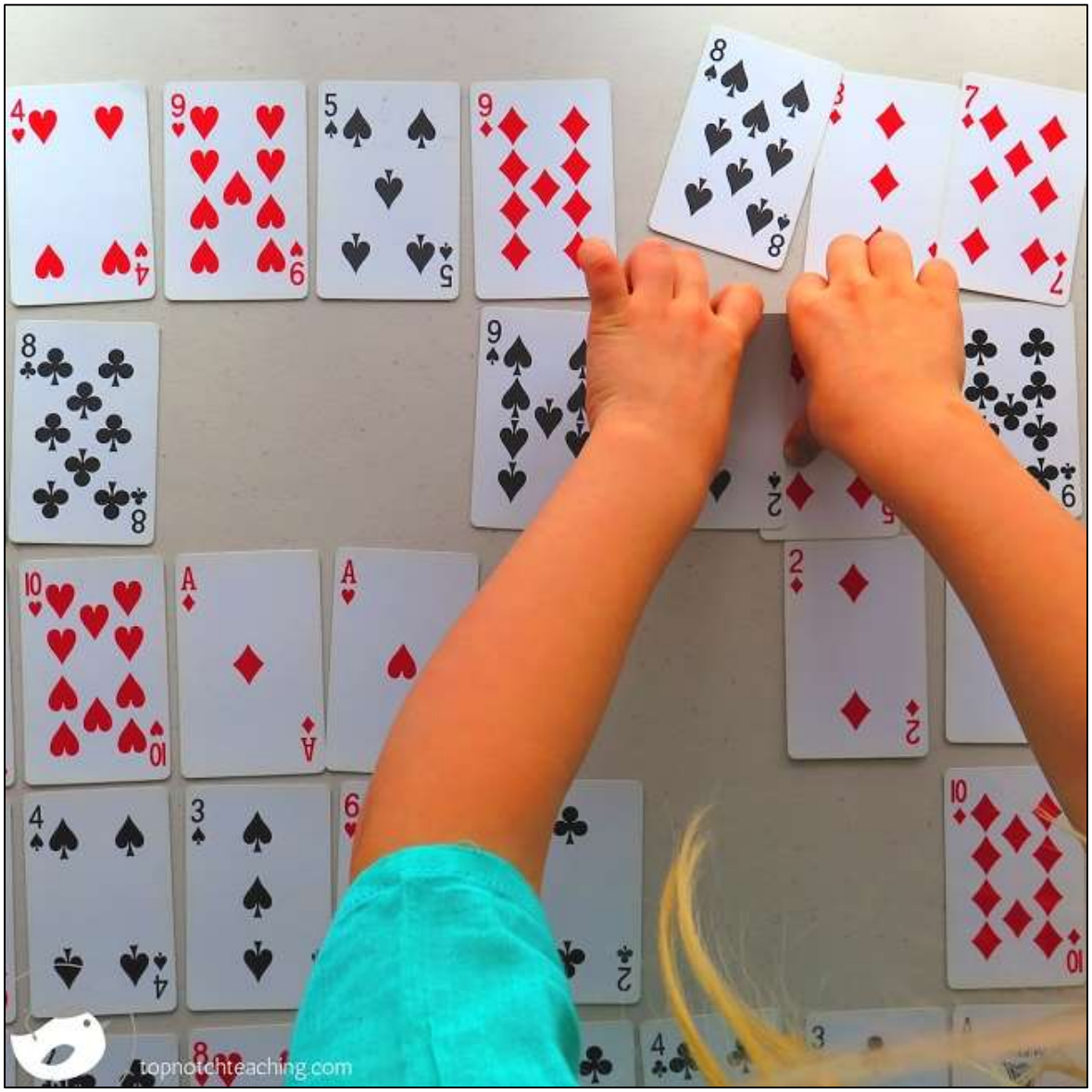
For students with learning disabilities, a concrete, tangible substance is needed to help make the connections from the real world to the world of mathematical understanding.

With manipulatives, students can see, touch, and manipulate numbers. Maniipulatives allow students to move from concrete experiences to abstract thinking. And reasoning.

Image sourced from Google Images https://www.hand2mind.com/pdf/learning_place/research_math_manips.pdf

Playing cards

Playing cards are an extremely versatile manipulative to keep in your classroom. Cards can be used for many different games and activities. These hands-on activities can help to build math fact fluency and place value skills in students with learning difficulties.



First to Add it Up

This card game is suitable for 2 - 4 players. You will need one deck of cards and pencil and paper to keep track of each player's scores. In this game, picture cards = 10 and ace = 1.

Instructions

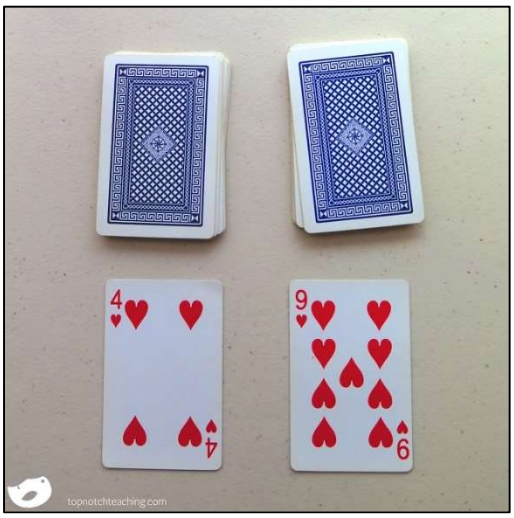
1. Shuffle the cards and have them in the center facing down.
2. One player draws 3 cards from the deck and lays them face up in the middle.
3. Players must add the 3 cards to find the total. The first player to call the total of the 3 cards is awarded that number of points.
4. No points are awarded for an incorrect answer.
5. Play continues with each player having a turn at revealing the 3 cards.
6. The winner is the player with the highest number of points when all cards have been turned over.

Variations

- You could draw any number of cards, for example 2, 4, or 5
- Use multiplication instead of addition

Fast facts

This card game is suitable for 2 players. You will need one deck of cards with the picture cards removed. In this game aces = 1.



Instructions

1. Deal out half the cards to each player with the cards facing down in a pile.
2. Both players take the card on the top of their pile and lay it face up in the middle.
3. The first player to call out the product of the two cards wins both cards.
4. If it is a draw the cards are left on the table. Turn 2 more cards over and whichever player wins, picks up all the cards in the middle.
5. The winner is the player with the most cards once all the card have been used.

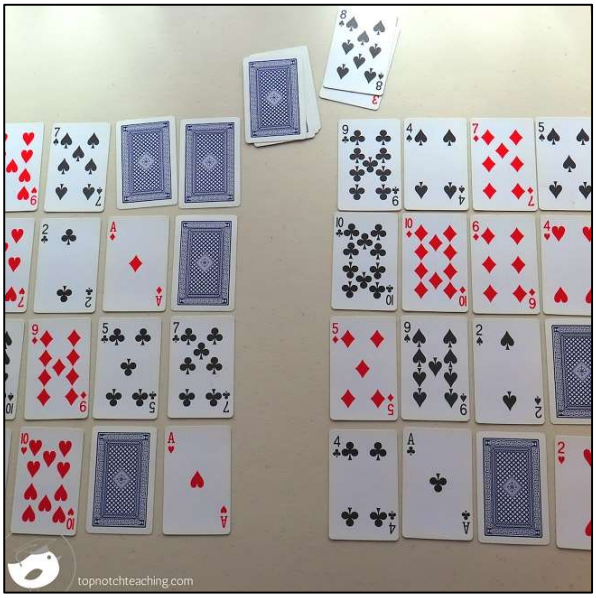
Variations

- You could also use addition or subtraction.
- If you are just introducing multiplication to your students you could remove the cards that are beyond their ability at the moment, such as 7, 8 or 9.

Card bingo

This card game is suitable for a small group. You will need two decks of cards. Remove the picture cards from both decks.

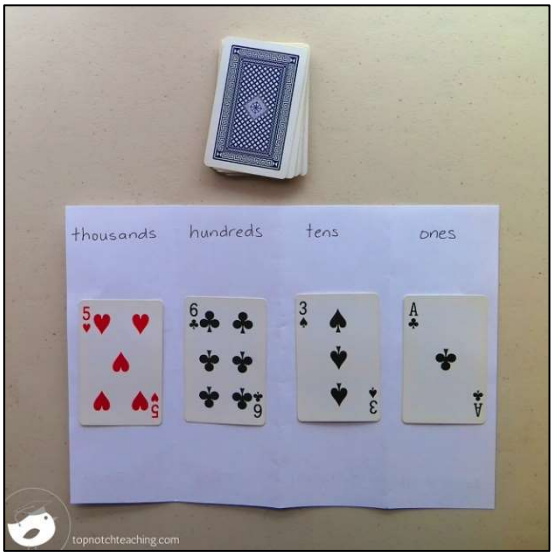
Instructions



1. Each player is dealt 16 cards. They must place the cards facing up in a 4 x 4 array.
2. The rest of the cards are face down in the middle.
3. One player takes on the role of the caller. That player flips a card over from the pile in the middle and calls out the number of the card, e.g. 6.
4. If the card called out matches one in the player's array, that player turns that card over so it is facing down. It doesn't matter what suit the card is.
5. The first player to turn 4 cards over in a row, either horizontally, vertically or diagonally, is the winner.

Place value cards

This is a card game for 2 players or a small group. You will need a deck of cards with the 10s and picture cards removed. The ace can be used as a 1 in this game. You will also need a sheet of paper split into 4 columns labeled thousands, hundreds, tens and ones.

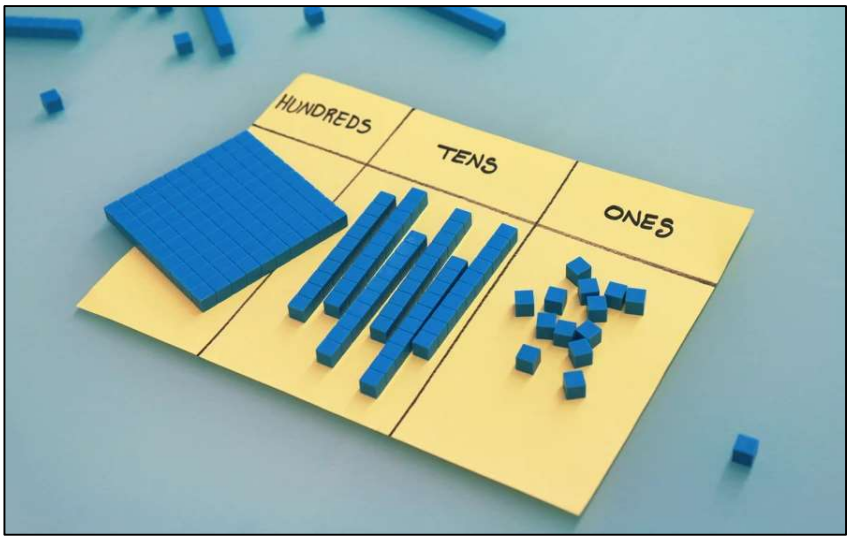


Instructions

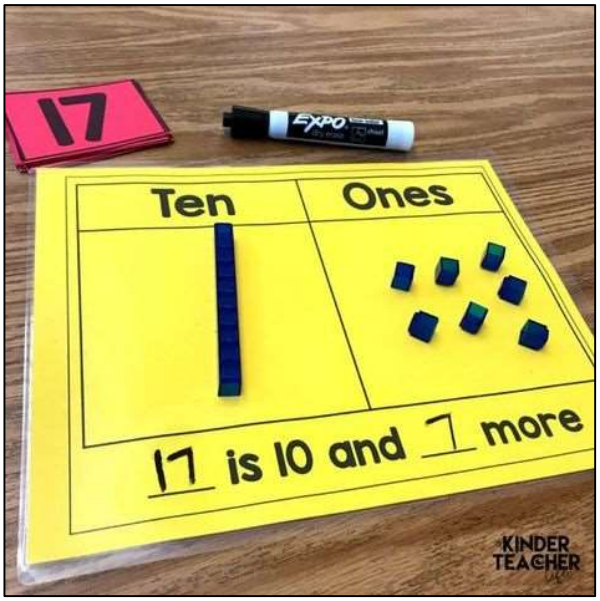
1. One student shuffles the deck of cards and places it in the middle face down.
2. Players take turns to pick a card from the top of the deck and turn it over.
3. The player must decide where to place the card, either in the ones, tens, hundreds or thousands place. They add the card to the column on their sheet of paper. The card is to be placed before another card is drawn from the deck.
4. Players keep adding cards to their sheet of paper until all columns are filled in. The winner is the player who produces the largest number.
5. In the example below 5 631 was produced using the cards, 5, 6, 3 and Ace. The best number that could have been formed was 6 5 31.

Place Value Blocks

Place Value Blocks (or "Base Ten Blocks") are a valuable tool for hands-on multisensory math instruction for students with disabilities. These blocks are made up of 100s (also known as "flats"), 10s (also known as "rods") and 1s (also known as "units"). Students can physically build numbers using these blocks to build place value understanding.

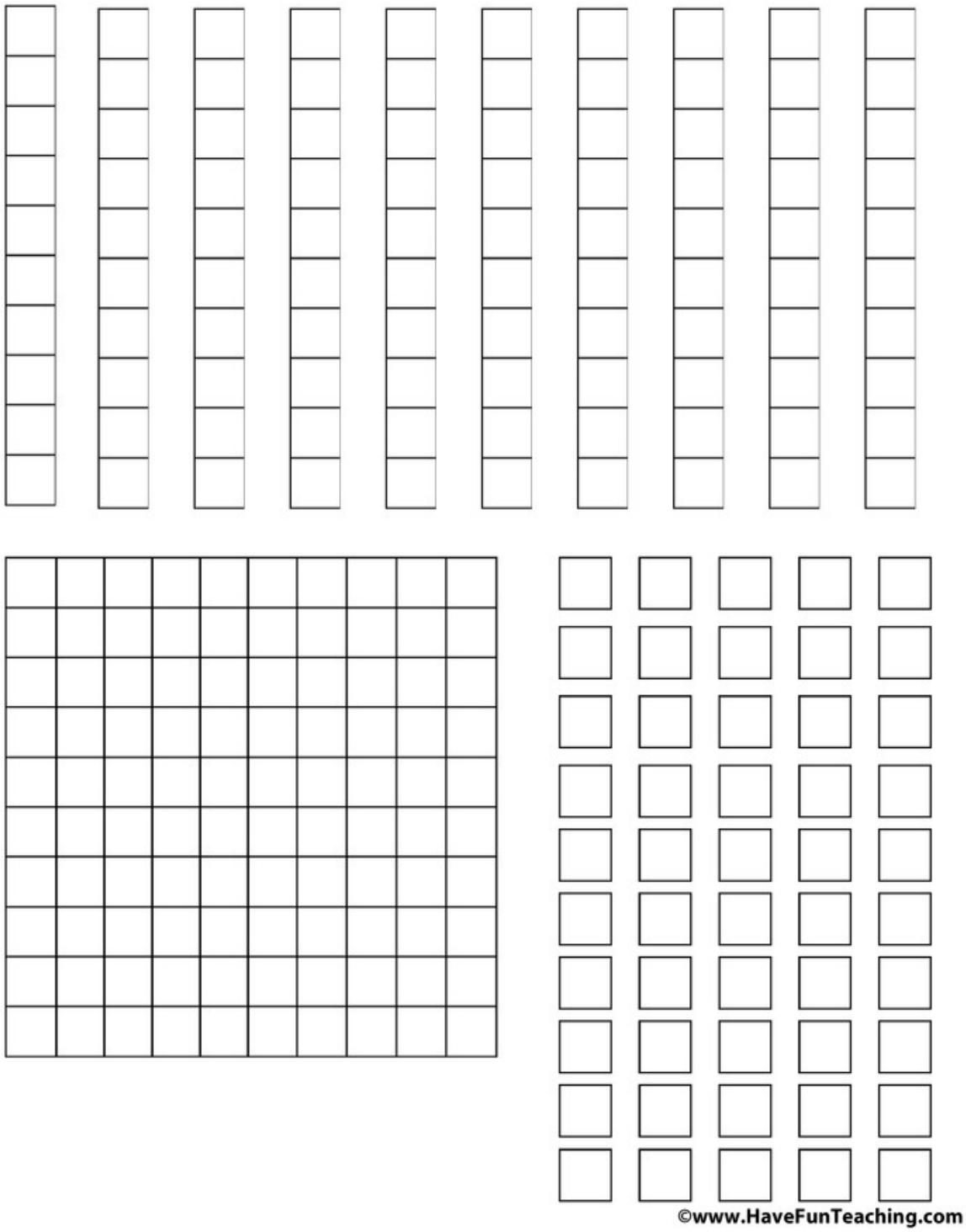


These blocks can also be used to create an understanding of decimals. They can perform different operations with the blocks, as well as find different patterns within numbers.



https://www.understood.org/en/school-learning/partnering-with-childs-school/instructional-strategies/10-multisensory-techniques-for-teaching-math

Skill – Base 10 Name: _____



This page can be copied, and the blocks cut out for your students to use

Intellectual Disability

"There is only one way to look at things until someone shows us how to look at them with different eyes."

-Pablo Picasso

What is it?

An Intellectual Disability impacts a student in both their academic knowledge, as well as their adaptive skills. Adaptive skills are the ability to conform to societal norms, such as communicating with peers or performing daily tasks independently. Academically, their skills are generally low across the board, rather than having areas of strengths and weaknesses.

What should I keep in mind?

Students with ID are more prone to have challenging behaviors. They are often unable to interact with peers in a socially accepting way, as well as adults.

A common misconception: Students with ID are not trying. They've been presented this material so many times-they just aren't trying!

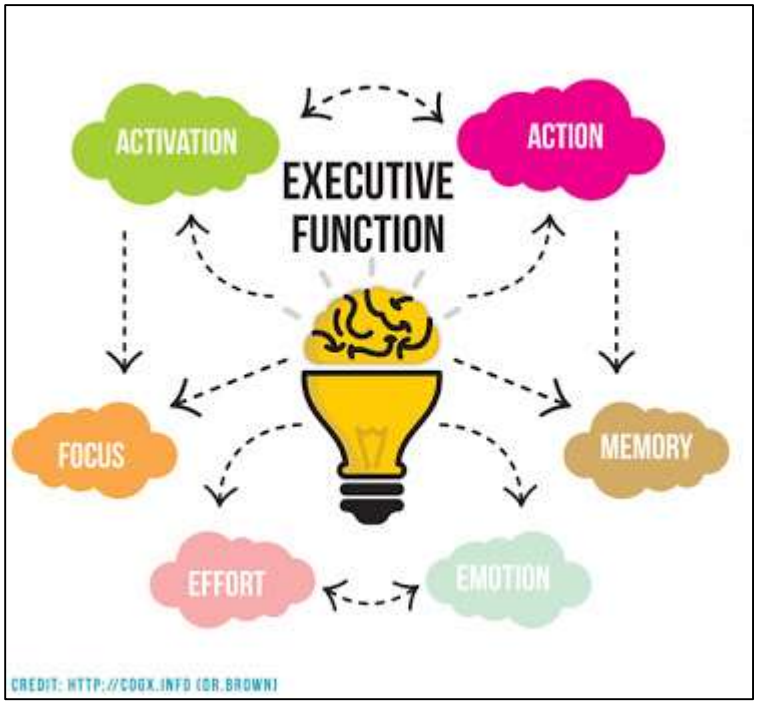
The Facts: Students with ID struggle with cognitive functioning and often do not learn from previous experiences.

https://www.understood.org/en/school-learning/special-services/special-education-basics/conditions-covered-under-idea

What difficulties might I see from my students?	
ACADEMIC DEFICITS	• Letter-sound relationships • Recalling phonics patterns • Recalling computation processes • Comprehension of text • Problem solving skills • Expression through writing
COGNITIVE DEFICITS	• Short term memory • Long term memory • Reasoning • Abstract thinking • Expression of self
RELATED DEFICITS	• Self-esteem • Coping skills • Socially immature or inept • Interpretation of social cues • Social withdrawal

Executive Functioning

Students with intellectual disabilities can have great difficulties with executive functioning. This includes skills such as planning, organization, time management, task initiation, working memory, metacognition, self-control, sustained attention, flexibility, and perseverance. While students will need support to strengthen these skills, the interventions that can be put into place can be both simple and effective to integrate into the classroom setting. This can be done through supports, games, and explicit teaching.



https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

Executive Functioning Skills

Planning is the ability to figure out how to accomplish our goals.

Organization is the ability to develop and maintain a system that keeps materials and plans orderly.

Time Management is having an accurate understanding of how long tasks will take and using time wisely and effectively to accomplish tasks.

Task Initiation is the ability to independently start tasks when needed. It is the process that allows you to just begin something even when you don't really want to.

Working Memory is the mental processes that allow us to hold information in our minds while working with it.

Metacognition is being aware of what you know and using that information to help you learn.

Self-Control is the ability to regulate yourself, including your thoughts, actions, and emotions.

Attention is being able to focus on a person or task for a period of time and shifting that attention when needed.

Perseverance is the ability to stick with a task and not give up, even when it becomes challenging.

Flexibility is the ability to adapt to new situations and deal with change.

Planning

Planning is the ability to figure out how to accomplish our goals. Students with poor planning skills often may jump into tasks without quite knowing what they are doing or what they need to accomplish. Contrastingly, they can also forget to start tasks that they have been given.

Strategies that can help:

- Making lists
- Writing short term goals
- Using a calendar or planner
- Homework logs
- Specific routines
- Daily schedules

Image sourced from Google Images https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

Homework Planner Example

name:_____ weekly homework planner

Every night homework assignments:

1. Read for at least 20 minutes
2. Practice sight words or fluency passage
3. Practice word work spelling words
4. Math written practice side B
5. Math fact homework side B

Train your brain! Get smarter and reach your goals!

Students will have these homework assignments due every Friday and will receive the packet for the next week as well. This way there is the chance to complete it on the weekend.

1. Math review homework packet
2. Leveled book club homework packet

new words!		
Put a ✓ each time you say a new word at home this week		

friday	Behavior:	I read for at least 20 minutes!	I practiced my sight words or my fluency passage!	I practiced my word work spelling words!	I finished my math written homework!	I finished my math fact homework!
	Parent initials:	Title:	List:	Activity:	#	#
		☐ Yes!	☐ Yes!	☐ Yes!	☐ Yes!	☐ Yes!
monday	Behavior:	I read for at least 20 minutes!	I practiced my sight words or my fluency passage!	I practiced my word work spelling words!	I finished my math written homework!	I finished my math fact homework!
	Parent initials:	Title:	List:	Activity:	#	#
		☐ Yes!	☐ Yes!	☐ Yes!	☐ Yes!	☐ Yes!

Homework planner example (continued)

tuesday	Behavior:	I read for at least 20 minutes!	I practiced my sight words or my fluency passage!	I practiced my word work spelling words!	I finished my math written homework!	I finished my math fact homework!
	Parent initials:	Title:	List:	Activity:	#	#
		☐ Yes!	☐ Yes!	☐ Yes!	☐ Yes!	☐ Yes!
wednesday	Behavior:	I read for at least 20 minutes!	I practiced my sight words or my fluency passage!	I practiced my word work spelling words!	I finished my math written homework!	I finished my math fact homework!
	Parent initials:	Title:	List:	Activity:	#	#
		☐ Yes!	☐ Yes!	☐ Yes!	☐ Yes!	☐ Yes!
thursday	Behavior:	I read for at least 20 minutes!	I practiced my sight words or my fluency passage!	I practiced my word work spelling words!	I finished my math written homework!	I finished my math fact homework!
	Parent initials:	Title:	List:	Activity:	#	#
		☐ Yes!	☐ Yes!	☐ Yes!	☐ Yes!	☐ Yes!

weekly homework due friday:

I finished my math and handwriting homework packet.	I finished my Book Club homework.
☐ Yes!	☐ Yes!

behavior color codes

gold! You should be very proud of me! I was a leader today!
green: I had a great day today! I was ready to learn.
yellow: I had an okay day. I needed some warnings today.
blue: I made choices that distracted my classmates today.
red: I made choices that were very disruptive today.

Agenda date:

Writing:

Reading:

Math:

Social Studies:

Science:

Homework:

Parent signature:

Agenda date:

Writing:

Reading:

Math:

Social Studies:

Science:

Homework:

Parent signature:

https://www.teacherspayteachers.com/Product/Daily-Agenda-Form-497479

Weekly Agenda

Week Of: _____

Upcoming Quizzes

Upcoming Tests

Monday

Math:

Spelling:

Reading:

Tuesday

Math:

Spelling:

Reading:

Wednesday

Math:

Spelling:

Reading:

Thursday

Math:

Spelling:

Reading:

Friday

https://www.teacherspayteachers.com/Product/Weekly-Student-Agenda-1373166

This Week

Monday	Tuesday
Wednesday	**Thursday**
Friday	

https://www.teacherspayteachers.com/Product/Agenda-Monday-through-Friday-Great-for-writing-homework-or-daily-assignments-1378017

	Monday	Tuesday	Wednesday	Thursday	Spelling Words
Reading					1._____ 2._____ 3._____ 4._____ 5._____ 6._____ 7._____ 8._____ 9._____ 10._____ 11._____ 12._____ 13._____ 14._____ 15._____ 16._____ 17._____ 18._____
Math					
Science					
Social Studies					
	Homework Completed ___yes ___no	Homework Completed ___yes ___no	Homework Completed ___yes ___no	Homework Completed ___yes ___no	**My behavior this week:** ____ Excellent ____ Good ____ Fair ____ Needs Improvement
	Parent Signature	**Parent Signature**	**Parent Signature**	**Parent Signature**	**Parent Signature**

https://www.teacherspayteachers.com/Product/Homework-agenda-1525763

TASK COMPLETION CHARTS

By: Brooke Reagan

First, I Need To:

1. _____ ☐
2. _____ ☐
3. _____ ☐
4. _____ ☐

ALL DONE RAISE HAND

WHAT DO I DO?

1. _____ ☐
2. _____ ☐
3. _____ ☐
4. _____ ☐

Specific Routines / Daily Schedules

Name: _____ Date: _____

Skill 1: I Can Plan

Before you start doing a job, you should stop and make a plan. A plan is a road map in your head that helps you get the job done right!

Let's think of your bus driver. He or she has to have a PLAN to help get from stop to stop. What would happen if your bus driver didn't have a plan? Someone might get left behind or dropped off at the wrong spot! A plan helps things go smoothly!

LET'S THINK

Why it is helpful to make a plan before starting something?

Name: _____ Date: _____

Skill 1: I Can Plan

There are many times you should plan. Some times you want to plan are before a test, before you clean your room, or before trying out for a sports team.

Can you think of MORE times you would want to PLAN?

LET'S PLAN!

Pretend you have homework to do. Make a list for how you can plan to do your homework well.

Name: _____ Date: _____

Skill 1: I Can Plan

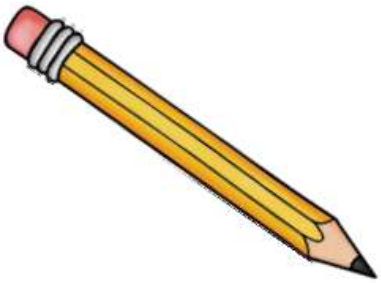
Color in what you would do to PLAN for each event.

1) Going to a friend's birthday party.		
Make a birthday card	Play a game	Do my homework
2) Cook something with your parents.		
Listen to music	Read the recipe	Read my book
3) Play a new game.		
Run outside	Read the directions	Clean my room
4) Write a letter.		
Eat a snack	Watch a new show	Think of what to write
5) Finish a science project.		
Check the directions	Write in my journal	Put music on
6) Ride your bike with some friends.		
Ask for help	Think of where to go	Find my pencil

I Can Plan

Listen to Directions

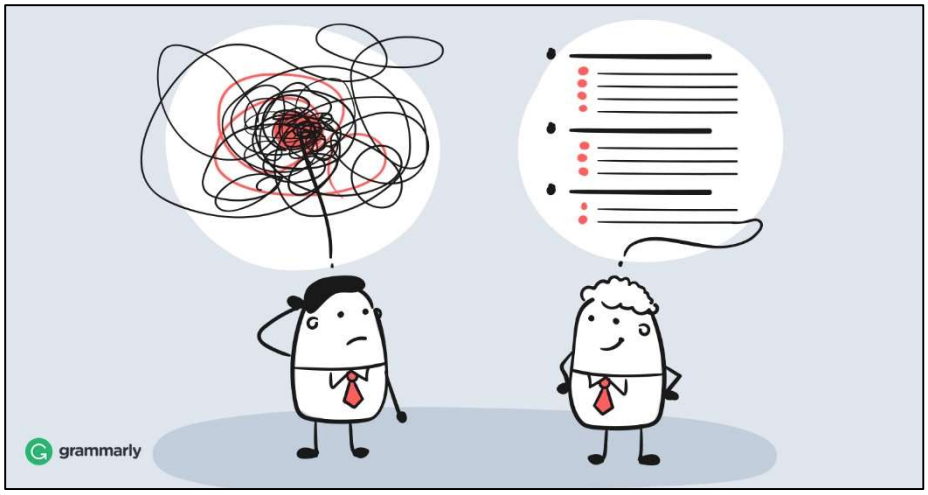
Stop and Think



Then I Can Start

Organization

Organization is the ability to develop and maintain a system that keeps plans and materials orderly. Students struggling with this skill may have messy desks, binders, lockers, and may have trouble turning in assignments due to their disorganization.



Strategies that can help:

- Explicitly teach how to organize spaces
- Check problem areas weekly with students
- Provide a photo example of how the area looks when organized
- Give extra time at the beginning and end of instructional periods to write down assignments, put away materials, and obtain new materials
- Provide organizational checklists

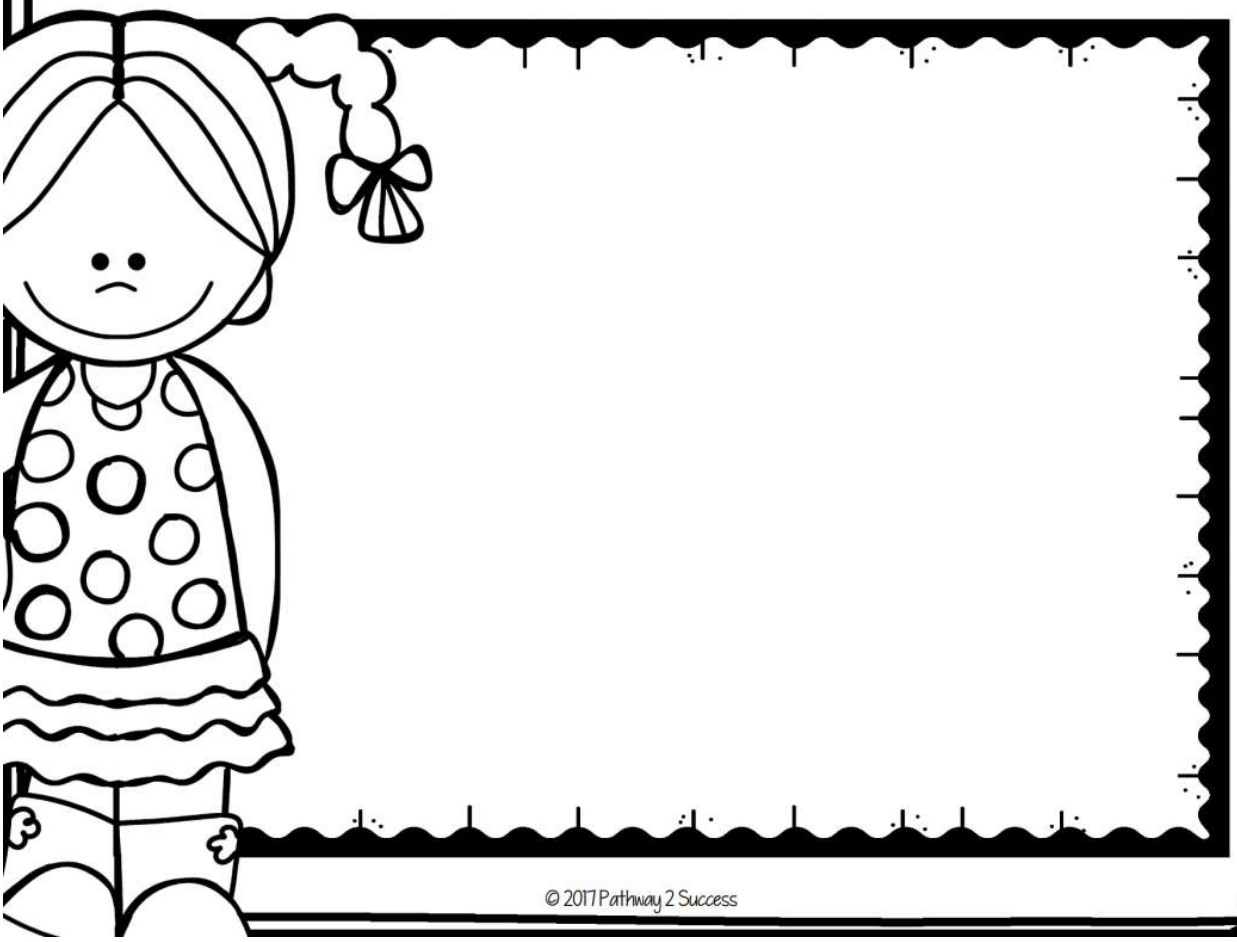
Image sourced from Google Images https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

Name: _____ Date: _____

Skill 2: I Can Organize

To organize something, you should follow some steps. The steps help you organize right the first time!

Let's think of cleaning your room! Imagine all the steps you need to really clean your room. List then in order below:

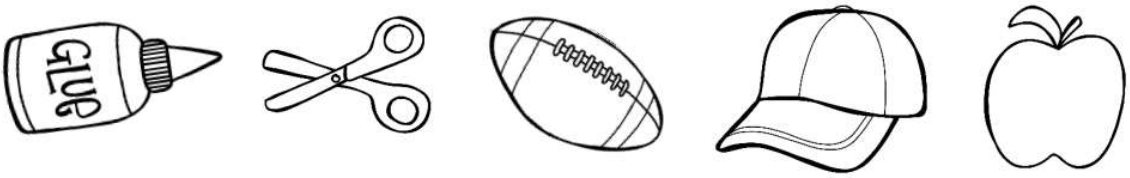


Name: _____ Date: _____

Skill 2: I Can Organize

Keeping your desk and workspace tidy is a very important job! Sam has a very dirty desk!

Inside his desk he found these things:



LET'S THINK

1) What is wrong with what's in Sam's desk?

2) What can Sam do to make his desk more ORGANIZED?

I Can Organize

Put Things Away

Stay Neat and Tidy

The "desk fairy" is a reward system implemented when you check student desks for organization. If a desk is organized, students earn a desk fairy coupon. This coupon can be later traded for a reward!


Desk
Fairy
APPROVED!


Desk
Fairy
APPROVED!


Desk
Fairy
APPROVED!


Desk
Fairy
APPROVED!


Desk
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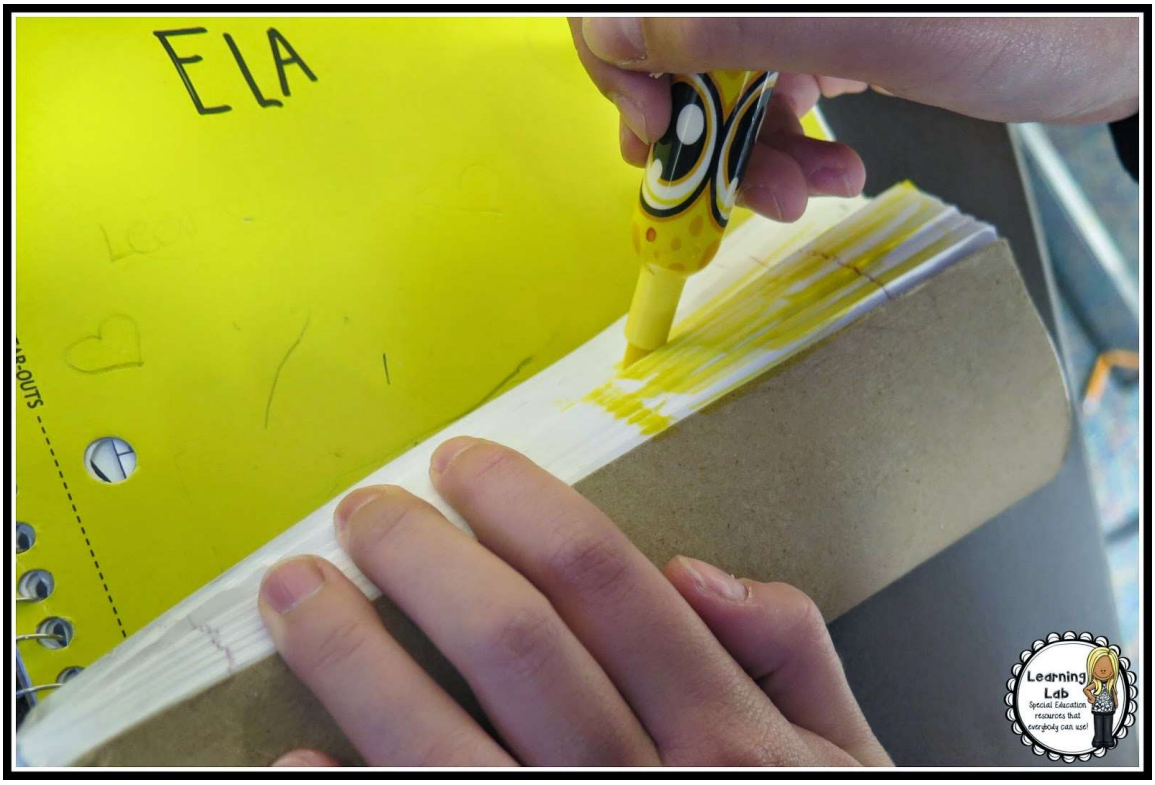
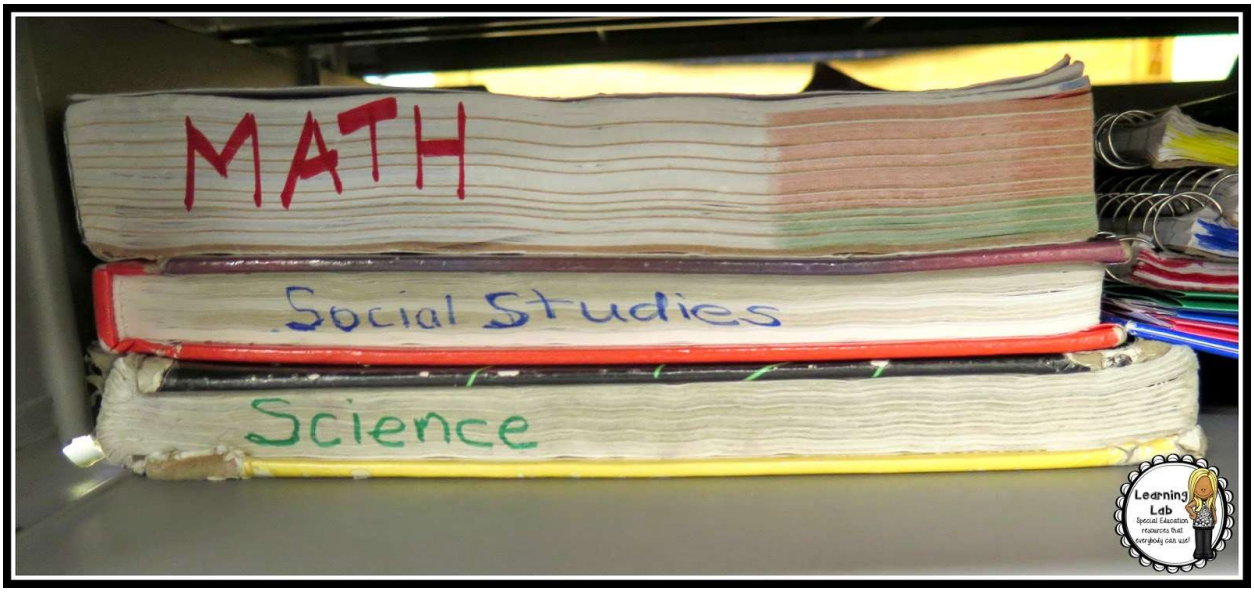
APPROVED!

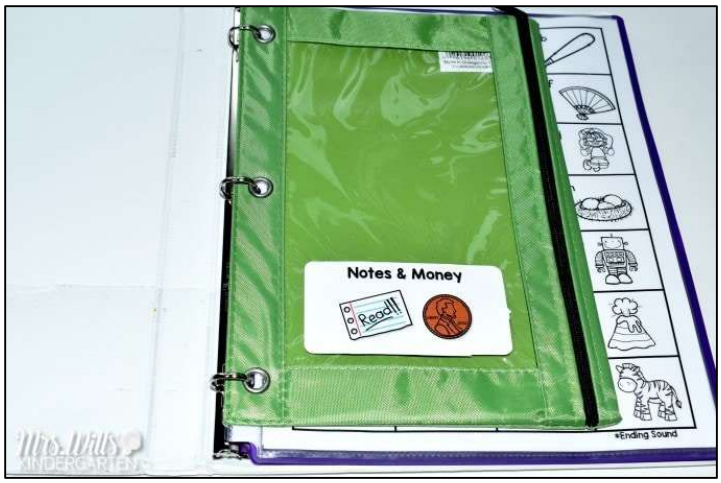


Inside desks, try creating a color code system. This makes it easier for students to quickly grab materials they need without having to pull out all of their notebooks and folders.



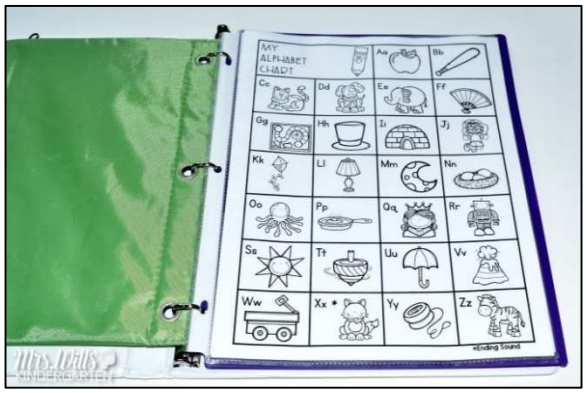
Alternatively, students can simply write the title of the subject on the ends of textbooks. This can be particularly helpful if students have textbooks that look similar to one another.

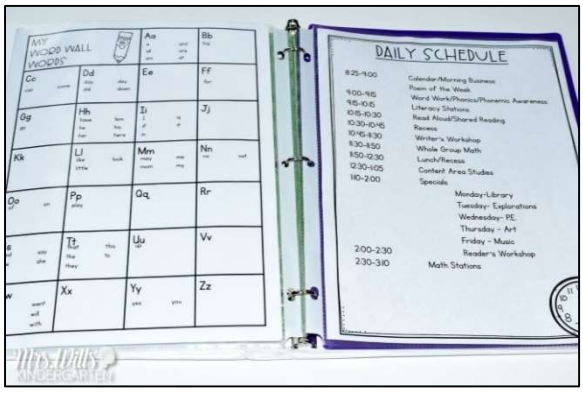
Binders can be used in elementary classrooms. For example, a take home binder can be created to keep students organized from school to home.



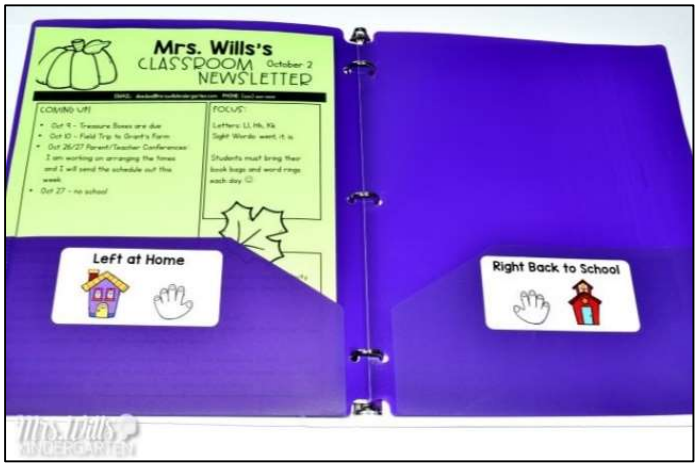
A pencil pouch inside this binder holds important notes that go home, and notes or money that may return to school.

Below, supports are provided in page protectors: an alphabet chart, a word wall, and the classroom daily schedule. Math and writing supports could be added here as well.





In the back, a folder is clearly marked which papers are to stay at home, and which are to return to school.



https://mrswillskindergarten.com/student-organization-starting-right-foot/

Time Management

Time management is having an accurate understanding of how long tasks will take and using time wisely and effectively to accomplish tasks. Students struggling with this skill might over-estimate or under-estimate time that it will take to complete a task. They may not use their time effectively, and in turn may miss critical deadlines.

Strategies that can help:

- Teach students to estimate time needed for tasks
- Set specific time-based goals
- Teach what tasks to prioritize
- Incorporate "mini deadlines" on larger assignments in the classroom

Image sourced from Google Images https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

Name: _____ Date: _____

Skill 3: I Can Use My Time Well

Using our time well means not wasting any time and getting work done right. It also means doing the most important tasks first.

Do YOU use your time well? Check off each box that is true about you.

- ❑ I listen to all directions first.
- ❑ I start my work right away.
- ❑ I don't let things distract me.
- ❑ I take my time and do things right the first time.
- ❑ I do my chores first before having fun.
- ❑ If I am really stuck, I ask for help from a friend or adult.
- ❑ I turn the TV or computer off to get my work done.

Name: _____ Date: _____

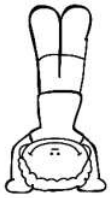
Skill 3: I Can Use My Time Well

When we use our time well, we have to choose what the BEST thing to do is. Read what each person is doing. Then, circle the BEST activity for each person to do.

1) Tanya needs to start her homework.



2) Ben's mom asked him to help with chores.


3) Juan has a baseball game to practice for.



4) Mandy is getting ready for bed.



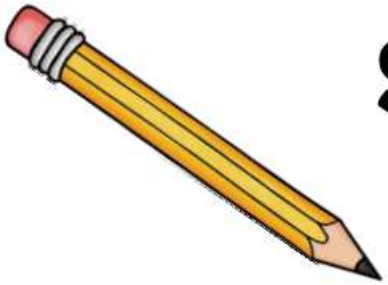
Name: _____ Date: _____

Skill 3: I Can Use My Time Well

LET'S THINK!

Imagine you are taking a math quiz. Draw a picture that shows you using your time well!

I Can Manage Time



Start Right Away

Use My Time Well

Keep Myself on Track

Visual timers allow students to see how much time has passed or how much time remains. This can help them to pace their work more accurately. There are many tangible versions that can be placed on student desks, or digital options that can be projected on a screen. One free website with a wide variety of timers is www.online-stopwatch.com

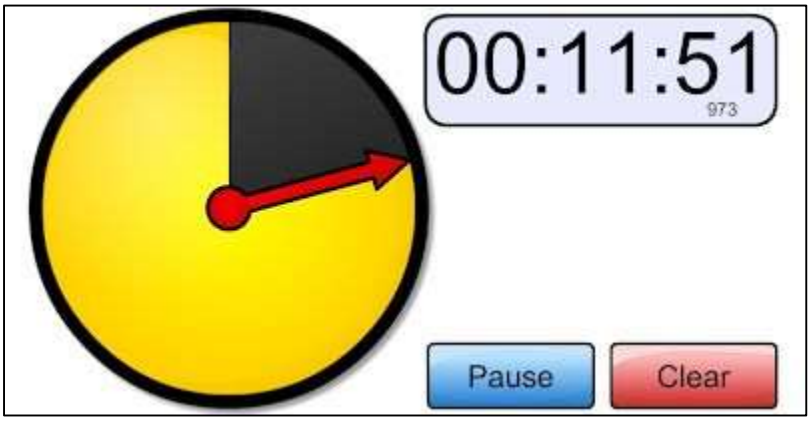


Image sourced from Google Images

https://proudtobeprimary.com/time-management-activities/?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_tribes&utm_content=tribes&utm_term=918821422_40330274_26469

Brain breaks are short activities (1-3 minutes) that get the students up and moving between different tasks. Additionally, students can benefit from these short breaks during tasks. This sets a good example to students that sometimes the best use of our time is a quick break so that we can return to a task with renewed efficiency.

Go Noodle is a free website with hundreds of brain breaks for students. Interactive videos encourage students to get up and move or ready their minds to concentrate for an upcoming lesson. Image sourced from Google Images https://proudtobeprimary.com/time-management-activities/?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_tribes&utm_content=tribes&utm_term=918821422_40330274_26469

Task Initiation

Task Initiation is the ability to independently start tasks when needed. This is the process that allows you to begin a task, even when you might not want to. Students struggling with this skill can struggle with feeling like they "can't" begin a task, even when they may have the desire. Many assignments turn up incomplete or may have never been started.

Strategies that can help:

- Make a specific list or plan for each assignment
- Chunk large assignments into smaller ones to make them more manageable tasks for students to complete

***For more resources, refer to the planning section of this handbook.*

Image sourced from Google Images https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

Name: _____ Date: _____

Skill 4: I Can Start Right Away

Starting our work right away helps us do a good job and finish our work sooner.

LET'S THINK

Below are pictures of kids just like you. Circle YES or NO to show if each kid is starting their work right away.

	It's time for Tim to read on his own.	YES	NO
	It's Anna's turn to set the table.	YES	NO
	It's time for Bella to start morning work.	YES	NO
	Joey's teacher asked him to clean up.	YES	NO

Name: _____ Date: _____

Skill 4: I Can Start Right Away

LET'S THINK

Imagine you are getting ready for school in the morning. Draw pictures in the boxes that show you getting ready right away!

Name: _____ Date: _____

Skill 4: I Can Start Right Away

LET'S THINK

Fill in the blanks with the right phrases about starting your work right away! Use the word bank or make up your own!

1) Starting my work right away helps me _____

_____.

2) I can feel _____ when I start

my work right away.

3) One task I can start right away is _____

_____.

Word Bank

get my work done	happy	proud
cleaning up after myself	starting my work	feel good about myself

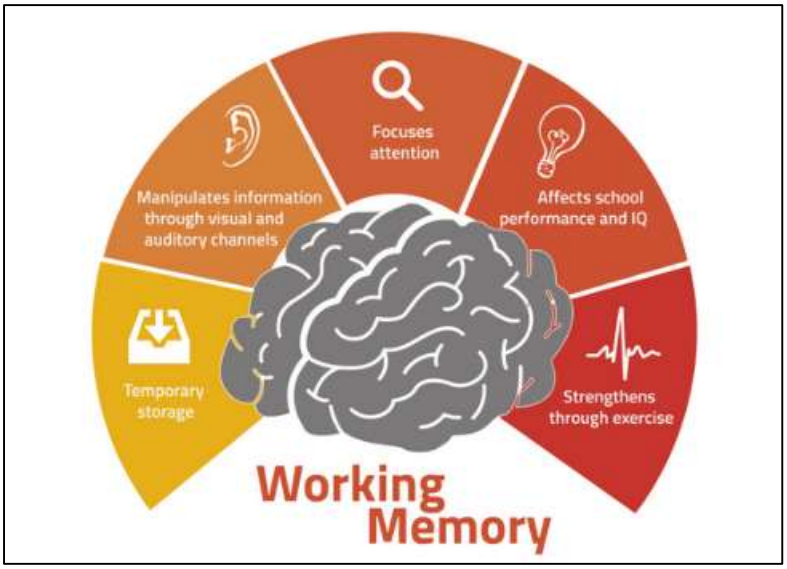
I Can Start Tasks

Listen to Directions

Begin My Work Right Away

Working Memory

Working memory is the mental processes that allow us to hold information in our minds while working with it. Students struggling with this skill will often have difficulty remembering directions that are said aloud. It will be difficult for them to complete things such as mental math and copying something from one page to another can be incredibly difficult.



Strategies that can help:

- Have students repeat auditory phrases back to you
- Support verbal directions and instruction with visuals
- Provide one-sided copies that can be laid out side-by-side rather than a page that needs to be flipped back and forth to find information
- Provide hands-on materials whenever possible

Image sourced from Google Images https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

Name: _____ Date: _____

Skill 5: I Can Use My Memory

Using your memory helps you remember important things. Our memory lets us keep track of things that happened to us, answers for a quiz, and even our friends' names!

LET'S THINK

Let's try using your memory by answering the questions:

What did you eat for dinner last night?

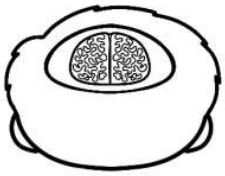
Where did you go for your last field trip?

What are your parents' birthdays?

Name: _____ Date: _____

Skill 5: I Can Use My Memory

We can train our brain to make our memory stronger! One way is by picturing or **visualizing** what happened.



LET'S THINK

Ask a partner about a fun vacation they went on. Draw pictures of their vacation in the box, but don't write any words. Then, see if you can repeat back what they told you about their vacation just with your pictures!

Name: _____ Date: _____

Skill 5: I Can Use My Memory

Another way to train your brain's memory is making up a mnemonic (nem-on-ick). This is just a long word for a pattern of letters that helps you remember something.

Let's say you need to remember how to spell the word "goes". You might come up with **G**randma **O**nly **E**ats **S**andwiches! It sounds silly, but will help you remember! That's a mnemonic!

LET'S THINK

Pick 3 words and come up with your own mnemonic for them!

YOUR WORD	MNEMONIC

I Can Use My Memory

Listen Carefully

Repeat It Back

Write It Down

Playing Card Games

Playing card games requires students to use their working memory in many ways. Not only do they have to remember

the rules of the game, but often it is necessary to think about the cards that others have played, the cards the student is holding, and/or what cards might be left. A simple deck of cards is very affordable and can fit almost anywhere.

Specialized card games, such as Uno, Skip-Bo, and others can be used as well, and often can be tied to several mathematical concepts in the process!

Imaged sourced from Google Images https://pridereadingprogram.com/4-fun-activities-to-boost-working-memory/?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_tribes&utm_content=tribes&utm_term=580048488_21662526_228213

Play Memory

Memory is a simple, powerful game that builds working memory skills. Pairs of cards are mixed up and placed face down in front of students. A student flips over two cards to make a match. If the cards are not a match, they are put back in the exact spot where they were originally. Students must remember where cards were to put them back, and remember cards that have been flipped over and their locations in order to make matches. The winner is the student with the most matches.

This game is incredibly versatile. What is on the cards that students flip over is entirely customizable-letters, numbers, patterns, sight words, spelling words, arrays, fractions-the possibilities truly are endless. Students can work on academic skills and build their working memory capacity in a single activity.

Imaged sourced from Google Images https://pridereadingprogram.com/4-fun-activities-to-boost-working-memory/?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_tribes&utm_content=tribes&utm_term=580048488_21662526_228213

Ist Grade Sight Word Memory Game

Words Included

1. after
2. again
3. an
4. any
5. as
6. ask
7. buy
8. could
9. every
10. fly
11. from
12. give
13. going
14. had
15. has
16. her
17. him
18. his
19. how
20. just
21. know
22. let
23. live
24. made
25. may
26. of
27. old
28. once
29. open
30. over
31. put
32. round
33. some
34. stop
35. take
36. thank
37. them
38. then
39. think
40. us
41. walk
42. were
43. when
44. your

Introduction

About this book:

This book contains a set of Grade 1 sight words cards for a matching game for use with children in Kindergarten (Prep) and Grade 1.

Directions for use:

Print 2 copies of each word and label page (label page is optional) using the duplex printing option on your printer. Laminate the pages for durability and then cut along the dashed lines to separate the cards.

Directions for game play:
Begin with the cards face-side down. Players take turns flipping over 2 cards at a time. If a match is made and the words are read correctly, the player gets to keep the cards and has another turn. If not, the cards are returned to the playing area, face-side down, and the next player has his turn. Game play continues until all the cards have been matched. The player with the most cards at the end of the game is the winner.

after	as
again	ask
an	buy
any	could

every	going
fly	had
from	has
give	her

him

know

his

let

how

live

just

made

may	open
of	over
old	put
once	round

some	them
stop	then
take	think
thank	us

walk

were

when

your

Place Value Memory Game

Materials:

- Place Value Concentration Cards – 1 set of 24 cards per partner set or group.
- Card Stock – With thicker paper, the numbers on the front of the cards will not be viewed through the back when placed facedown.
  HINT: Laminating the cards eliminates the need for copying and cutting the cards apart year after year.

Directions

1. Shuffle the place value cards.
2. Place the place value cards facedown on the desk in any order in a an array...4 x 6, 3 x 8, etc...
3. Students take turns flipping over any two cards and comparing them.
4. If the two cards match by showing the same form or value of a number, etc... the player picks up both cards and keeps them.

EXAMPLE: If one card shows "500,100" and the other card shows "500,000 + 100," the cards are not a match. The cards must specifically match each other. If one card shows "500,100," the other card must show "five hundred thousand, one hundred in standard form."

5. If the two cards do not show the correct place value pair, the player flips the cards facedown again, making sure the cards are placed in the same positions as before.
6. Students will continue taking turns until all 12 matches have been found.
7. After all matches have been made, the student with the largest number of cards is the winner.

Created by Lisa Courtney

PLACE VALUE MEMORY GAME

This number has a 8 in the hundreds place	This number has a 3 in the ten – thousands place	The value of the digit 3 in the number 7,349,401
242,861	38,985	300,000
The value of the digit 3 in the number 403,720	Five hundred thousand, one hundred in Standard Form	4,269 in Expanded Form
3,000	500,100	4,000 + 200 + 60 + 9

Created by Lisa Courtney

PLACE VALUE MEMORY GAME

Five hundred thousand, one hundred in Expanded Form	4,269 in Written Form	This number has a 7 in the thousands place
500,000 + 100	Four thousand, two hundred sixty-nine	107,218
The value of the digit 7 in the number 189,071	189,071 in Written Form	189, 071 in Expanded Form
70	One hundred eighty-nine thousand, seventy-one	100,000 + 80,000 + 9,000 + 70 + 1

Created by Lisa Courtney

Metacognition

Metacognition is being aware of what you know and using that information to help you learn. It is also sometimes referred to as "thinking about your thinking". Students that struggle with this skill may have a really hard time retaining information. They may not have any concept of how they performed on an assignment or what they need to study in order to prepare for a test.

Strategies that can help:

- Stop and answer "What did I just learn?"
- Model clear thought processes for students
- Have students plan their work and check in frequently on their own progress and learning as they go

***For additional resources, refer to the planning section of this handbook.*

Image sourced from Google Images https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

Name: _____ Date: _____

Skill 6: I Can Think About What I Know

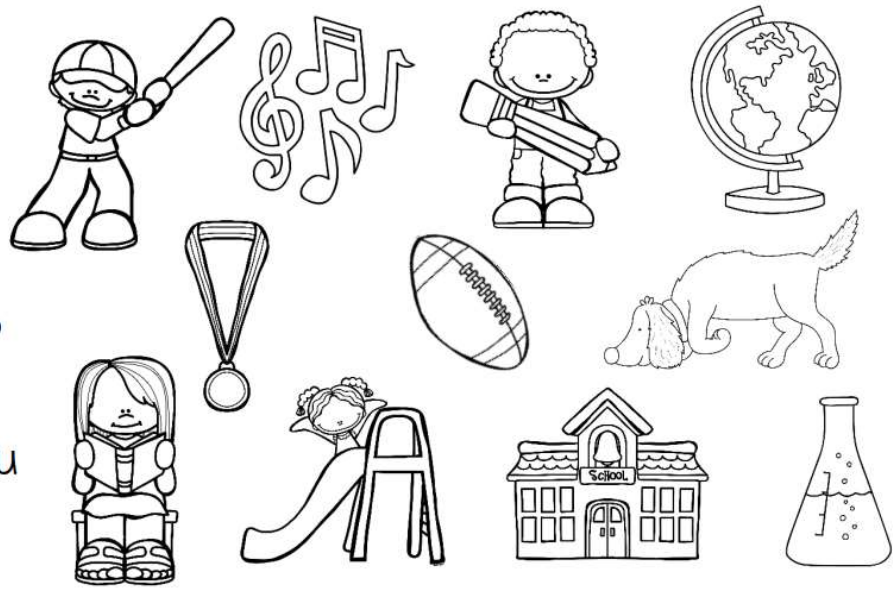
Thinking about what we already know helps us know what else we need to learn.

Let's say Angela is going to read about zoos. Before reading, Angela might think, "Well, I know about zoos. I have been to a zoo before." That will help Angela UNDERSTAND as she reads.

Everyone knows different things. We are not all the same, and that's a good thing! Angela might be an expert on zoos, but not on videogames.

LET'S THINK

What are YOU an expert on? Color the pictures you know a lot about!



Name: _____ Date: _____

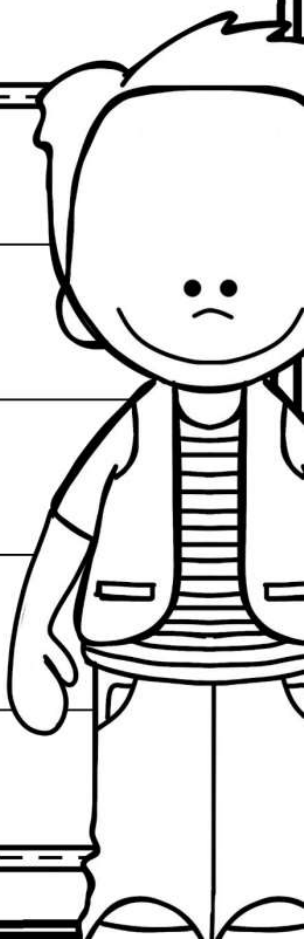
Skill 6: I Can Think About What I Know

Before learning about a new topic, it helps to thinking about what we already know. This helps to active our thinking.

LET'S THINK

Draw pictures or list some things you already know about each topic.

Firefighters	
The beach	
Dogs	
Books	
Baseball	



Name: _____ Date: _____

Skill 6: I Can Think About What I Know

Sometimes you know a lot about one topic. Other times you have a lot to learn! It's helpful to think about how MUCH you know before you start learning.

LET'S THINK

On a scale from 1 to 10, rate how much you know about each topic.

I don't know anything! — I know some things! — I'm an expert!

1 2 3 4 5 6 7 8 9 10

Outer space		Painting	
Our town		Tornadoes	
Basketball		Dogs	
Videogames		Cars	
Addition		Dance	

Name: _____ Date: _____

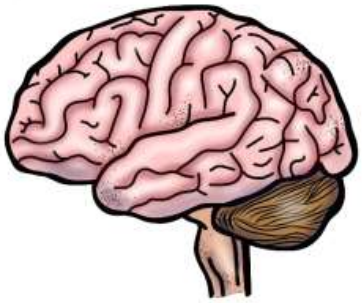
Skill 6: I Can Think About What I Know

Your teacher will pass out a paper that tells you a topic. On your own, write or draw everything you know about that topic!

LET'S THINK

Then, pair up with a partner who had the same topic. Were yours the same? Why or why not?

I Can Assess My Learning



Think About What I'm Learning

Check-In With Myself

Student Self-Assessment Rubric

Exceeds

I can do it without mistakes.
I can help others.

Proficient

I can do it by myself.
I make little mistakes.

Developing

Sometimes I need help.
I am starting to understand.

Novice

I can't do it by myself.
I don't understand yet.

SELF-ASSESSMENT

Name

How well do you understand? Check ONE box.

☐ 3 I've got this! I could teach it to others.

☐ 2 I'm starting to understand. I need more practice.

☐ 1 I don't understand YET. I need help.

Not So Wimpy Teacher

SELF-ASSESSMENT
Name
How well do you understand? Check ONE box.
☐ 3 I've got this! I could teach it to others.
☐ 2 I'm starting to understand. I need more practice.
☐ 1 I don't understand YET. I need help.
Not So Wimpy Teacher

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Name
How well do you understand? Check ONE box.
☐ 3 I've got this! I could teach it to others.
☐ 2 I'm starting to understand. I need more practice.
☐ 1 I don't understand YET. I need help.
Not So Wimpy Teacher

Self-Control

Self-control is the ability to regulate yourself, including your thoughts, actions, and emotions. Students struggling with this skill may call our frequently in class out of turn. They may struggle with anger management or controlling other emotions. Students may also act impulsively, causing them behavioral issues.

Strategies that can help:

- Provide lots of structure and routine in the classroom
- Teach students to use I-statements to express their emotions

***For additional resources, for impulsive students, refer to the Other Health Impairment section of this handbook.*

Image sourced from Google Images https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

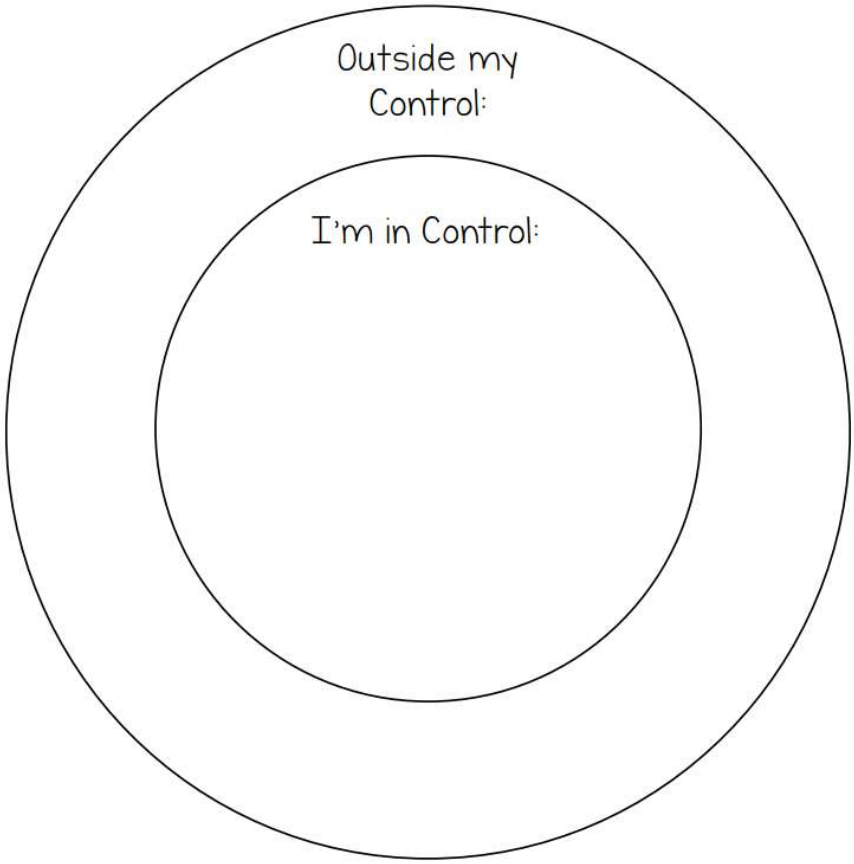
Name: _____ Date: _____

Skill 7: I Can Control My Body and My Words

Everyone is in control of their own words and actions. That means YOU are in control, too!

LET'S THINK

Use the word bank to write in what YOU are in control of:



WORD BANK:

- My words
- My actions
- My friends
- My feelings
- My ideas
- Other people's actions
- Other people's words

Name: _____ Date: _____

Skill 7: I Can Control My Body and My Words

Our actions and words affect how others feel. Our words and actions can help others feel good when we say or do nice things, like say "thank you" and wave to others. Our words and actions can also make others feel bad if we say or do mean things. Some things like mean words or hitting others will hurt other people. So, let's be KIND to others!

LET'S THINK

Draw or make a list of at least 5 KIND things you can do or say:

Name: _____ Date: _____

Skill 7: I Can Control My Body and My Words

Everyone feels mad or upset sometimes. You might feel mad when you lose something or if you have to stop playing. It's normal to feel mad sometimes!

There are healthy ways to deal with being mad. These are called coping skills. Our coping skills are things we do to help us feel calm.

LET'S THINK

Coping skills are listed below. Color in what coping skills you might do to help you feel better if you feel mad or upset.

Listen to music	Talk to a friend	Close your eyes
Picture a stop sign	Get a drink of water	Think about something happy
Read	Sit quietly	Ask for help
Write	Talk to an adult	Count to ten
Play a game	Breathe slowly	Draw or color

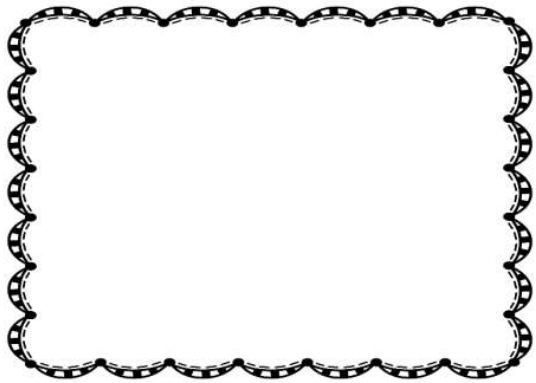
Name: _____ Date: _____

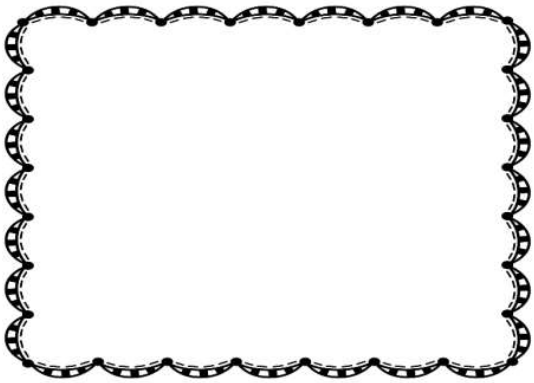
Skill 7: I Can Control My Body and My Words

To be safe, we need to also keep our hands to ourselves. That means not touching other people or their things.

LET'S THINK

Look at the pictures. Decide if the kids are keeping their hands to themselves or not.





I Can Use Self-Control

Stop and Think

Keep Hands to Self

Wait My Turn

Sustained Attention

Attention is being able to focus on a person or task for a a period of time and shifting that attention when needed. Students struggling with this skill may struggle to pay attention in class. They may miss out on important directions and appear to be dazing off when they should be working.

Strategies that can help:

- Help students become aware of their personal distractors and work with them to reduce
- Incorporate focus games such as Simon Says for brain breaks

***For additional resources, for inattentive students, refer to the Other Health Impairment section of this handbook.*

Image sourced from Google Images https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

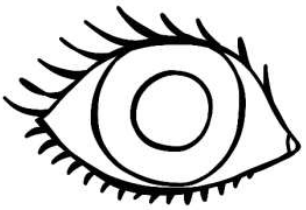
Name: _____ Date: _____

Skill 8: I Can Pay Attention

Paying attention means watching and listening to what we need to at the moment. We need to pay attention to our teacher to know what to do. We also want to pay attention to our friends when they are talking.

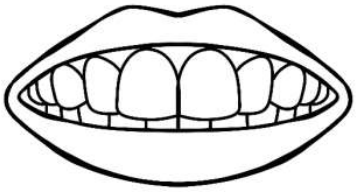
LET'S THINK

Draw the same picture to the right to show that you know how to pay attention.



Eyes watching...

Ears listening...



Quiet mouth...

Name: _____ Date: _____

Skill 8: I Can Pay Attention

Sometimes things might distract you from your work. One example is a cell phone. A cell phone is fun but it is probably not helping you with your work! It's good to put distractions away or ignore them when trying to work.

LET'S THINK

Color the pictures that might be distracting when you are trying to work!

Name: _____ Date: _____

Skill 8: I Can Pay Attention

Paying attention helps us understand the directions and know what to do.

LET'S THINK

Look at the pictures below. Tell if each person if paying attention or not. Explain how you know!

I Can Pay Attention

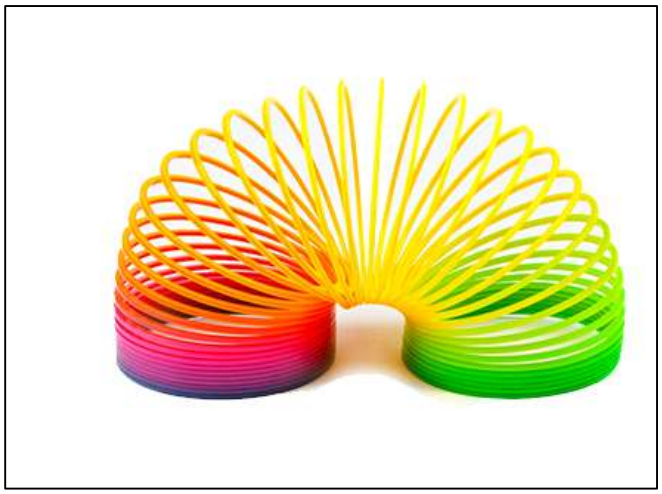
Eyes Watching

Ears Listening

Quiet Mouth

Flexibility

Flexibility is the ability to adapt to new situations and deal with change, Students struggling with this skill can have a very difficult time if there is a change in their schedule. This can lead to emotional outbursts and an inability to cope. Things that may be hard for these students to handle could include having a substitute teacher, going on a field trip, or having a school assembly that interrupts the routine of the day.



Strategies that can help:

- Prepare students ahead of time for changes that may occur
- Teach perspective and different points of view
- Have students perform activities that take them out of their comfort zone frequently
- Make changes in their schedule more regular to increase their flexibility (such as not always having the same partner, or changing seats in the room regularly)

Image sourced from Google Images https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

Name: _____ Date: _____

Skill 9: I Can Be Flexible

Being flexible means being able to deal with changes and think quickly to make good decisions. It is being able to solve your problems as they pop up!

LET'S THINK

Think of a time when something didn't go as planned for you. How did you handle it? What did you do? Write or draw your story below:

Name: _____ Date: _____

Skill 9: I Can Be Flexible

Part of being flexible is being able to deal with changes and things that don't go our way.

LET'S THINK

Read about each person and how they are dealing with change. How would you feel in their shoes? What each person do to deal with the change?

Sophie's favorite teacher will be out for a month. She doesn't like the new teacher.

Isaac just found out his best friend is moving far away.

Name: _____ Date: _____

Skill 9: I Can Be Flexible

Some changes are easier to deal with than others. Let's take a look at some changes you might have to go through sometimes.

LET'S THINK

On a scale from 1 to 10, rate how comfortable you might be with each change.

I can't do this alone. — I have some trouble but I'm okay. — No problems! I've got this!

1 2 3 4 5 6 7 8 9 10

Having a substitute teacher		Gym day switched	
Moving to a new town		Change in lunch time	
Moving to a different class		Lose your favorite pen	

I Can Be Flexible

Try New Things

Deal With Changes

Go With the Flow

Perseverance

Perseverance is the ability to stick with a task and not give up even when it becomes challenging. Students struggling with this skill can give up on tasks and assignments before they are completed. They may ask for help before they have tried strategies of their own, which can lead to dependence upon support.

Strategies that can help:

- Teach strategies for what to do when a student is "stuck"
- Practice tasks that require perseverance such as brain teasers, puzzles, or riddles

Image sourced from Google Images https://www.thepathway2success.com/executive-functioning-strategies-for-the-classroom/

Name: _____ Date: _____

Skill 10: I Can Work Through Challenges

Working through challenges means not giving up, even when something is hard! Working through is good because it makes us smarter and stronger!

LET'S THINK

When you come across something tough, what can you do? Check off each strategy as you read.

You can:

- ❑ Check the directions again.
- ❑ Stop and think, "What should I do?"
- ❑ Look around and see what others are doing.
- ❑ Try to move on and come back later.
- ❑ Ask a friend for help.
- ❑ Ask an adult for help.

Name: _____ Date: _____

Skill 10: I Can Work Through Challenges

Challenges can be lots of different things. You might have a tough math test, a fight with a friend, or having to move to a new school. Those are all challenges.

LET'S THINK

Tell about a time you had a challenge that you worked through.

Name: _____ Date: _____

Skill 10: I Can Work Through Challenges

Let's say the Perseverance Pledge! Read the pledge below on your own. Then, raise your right hand and say it aloud to pledge to work through your challenges!

The Perseverance Pledge

I promise to work hard
And always try my best
I will not give up
No matter how hard the test
Every single challenge
Just helps me grow
And the more I learn
The more that I will know
So I pledge to keep going
Even when it's tough
I know that I can do it
Only my best is good enough

Name: _____ Date: _____

Skill 10: I Can Work Through Challenges

Riddles are a FUN way to practice working through challenges. Read and riddle and try to answer it!

1. What goes up but never comes down?	
2. What building has the most stories?	
3. What gets wet while it's drying?	
4. How many months have 28 days?	
5. What has hands but just can't clap?	
6. What five letter word becomes shorter when you add two letters to it?	
7. What do you have to break before you use it?	
8. What has a bunch of keys but can't open a door?	

Name: _____ Date: _____

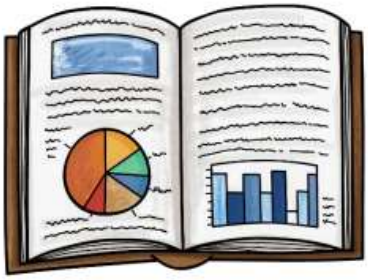
Skill 10: I Can Work Through Challenges

Sentence Scrambles are a FUN way to practice working through challenges. Read unscramble the words on your own!

1	rbian	
2	ngealchle	
3	rtersma	
4	rningale	
5	oostb	
6	ormemy	
7	ingpnnla	
8	ganorize	
9	ingnkthi	
10	cnghea	

I Can Persevere

Work Hard



Use My Strategies

Achieve My Goals

Other Health Impairment

(Attention Deficit/ Hyperactivity Disorder)

"PEOPLE WITH ADD [ADHD] OFTEN HAVE A SPECIAL 'FEEL' FOR LIFE, A WAY OF SEEING RIGHT TO THE HEART OF MATTERS, WHILE OTHERS HAVE TO REASON THEIR WAY METHODICALLY."

-EDWARD M. HALLOWELL, M.D.

What is it?

Attention Deficit/Hyperactivity Disorder is a condition caused by differences in the brain. ADHD impacts the way students can focus, think before acting, or keep their bodies still. ADHD student's executive functioning skills. Students may struggle to get organized, follow directions, or manage their emotions due to this deficit.

What should I keep in mind?

Students with ADHD have brains that do not process dopamine, the "feel good" chemical, appropriately, inhibiting their response to the environment around them.

Most common misconception: Students with ADHD are lazy and can do better-they simply aren't willing to try.

The Facts: Students with ADHD are often trying as hard as they can to stay focused and keep their impulses under control.

https://www.understood.org/en/school-learning/special-services/special-education-basics/conditions-covered-under-idea

What difficulties might I see from my students?	
INATTENTION	• Carless mistakes • Forgetfulness • Easily loses items • General disorganization • Avoidance of tasks requiring them to attend • Wandering minds • Hyper-focusing on preferred activities or small details
HYPERACTIVITY	• Difficult to remain seated • Difficulty completing routines • Difficulty playing appropriately
IMPULSIVITY	• Wandering from designated area • Incessant talking • Blurting out during inappropriate times
ACADEMIC DEFICITS	While there are no specific academic deficits linked to ADHD, students with inattention often miss vital parts of instruction, causing them to perform poorly in one or more academic areas. They also can pull away from academics that require sustained amounts of attention, causing them to struggle.

Flexible Seating

Flexible seating options within the classroom are becoming more and more common. Providing seating that gives students opportunities for movement throughout their day can increase their attention capacity and enable them to gain more from instruction in the classroom than they would normally if attempting to sit still or being constantly reprimanded for being out of their seat.

https://jillianstarrteaching.com/supporting-students-with-adhd/

Stability Balls

Stability balls (also known as "yoga balls" or "exercise balls") are a great option for movement. However, some students can struggle with just how much movement they provide within the classroom. If choosing to allow students to use balls, some suggestions on usage are:

- Using stabilizers such as rings or durable stands made to be used as students sit on the balls (see photo example)
- Fill the inside of the balls with some playbox sand. This can help to weigh them down and keep them from rolling about the classroom
- Give students clear and explicit rules for using the balls, both for their safety and as to not disturb others when they are using the balls

https://jillianstarrteaching.com/supporting-students-with-adhd/

Standing

Sometimes, students don't need to stay seated at all. Sitting for seven hours a day is not something that anyone is accustomed to doing.

Allowing students a place to get up and have their legs outstretched might be the perfect fit for them. There are specialty desks and tables that can be purchased, but most classroom desks will raise up a fair amount. Desks can also be placed on bed-risers to make them a suitable height for students to stand and work.

https://jillianstarrteaching.com/supporting-students-with-adhd/

Thera-band

Thera-Bands can be used for wrapping around the legs of chairs. Having a band for a student with wiggly legs can keep them from kicking their desk or other students. While sitting in their chair, they are able to push against the band with their feet-a deceptively challenging task. They also can bounce their feet off the tension the band creates. This is a good way for students to expend energy without disturbing others.

https://jillianstarrteaching.com/supporting-students-with-adhd/

Wobble Cushion

Wobble cushions are made of thick, durable rubber. They inflate with air and have one side that is quite bumpy, while the other is relatively smooth. The different textures allow sensory input for those that may need it. The inflation of the disc allows a lot of movement with a very small shift in balance. This allows a student to feel like they are moving a lot without bothering those around them. The cushions can be used in chairs or on the floor and are easily accessible by students due to their mobile nature.

https://jillianstarrteaching.com/supporting-students-with-adhd/

Wobble Stools

Wobble stools are very similar to wobble cushions in that they provide the feeling of a lot of movement with a very small shift in balance.

Students sit on a stool that has a rounded bottom. Students must keep their feet on the floor to stabilize themselves. These stools allow students to rock and wiggle back and forth while attending to the task at hand.

https://jillianstarrteaching.com/supporting-students-with-adhd/

Sensory Path

Sensory oaths are a tool that has grown in popularity over the last few years. These interactive paths, located in hallways, on playgrounds, or in other parts of the school, provide students an opportunity to release pent up energy while building gross motor skills such as balance, coordination, and spatial awareness.

https://fitandfunplayscapes.com/blogs/fit-fun-blog/sensory-paths-what-the-heck-are-those

Printable Sensory Walk

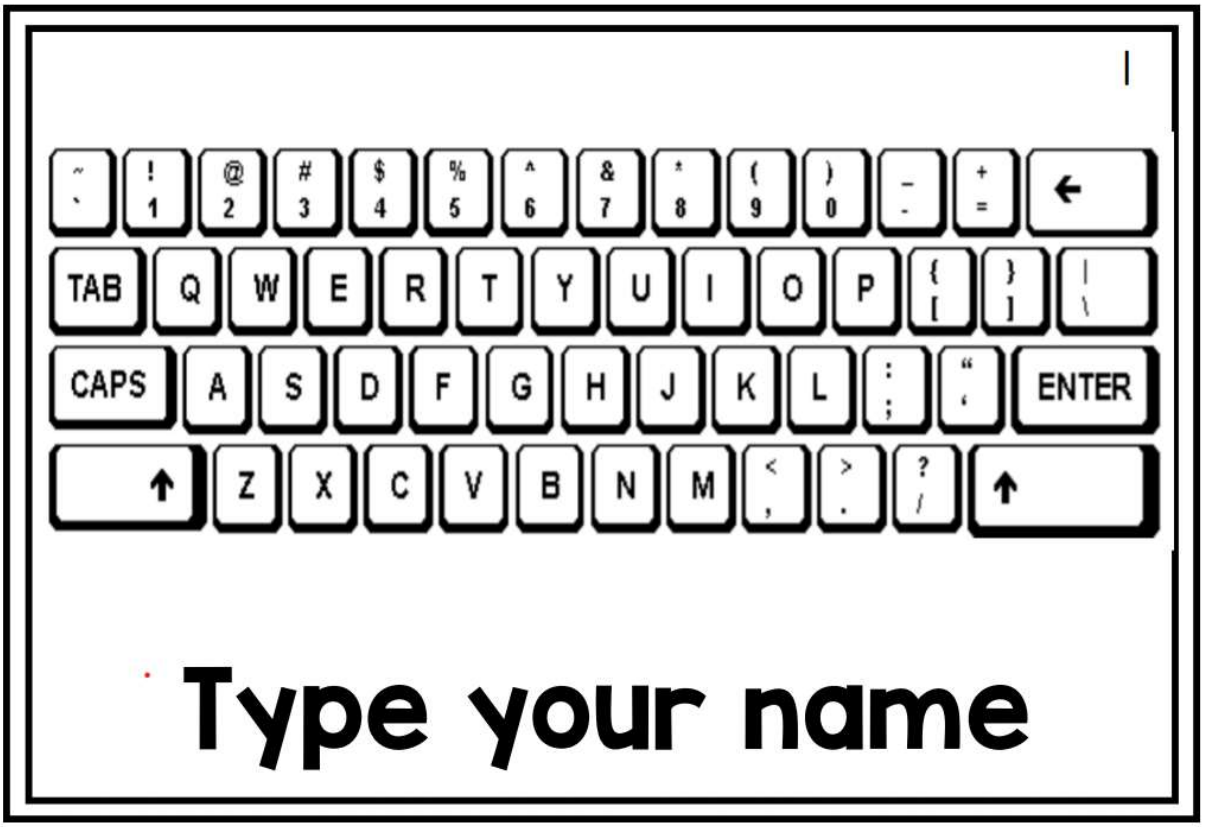
How to Use

Using these At Home Sensory Walk, kids will be able to move their body to support their sensory and movement needs.

Our kids NEED to move their bodies. With this activity, all you need to do is print and place around your house to get your kids up! You can follow the numbers I gave you or create your own path! Each card has a direction that will help your kids get out the wiggles!

Many of our kids have sensory needs that are accessed in the classroom. This activity will help your kids still get the support that they need when emotions get high. The predictability of the path and the different activities will help your kids calm down and feel prepared.

https://www.teacherspayteachers.com/Product/At-Home-Sensory-Walk-5339637



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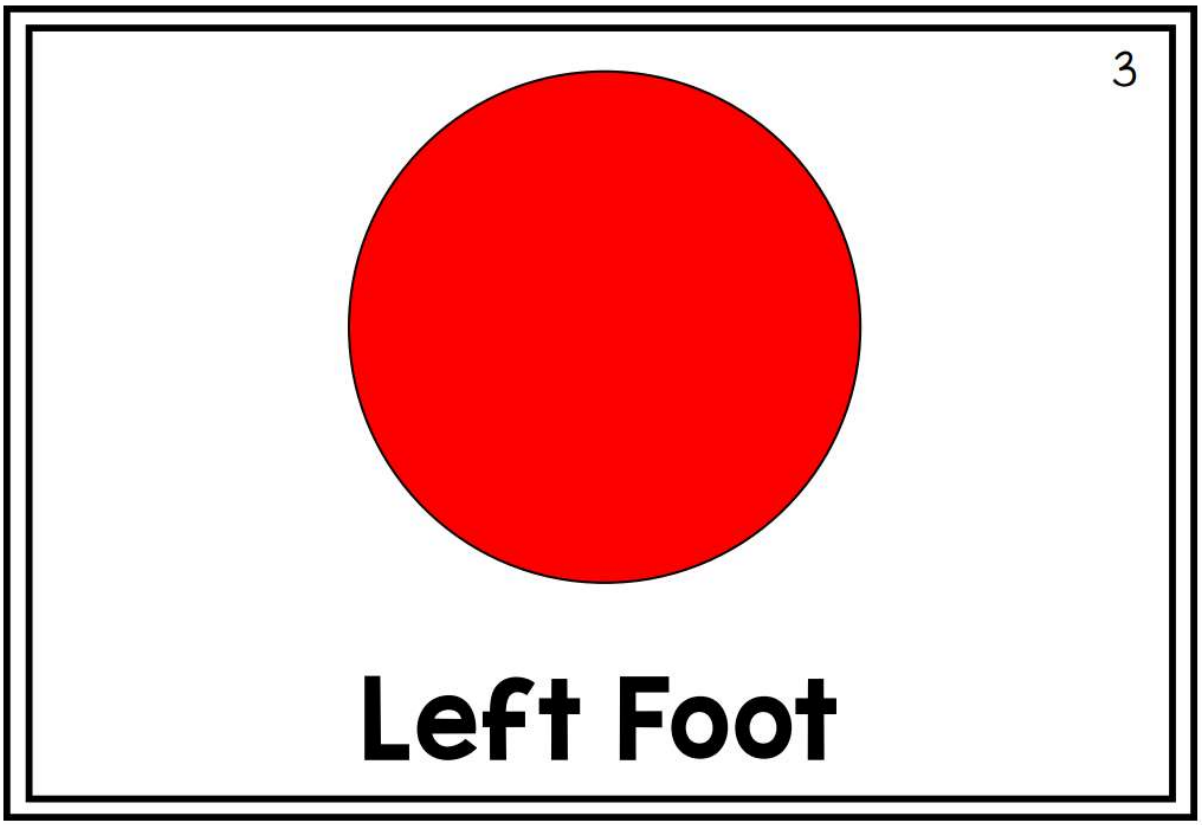

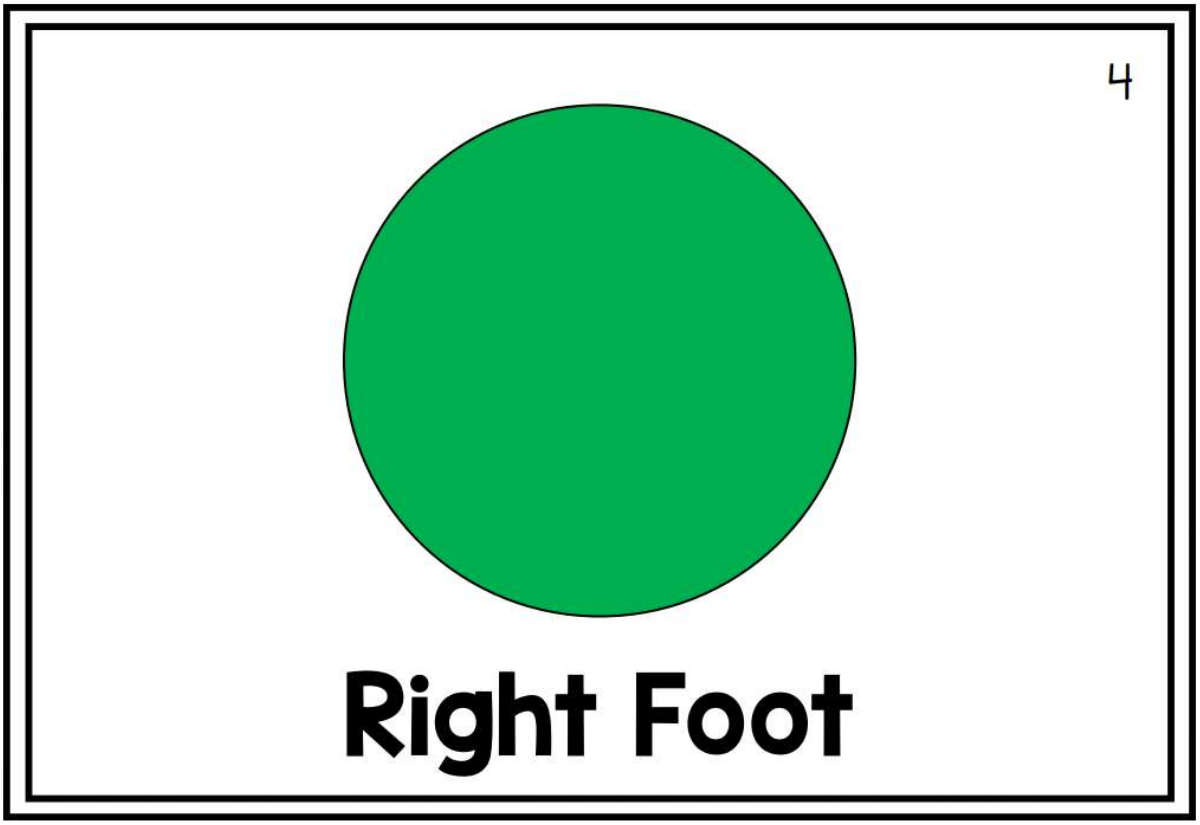

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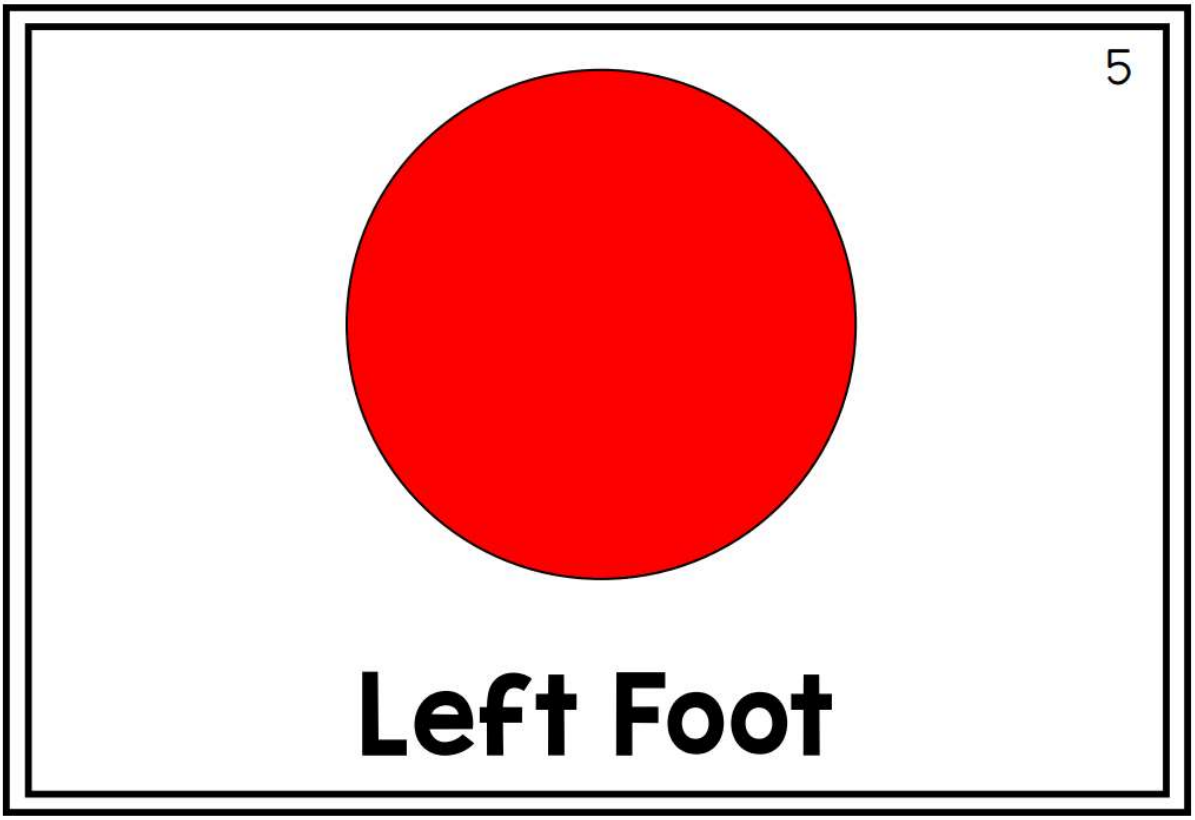

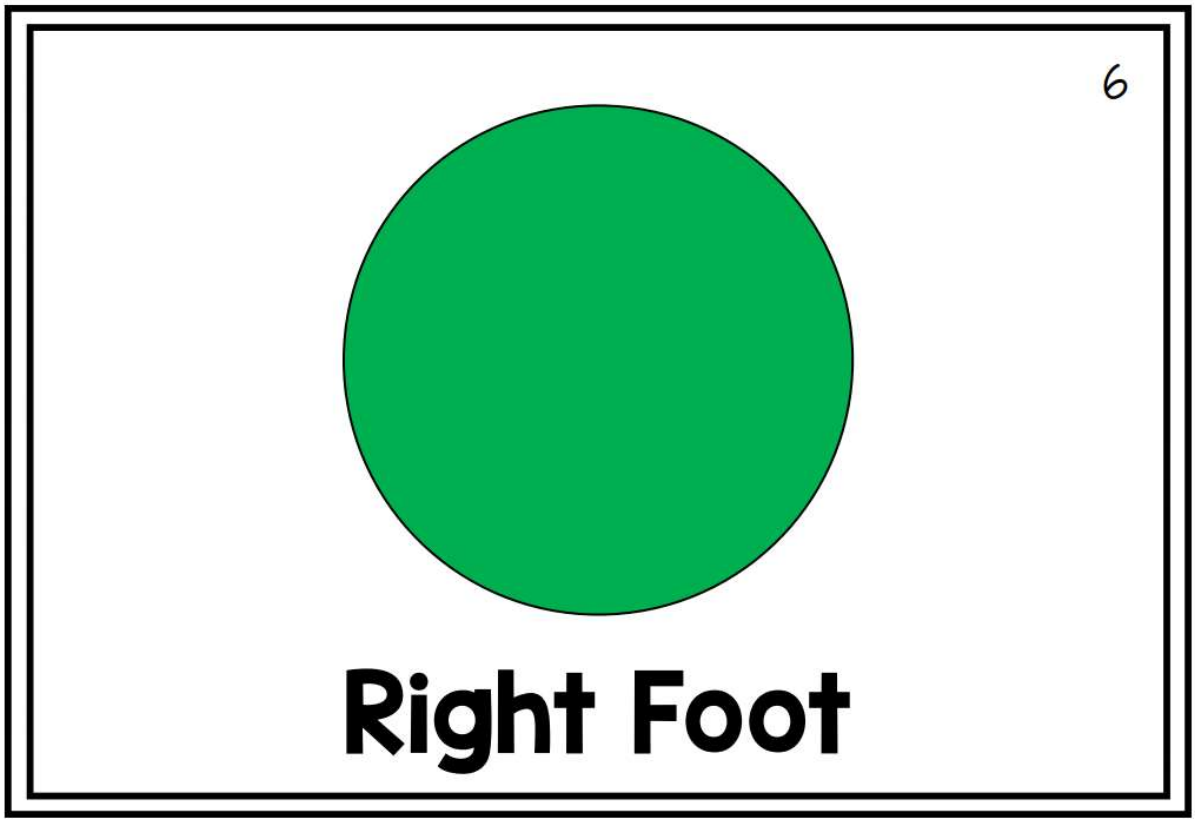

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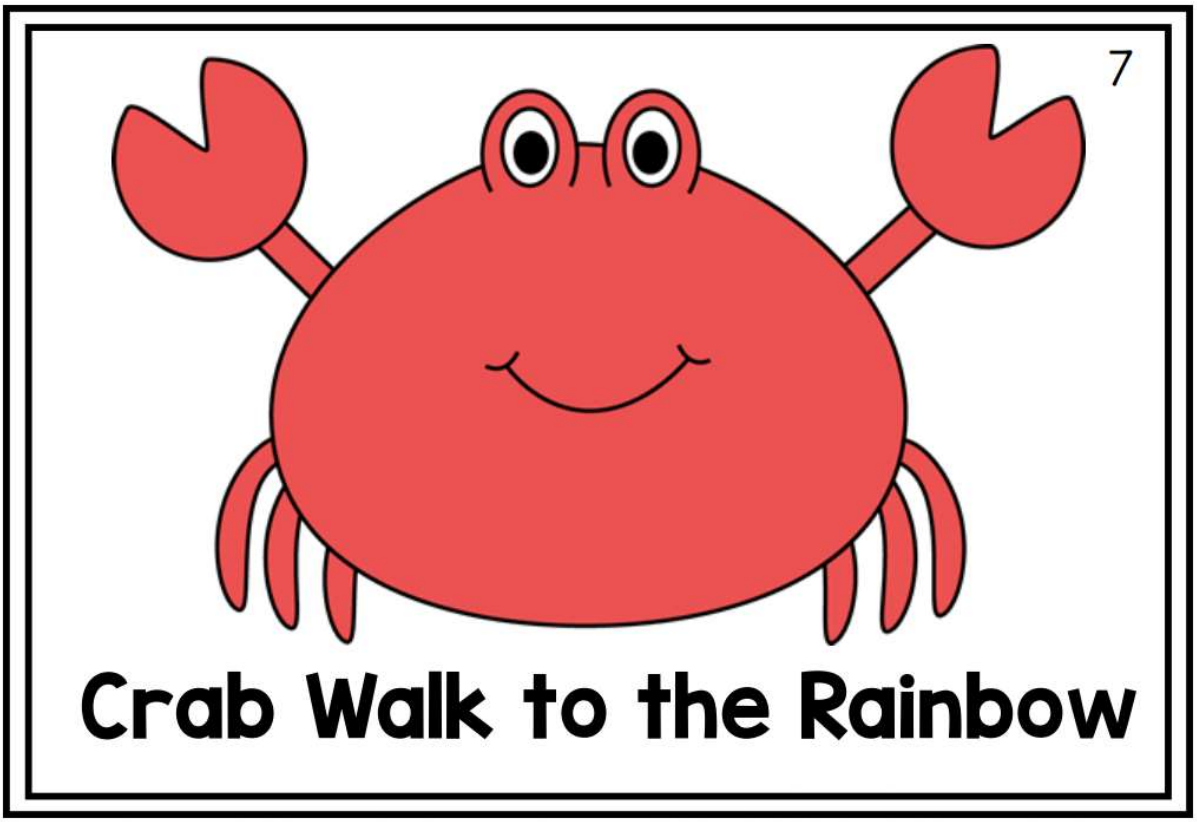

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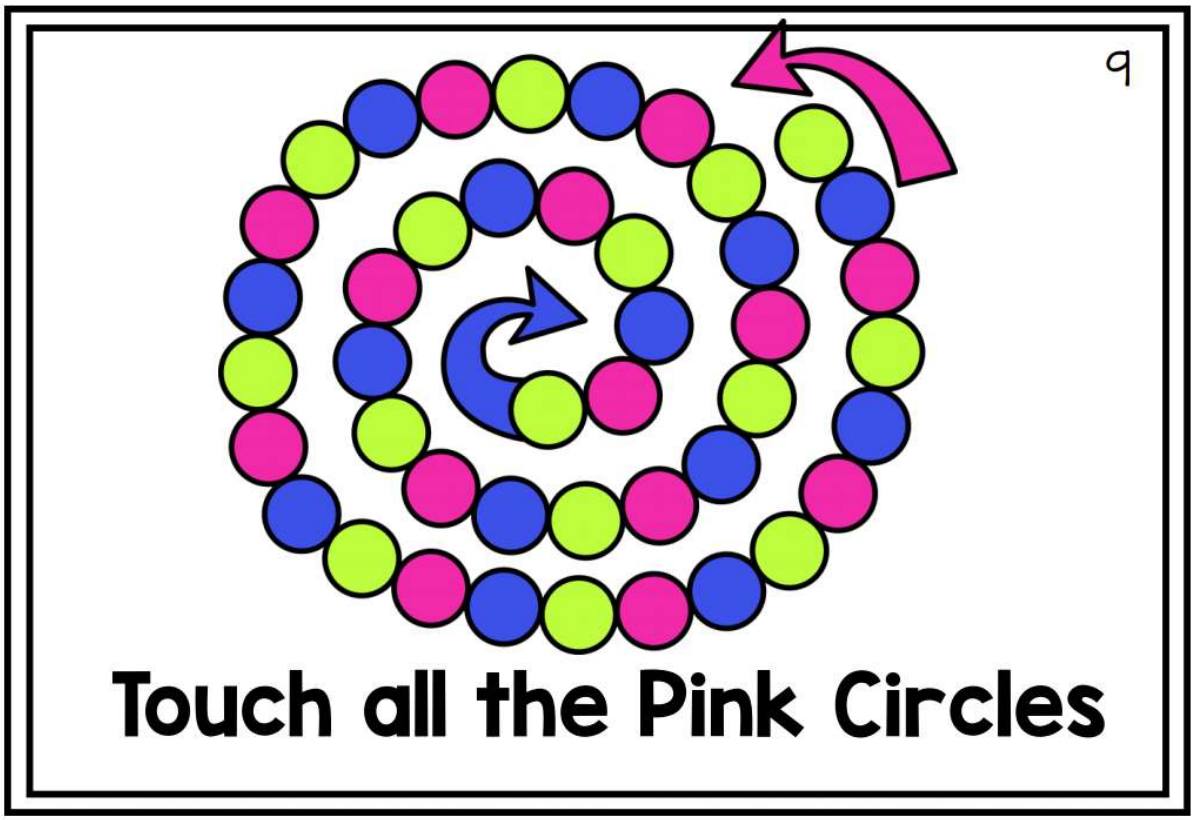

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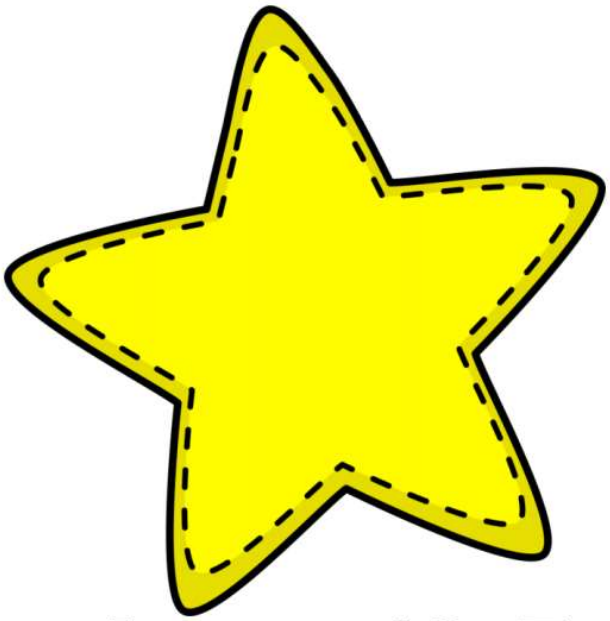
11

Bear Crawl to the Star

12



Star Jump 10 Times

https://www.teacherspayteachers.com/Product/At-Home-Sensory-Walk-5339637

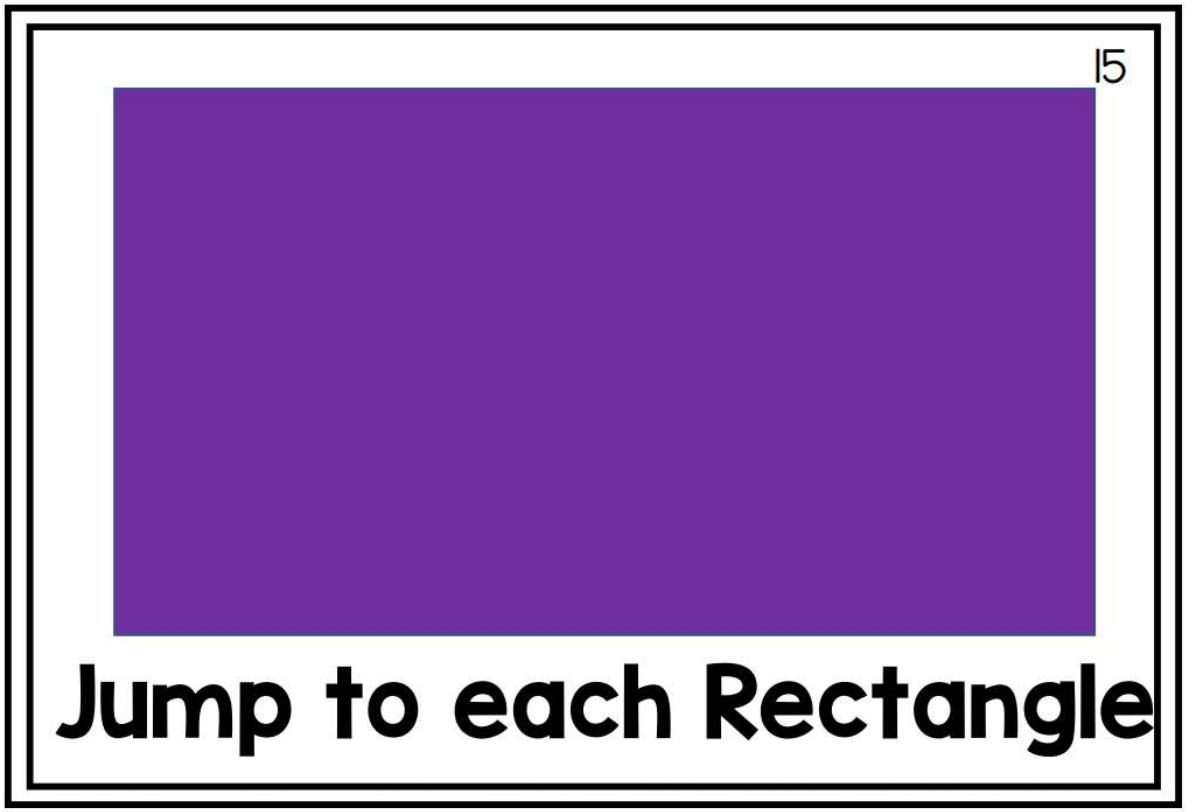
13

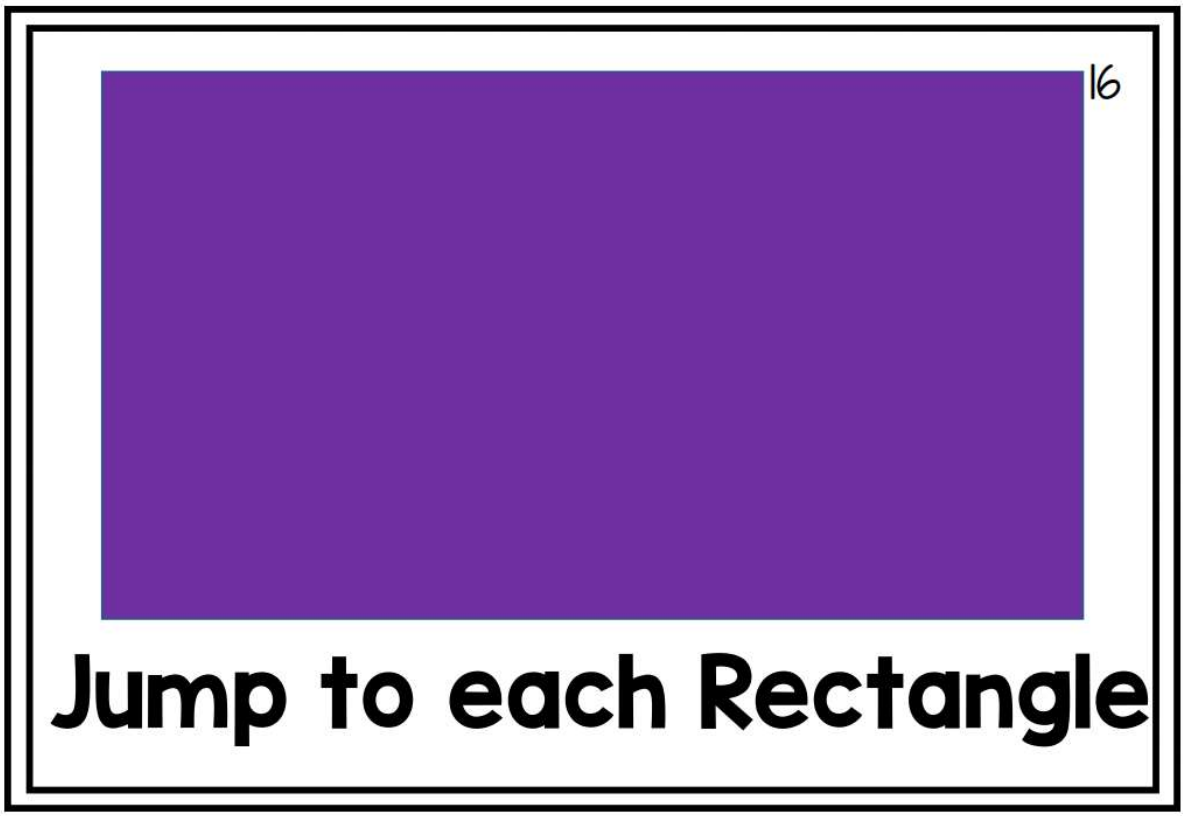
Jump to each Rectangle

14

Jump to each Rectangle

https://www.teacherspayteachers.com/Product/At-Home-Sensory-Walk-5339637





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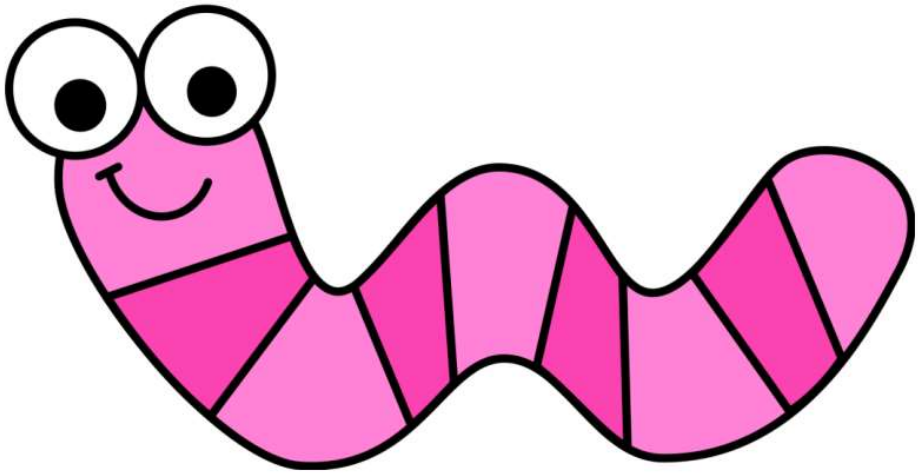
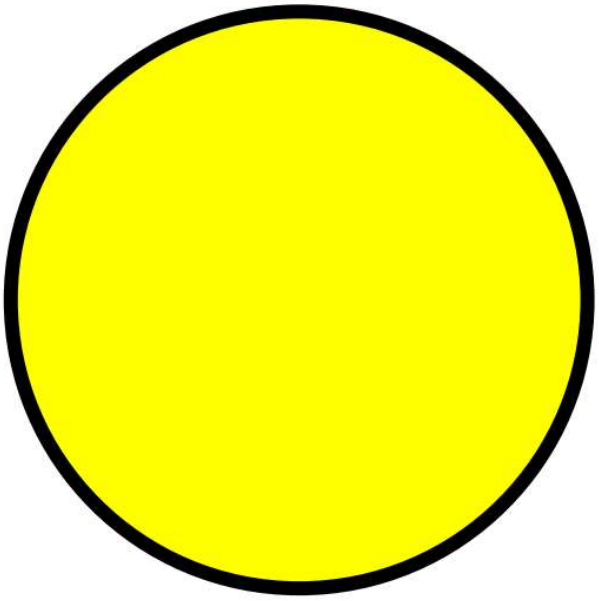


Worm Crawl to the Circle

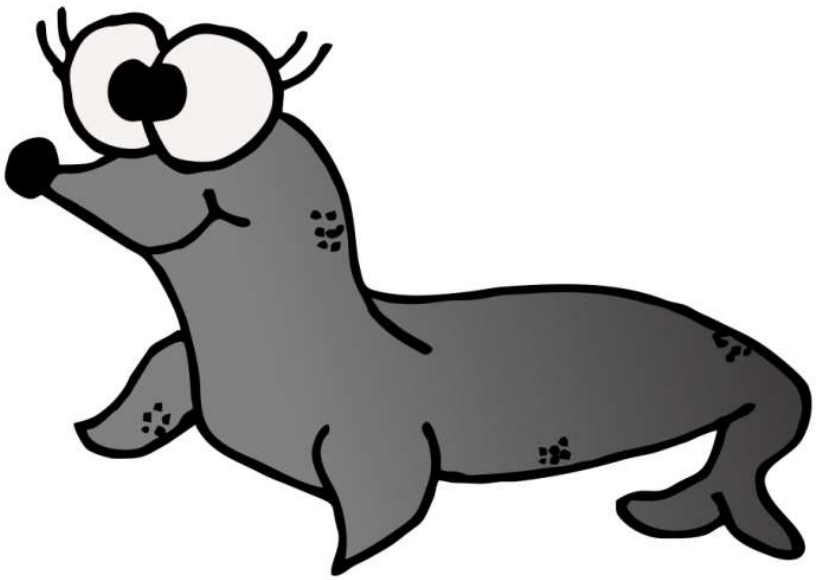
18



Spin Around 3 Times

https://www.teacherspayteachers.com/Product/At-Home-Sensory-Walk-5339637

19



Do Pose Pose

20

You're Done!

https://www.teacherspayteachers.com/Product/At-Home-Sensory-Walk-5339637

Developmental Delay

"DISABILITY NEED NOT BE AN OBSTACLE TO SUCCESS."

-STEPHEN HAWKING

What is it?

Developmental Delay is a unique disability category that applies to students within the age range of three to nine years. This disability is not lifelong, and students after they reach age-out requirements may or may not qualify for an additional disability.

What should I keep in mind?

Students with DD will perform academically lower than their peers. However, if there is no presence of another disability under the surface, such as SLD or ID, students are often able to close the gap once they have had sufficient time to catch up on missing skills.

A common misconception: Students with a developmental delay will have special education services for their entire educational career.

The Facts: Students with DD are reevaluated by the age of nine to investigate if further disabilities are hindering their learning.

https://www.understood.org/en/school-learning/special-services/special-education-basics/conditions-covered-under-idea

What difficulties might I see from my students?	
PROBLEM SOLVING DEFICITS	• Inappropriate playing with objects • Inappropriate playing with peers
MOTOR SKILLS DEFICITS	• Cutting skills • Writing skills • Drawing skills • Dramatic play
RELATED DEFICITS	• Self-esteem • Coping skills • Socially immature or inept • Interpretation of social cues • Social withdrawal

***For additional resources on social skills, refer to the Autism Spectrum Disorders section of this handbook.*

Fine Motor Skills

Fine motor skills are what we use to make very small movements with our bodies. Most people make these movements without even thinking about it, but they are actually very complex. Students use fine motor skills at school in a variety of ways, such as:

- Holding a pencil or crayon
- Writing neatly
- Cutting materials
- Stacking
- Using rulers and other tools

Students also use fine motor skills for many self-help tasks, such as getting dressed, eating, or tying shoes.

https://www.understood.org/en/learning-thinking-differences/child-learning-disabilities/movement-coordination-issues/all-about-fine-motor-skills

Q-TIP DOT A DESIGN

Use a Q-tip to dot and trace the design below.

Name: _____

www.differkinder.com

Name: Date:

Monday

M o n d a y

Cut out the letters below. Paste them in the box above to spell Monday.

M	n	o	a	d	y

https://www.teacherspayteachers.com/Product/FREE-Fine-Motor-Days-of-the-Week-Cut-and-Paste-and-Writing-Activities-1502763

Name: Date:

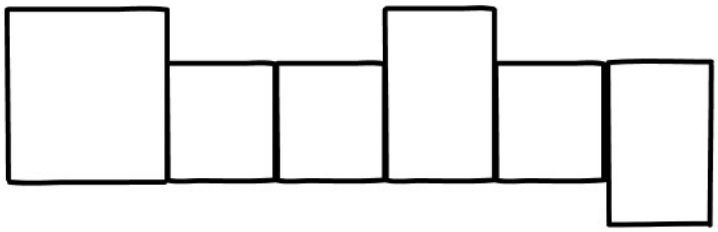
Color.

Monday

Trace.

Monday

Box it.



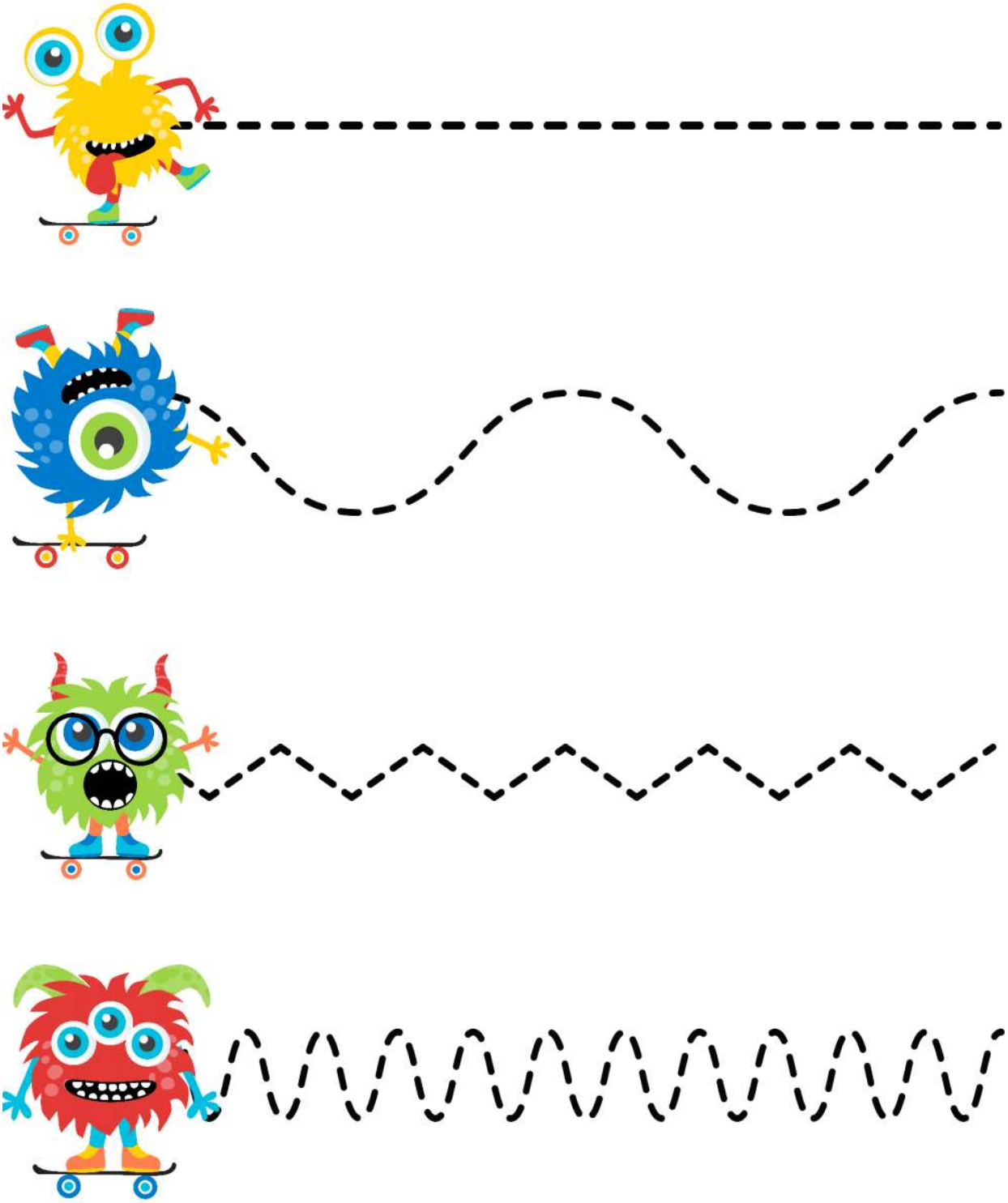
Write.

Find and circle.

Tuesday	Monday	Thursday	Friday
Monday	Saturday	Monday	Sunday
Wednesday	Sunday	Friday	Monday
Monday	Monday	Tuesday	Wednesday

https://www.teacherspayteachers.com/Product/FREE-Fine-Motor-Days-of-the-Week-Cut-and-Paste-and-Writing-Activities-1502763

TRACE THE LINES

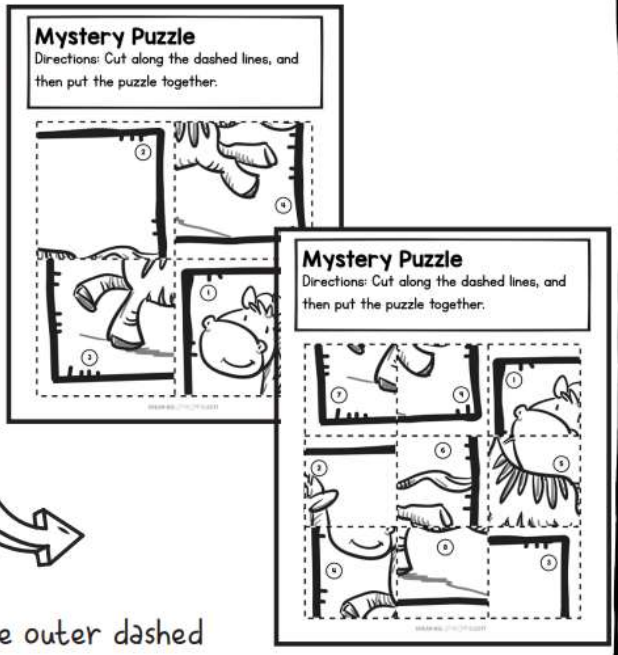


MYSTERY PUZZLE SCISSOR PRACTICE (ZOO)

The following mystery puzzles contain 2 different zoo animals, in two formats: puzzles with 9 square pieces (Pg 5-6)

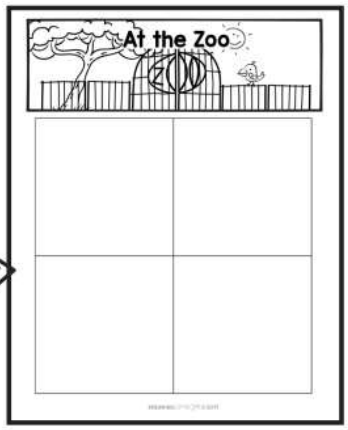
-AND-

For beginner cutters, puzzles with 4 square pieces (Pg 7-8). This activity will help your students work on cutting straight lines, and learning to assemble puzzles using number recognition.

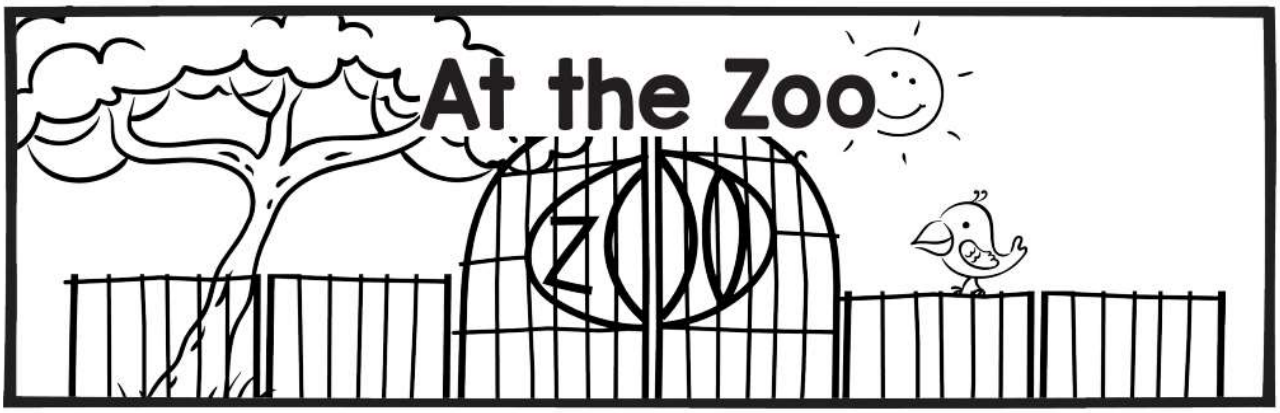


TIPS

- Encourage the students to cut out the outer dashed line square first.
- Share with the children that the numbers are meant to help put the puzzle pieces in order.
- After the students cut the pieces, and assemble the puzzle, you can have them glue the completed puzzle to a piece of paper or the template provided (Pg 3-4)

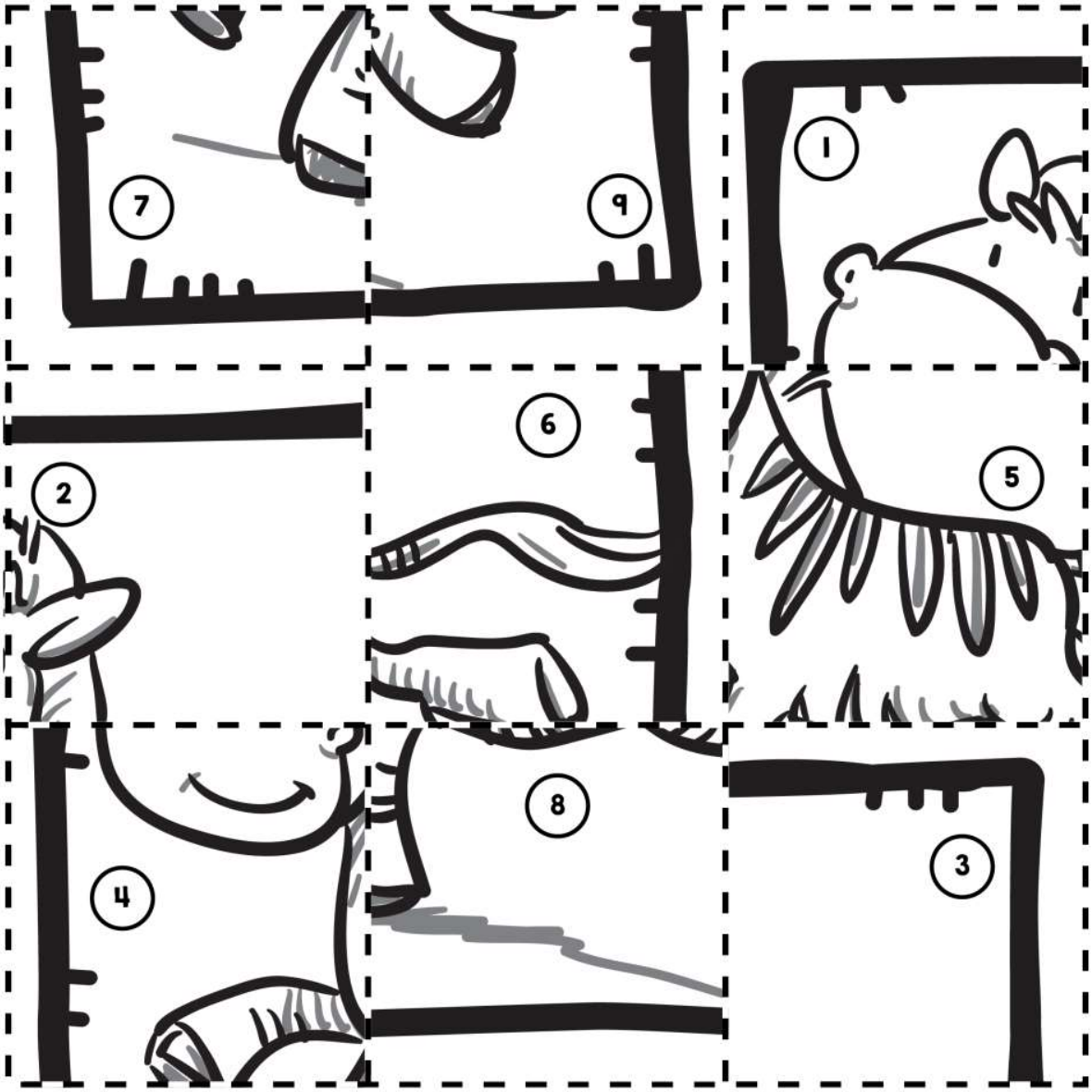


- The numbers "6" and "9" puzzle pieces can be tricky, if a child is stuck, encourage them to look at the puzzle piece and rotate it until it looks correct.
- These puzzles work great during small group time, math centers or with early finishers.



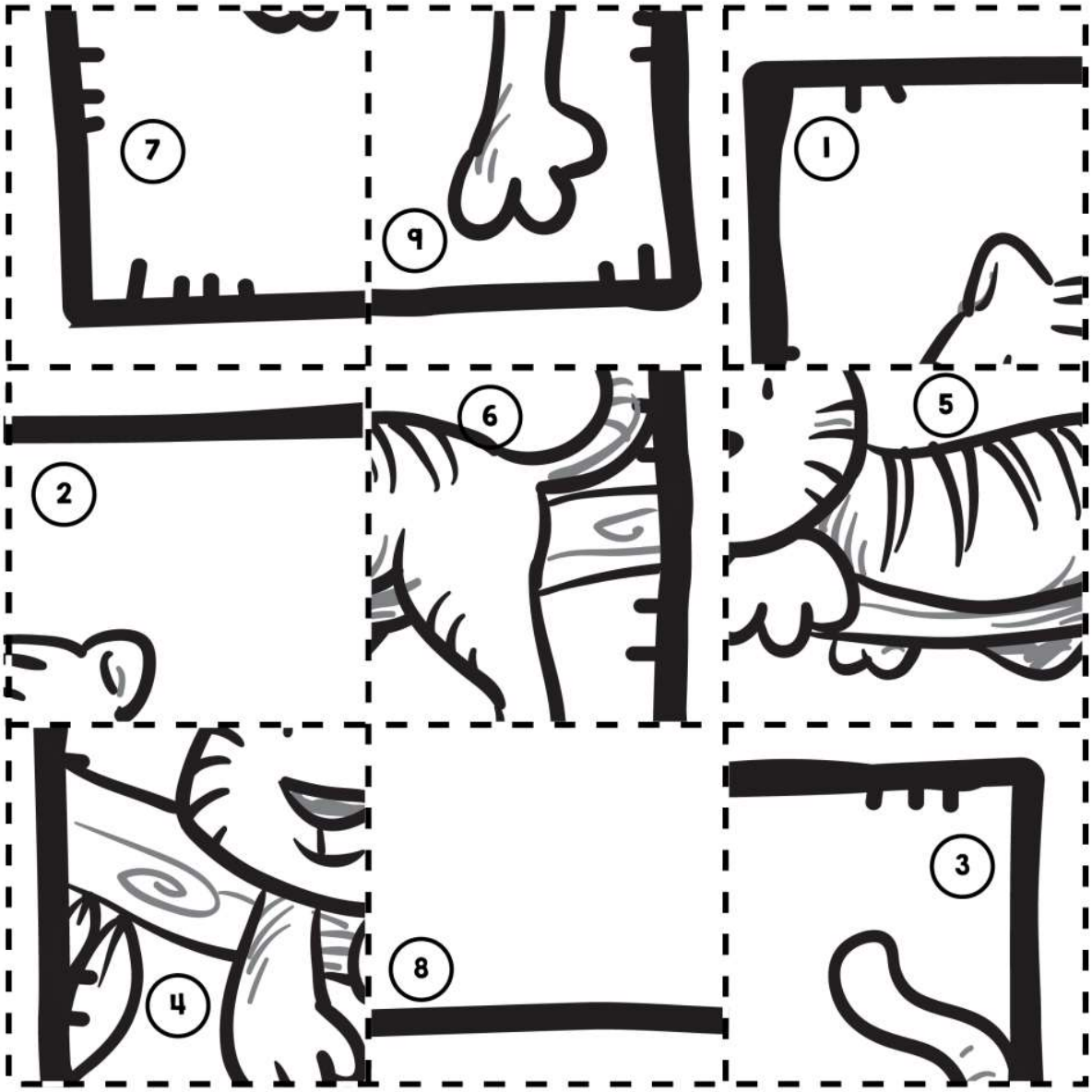
Mystery Puzzle

Directions: Cut along the dashed lines, and then put the puzzle together.



Mystery Puzzle

Directions: Cut along the dashed lines, and then put the puzzle together.



Language Impairment

"ENGLISH DOESN'T BORROW FROM OTHER LANGUAGES. ENGLISH FOLLOWS OTHER LANGUAGES DOWN DARK ALLEYS, KNOCKS THEM OVER, AND GOES THROUGH THEIR POCKETS FOR LOOSE GRAMMAR.

-JAMES NICOLL

What is it?

A language impairment is a communication disorder. Students with LI have an impacted ability to use spoke or written language. Areas of language that can be impacted for these students include:

- Phonology
- Morphology
- Syntax
- Semantics
- Pragmatics

What should I keep in mind?

Students with LI have inhibited comprehension of language, whether it be written, spoken, or a combination of modalities.

Most common misconception: Students with LI just receive services from the speech language pathologist. They won't struggle academically in the classroom.

The Facts: Students with LI can have many deficits academically and are at a higher risk to develop a learning disability than their peers.

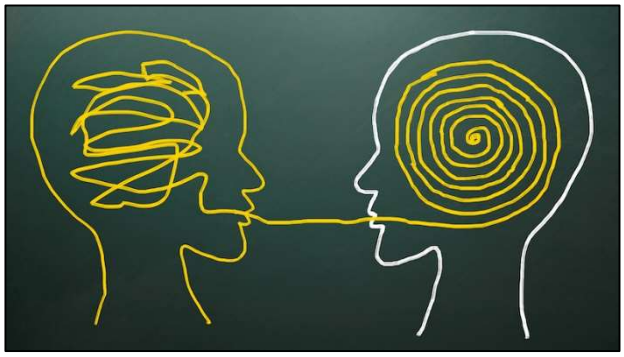
https://www.understood.org/en/school-learning/special-services/special-education-basics/conditions-covered-under-i

What difficulties might I see from my students?	
PHONOLOGY	Sound selection and sound combinations used to form meaning • Phonological processing • Letter-sound relationships
MORPHOLOGY	Internal structure of words and construction of word forms • Recalling phonics patterns
SYNTAX	The order and combination of words to form sentences • Shorter writing • Disorganized writing
SEMANTICS	The meanings of words and sentences • Comprehension of text • Comprehension of word problems • Comprehension of spoken or written directions / expectations
PRAGMATICS	Functional and socially appropriate communication • Interacting appropriately with peers • Forming relationships with peers • Expressing themselves

Supporting Language Impairment in the Classroom

If a student is identified with a language impairment, most of their intervention will come from a speech-language pathologist. However, there are accommodations that we can make in the general education classroom to assist students.

1. **Be patient**. Students with language impairments will need more time to process and prepare their language than the average student.

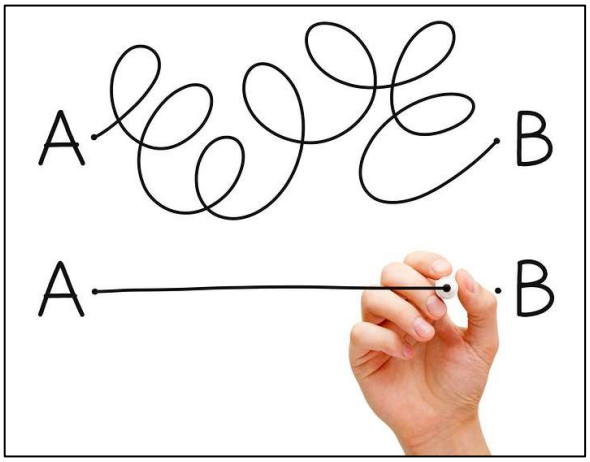


2. **Prepare them when you can.** It can be hard for students with a language impairment to think of an answer to a question on quickly. Give them a sticky note with the question you will be asking them before the lesson so that they can be prepared when it comes time to answer.

https://www.weareteachers.com/language-disorders/

3. **Model.** Be an explicit example of language. If a student answers you in one word, repeat back to them their answer in a complete sentence so that they are able to hear what a proper full sentence answer sounds like.

4. **Simplify.** Many times, in the classroom, we give several directions verbally using a lot of language. Sometimes, the extra explanation is necessary; however, students that struggle to process language will not be able to take in all that language at once. After you have given your directions, repeat the directions in simplified, direct language with the main points that you want your students to remember. For example: Pencil; Notebook; sit at carpet.



https://www.weareteachers.com/language-disorders/

5. **Give choices rather than open-ended questions.** Students with language impairments can struggle to make decisions. Instead of asking a broad question, such as "What would you like to work on?" try asking "Would you like to work on your spelling words or reading page?". This takes the student from limitless options of responses down to just two that they can choose from.

https://www.weareteachers.com/language-disorders/

CHAPTER 6
DISCUSSION AND CONCLUSION

Purpose of the Project

The purpose of the special project was to investigate what knowledge general education teachers had of characteristics of students with disabilities and what strategies these teachers at the elementary level were using within the classroom to meet their needs. These strategies that teachers were using in the general education classroom were explored to determine what strategies were used based on the characteristics of the disabilities of individual students. A handbook was created to provide teachers with resources and ideas for supporting students with disabilities based on the characteristics of their disabilities. The survey results and literature review were analyzed to create this handbook, entitled "Tips and Tools for the Inclusive Elementary Teacher".

Teachers that worked with students identified with Other Health Impairment, specifically when referring to students with Attention Deficit Disorder, noted common characteristics of the disability. However, one teacher fell victim to a common misconception of students with ADHD. Individuals with this disability are often perceived to have a lack of effort in their academics; this misconception was portrayed in the teacher's description of the student's struggle, writing that "he did not try". They reported trying many evidence-based practices when working with these students, including small group and one-on-one instruction, as well as flexible seating options. One practice that was not implemented by either teacher, however, was chunking of assignments. Chunking of assignments is an extremely effective technique to use for students that struggle to focus, as it reduces the amount of material that they are required to focus on at a time before they

are able to take a short break. This can increase the amount of work a student is able to complete as well as the quality of work that is completed.

For those that worked with students with specific learning disability, all three respondents focused on disability characteristics that were specifically academic in nature, such as reading comprehension, reading decoding, or writing. Students with a specific LD struggle academically in one or more areas despite the fact that they have been given targeted instruction to combat this deficit for an extended period of time (American Psychiatric Publishing, 2013). While one teacher did note that the student "struggled to retain information", there was notably a lack of characteristic knowledge in terms of why students would be struggling in their perspective academic areas. Reference to processing of information, working memory, social skills, or impulsive nature were not present. The teachers had attempted a variety of strategies to meet the needs of students in their classrooms, with all three noting that either one-on-one or small group instruction was most effective. However, none of the three teachers noted having implementing chunking of assignments, a very helpful strategy for students with learning disabilities to enhance cognitive process and ensure that they do not become overwhelmed with information on a page.

Teachers of students with Autism Spectrum Disorders represented a very strong characteristic of the disability, albeit unknowingly. When selecting the area of academics where their student struggled the most, they were the only group of teachers to have three students with three different struggles—a characteristic of ASD in that these students are incredibly unique, and no two students represent Autism exactly in the same way. These teachers were very knowledgeable of characteristics of ASD, and like the others attempted a variety of strategies to meet their needs. Once more, it was noted that teachers of students with ASD had not tried the

technique of chunking assignments for their students. Students with Autism Spectrum Disorders struggle to function independently in writing; they may have trouble coming up with a topic to write about without assistance from an adult; being able to remember details about what they need to write, or staying on topic without straying to a preferred topic can also be difficult (Constable, Grossi, Moniz, & Ryan, 2013). The strategy of chunking can benefit students with Autism Spectrum Disorders greatly in their cognitive processing, as too much information at one time, especially language, can be overwhelming.

Overall, when asked what more teachers needed to assist students with disabilities, regardless of the disability of focus that was chosen, teachers reported a unanimous response of requiring more support within the classroom. While some requested more instructors in the classroom, others felt that smaller classroom sizes would enable them to address student needs more effectively. Some simply noted that more time in the day is needed to provide the amount of instruction that is required of them. One teacher noted that there are more students with "needs" than when they first started teaching, which is interpreted as a higher number of students that are identified with disabilities.

Strengths of the Handbook

This handbook is broken down into disability categories that can be found quickly for easy reference when a student is struggling, or a resource is needed to use with students. There are a variety of materials, resources, and ideas to choose from in each activity that are specifically tailored to meet the deficits of students with disabilities at their core. Techniques that are found in this handbook are not exclusive to students with disabilities; rather, there are strategies that are beneficial for all students to experience.

Limitations of the Handbook

This handbook is provided in a hard-copy format. There are many activities completed in the classroom at this point in our society that are digital. While those activities that are meant to be completed digitally are explained to the best of my ability, there are some things that would have been better served if they were able to be shown in a digital format as they were originally intended. Additionally, all strategies are evidence based at the time of publishing; however, our knowledge of what is best for our students is constantly changing. Since this is a hard-copy resource, there may be resources provided in the handbook that at a point in time are considered to be no longer effective for students.

Commercially Produced Handbook

The commercially produced handbook, *Teaching Students with High-Incidence Disabilities: Strategies for Diverse Classrooms (NULL)* by Mary Anne Prater (2017) is a comparable handbook dedicated to teaching strategies for students with disabilities in the general education classroom. The handbook created from this research, "Tips and Tools for the Inclusive Elementary Teacher", is superior in educator-friendliness. The language used within this handbook is more simplistic and widely understood than that in Prater's 2017 rendition. Additionally, this handbook provides more visually appealing examples and templates for teachers to utilize within the classroom. Finally, the general education teacher would benefit from this handbook rather than Prater's (2017), as it is more easily accessible to find the materials the teacher is seeking.

Limitations of the study

This survey was presented to a staff of twenty teachers, five paraprofessionals, a literacy interventionist, and a principal, for a total of twenty-seven possible responses. However, only eight responses were received for the survey. This limited the amount of data that I was able to analyze and review and may not have given the best overall picture of teaching strategies used for students with disabilities at the IRB approved elementary school. Of the responses that were received, only three of the six presented disabilities were chosen for discussion. Due to this, there was no data to review concerning Intellectual Disability, Developmental Delay, or Language Impairment. At the IRB approved elementary school, the relationship between special education and general education is strained and has been that way for many years. There has been a tremendous amount of teacher turnover within the resource classroom over the past eight years, and the 2018-19 school year brought nine teachers, either new-to-the-building or new-to-teaching in general, to the staff. These factors have created a general misunderstanding of the role of special education within the building and has strained the relationship between general education and special education. This strained relationship could explain the limited response to the provided survey.

Implications for Future Projects

More research should be completed to assess what strategies teachers are using in other school settings with students with disabilities, as well as what more they feel that they need to be successful. While this research was completed at a rural school, it is likely that more rural data would need to be collected to get a better view of rural schools. Data should be collected at schools in other environments such as rural versus urban. Data should also be collected where there is more special education support and a lower student to teacher ratio within the special

education program. Schools with Title I support should be taken into consideration also. My research could be used for basis on strategies that teachers could implement to support their students with disabilities in the classroom. Supportively, these results in the elementary setting versus those found in a secondary setting should be investigated.

Reflections

The completion of this special project has been a test of my personal organization, time management, stress, and communication skills. In teaching full time, managing a caseload of fifty students and growing, finding time to dedicate to this special project was extremely challenging. It was hard to work on one task without dropping the other twelve that were being juggled. I am always very harsh in the judgement I give myself. While I present a very passive, "go-with-the-flow" persona on the outside, my insides are twisted into a very capital A. Every time that I completed something, I felt as though it could have been better. I could have reviewed more articles, spent more time editing, found more resources, or made my handbook more visually appeasing. Realistically, there comes a time where I must be honest with myself. I must be okay with the fact that my journey through this project was not perfect, and at times nowhere near where I wanted it to be. Deadlines were missed, opportunities have past, and the world has kept turning all the same.

In completing this special project, I have learned more about the characteristics of the disabilities of my students than I thought I would. This has been a wonderful process, as I have been able to take this knowledge and apply it to my classroom in real time. Compiling the resources that are within my handbook has pushed me to analyze the reasons behind why I am using the activities that I use with my students and really look at what benefit they are gaining

from them, both educationally as well as characteristically. I may not be able to say that this is the best special project that anyone has ever seen. What I can say with my whole-heart is that I am dedicated to finding what is best for my students. Without them, I would not have the courage to wake up every day and face the daunting caseload that lies ahead of me. When finding out that I am obtaining my master's degree, the most common response I get is "Thank goodness you don't have kids!". To this, I always shake my head in disagreement. I am lucky enough to have fifty kids that I get to be with every day, that keep me going no matter what life throws at me. My response to this will always be, "Thank goodness I do".

Conclusion

Students with disabilities come into the classroom with unique sets of needs, and they are coming at a rate that is more heightened than ever. Teachers need knowledge of the characteristics of these disabilities that students have so that they are able to meet their needs through teaching strategies in the general education classroom. The handbook should be shared to provide teachers a quick and effective tool to find resources to use with all students in their classroom that will enable them to meet the needs of their students with disabilities. The most common request from teachers was more time and support in the classroom for their students. This handbook will provide them support that does not require a lot of their time, enabling more of their time to be spent providing instruction to students.

APPENDIX A
SURVEY QUESTIONS

1. How many years have you been teaching?

   0-3 years

   4-6 years

   7-10 years

   11-19 years

   20+ years

2. Think of a student that you have or have had in the past. What is/was this student's disability identification? If a student was identified with multiple disabilities, please choose their primary disability.

   Other Health Impairment

   Intellectual Disability (formerly known as "Cognitive")

   Specific Learning Disability

   Autism Spectrum Disorder

   Language Impairment

   Developmental Delay

   Other:_____

3. What are 2-3 main characteristics of this disability? (open-ended)

4. What subject did this student struggle with the most?

Math- computation

Math- word problems

Reading decoding

Reading comprehension

Writing mechanics

Writing skills

Other:_____

5. How did the student demonstrate this struggle within the classroom? (open ended)

6. What strategies have you tried when supporting these students?

Small group instruction

One-on-one instruction

Modified assignments (content changed)

Shortened assignments (length changed)

Flexible seating options

Chunking of assignments

Peer modeling

Other:_____

7. Which strategy was most effective in teaching the student within your classroom? (open ended)

8. What resources and/or materials have you used to support students within the classroom?

Flexible seating

Manipulatives

Adapted writing paper

Graphic organizers

Pencil grips

Other:_____

9. Which resource or material was most effective in teaching the student within your classroom? (open ended)

10. What more do you feel you need to be successful in reaching the needs of your students in the classroom? (open ended)

APPENDIX B
PARTICIPATION REQUEST EMAIL

Dear _____ staff,

My name is Jordan Sparks. I am currently enrolled in a Thesis and Special Projects course at Purdue University Fort Wayne. I have begun to research characteristics of disabilities in conjunction with how students learn, entitling my these Academic and Behavioral Strategies for the Inclusive General Education Teacher. I am particularly interested in the ways that teachers in the general education classroom pursue teaching students in their classrooms that have been identified with a disability and what more those general education teachers feel they might benefit from in terms of knowledge and teaching strategies. Please consider completing this Teaching Strategies for Students with Disabilities survey. Your responses will be of great value to the integrity and depth of understanding that I am able to include within my study. This survey will take approximately 10-15 minutes of your time.

Your name, email address, or any other identifiable information will not be collected in conjunction with this survey. Individual responses will be used for the sole purpose of research, remaining confidential and being accessed strictly by those individuals involved in this research study. Once a survey is collected, the data is protected in an encrypted Google Drive folder. This study will be completed by May 2020, and all subsequent data

will thereafter be destroyed. _____, Principal at _____, has approved this survey and its' completion by staff members at this location.

Your participation within this survey is voluntary. If at any point while completing the survey you find that you prefer not to answer a question or that you would like to end the survey, you may submit a partially filled survey or discard your response at your discretion. If you have any questions concerning this survey, you are encouraged to contact me by phone at _____, or by email at _____. You may also contact my professor, Jane Leatherman, at 260-481-5742 or leatherj@pfw.edu.

I would like to sincerely extend my gratitude to each of you for your time and effort dedicated to this project.

Sincerely,

Jordan Sparks

Resource Teacher

_____

_____

_____

APPENDIX C
CITI PROGRAM PROOF OF TRAINING

CITI PROGRAM

Completion Date 17-Nov-2019
Expiration Date 16-Nov-2023
Record ID 32231045

This is to certify that:

Jordan Sparks

Has completed the following CITI Program course:

Human Research (Curriculum Group)
Group 2.Social Behavioral Research Investigators and Key Personnel (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Purdue University

Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w6882574b-4bbc-4571-bbe5-c0300d9f9382-32231045

APPENDIX D
LETTER OF APPROVAL FROM PRINCIPAL

To whom it may concern:

I have reviewed the proposal of research made by Jordan Sparks entitled "Academic and Behavioral Strategies for the Inclusive General Education Teacher". I permit her to conduct this research at Northern Heights Elementary. Miss Sparks is an acting special education teacher in the building, and the survey will be administered to the teachers currently teaching in the building.

I understand that participation in this survey will be voluntary for the teachers at their own discretion. Additionally, I understand that any data collected from this survey will be kept confidential in a password protected Google Drive folder to be shared exclusively with the research team.

Please accept this letter as my formal consent for this research to be conducted at Northern Heights Elementary.

Sincerely,

REFERENCES

Adlof, S. M., Scoggins, J., Brazendale, A., Babb, S., & Petscher, Y. (2017). Identifying Children at Risk for Language Impairment or Dyslexia With Group-Administered Measures. *Journal of Speech, Language & Hearing Research*, *60*(12), 3507–3522. https://doi.org/10.1044/2017_JSLHR-L-16-0473

Ae-Hwa Kim, B. A., Vaughn, S., Wanzek, J., & Shangjin Wei, J. (2004). Graphic Organizers and Their Effects on the Reading Comprehension of Students with LD: A Synthesis of Research. *Journal of Learning Disabilities*, *37*(2), 105–118. https://doi.org/10.1177/00222194040370020201

Akyürek, E. G., Kappelmann, N., Volkert, M., & van Rijn, H. (2017). What You See Is What You Remember: Visual Chunking by Temporal Integration Enhances Working Memory. *Journal of Cognitive Neuroscience*, *29*(12), 2025–2036. https://doi.org/10.1162/jocn_a_01175

Al-Dababneh, K. A., & Al-Zboon, E. K. (2018). Understanding Impulsivity Among Children With Specific Learning Disabilities in Inclusion Schools. *Learning Disability Quarterly*, *41*(2), 100–112. https://doi.org/10.1177/0731948717726497

American Psychiatric Publishing. (2013). *Diagnostic and statistical manual of mental disorders: Dsm-5*. Washington (D.C.).

Archibald, L.M.D. and Harder Griebeling, K. (2016), Rethinking the connection between working memory and language impairment. International Journal of Language & Communication Disorders, 51: 252-264. doi:10.1111/1460-6984.12202

Arciuli, J., Stevens, K., Trembath, D., & Simpson, I. C. (2013). The Relationship Between Parent Report of Adaptive Behavior and Direct Assessment of Reading Ability in Children With Autism Spectrum Disorder. *Journal of Speech, Language & Hearing Research*, *56*(6), 1837–1844. https://doi.org/10.1044/1092-4388(2013/12-0034)

Asaro-Saddler, K. & Saddler, B. (2010). Planning Instruction and Self-Regulation Training.' Effects on Writers With Autism Spectrum Disorders. *Exceptional Children*, *77*(1), 107–124. https://doi.org/10.1177/001440291007700105\

Baio, J., Wiggins, L., Christensen, D. L., Maenner, M. J., Daniels, J., Warren, Z.,... Dowling, N. F. (2018). Prevalence of autism spectrum disorder among children aged 8 years - Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2014. Morbidity and Mortality Weekly Report Surveillance Summaries, 67, 1–23. http://dx.doi.org/10.15585/mmwr.ss6706a1Berninger, V. W., Nielsen, K. H., Abbott, R. D., Wijsman, E., & Raskind, W. (2008). Writing problems in developmental dyslexia: Under-recognized and under-treated. Journal of School Psychology, 46, 1–21. https://doi.org/10.1016/j.jsp. 2006.11.008

Baldi, S., Caravale, B., & Presaghi, F. (2018). Daily motor characteristics in children with developmental coordination disorder and in children with specific learning disorder. *Dyslexia (10769242)*, *24*(4), 380–390. https://doi.org/10.1002/dys.1595

Barahmand, U., Puru, F., & Khazaee, A. (2015). A Study of the Relationship of Academic Achievement and Impulsivity in Children with Specific Learning Disabilities to Parenting Strain and Sense of Competence in their Mothers. *Malaysian Journal of Health Sciences / Jurnal Sains Kesihatan Malaysia*, *13*(1), 7–14. https://doi.org/10.17576/jskm-2015-1301-02

Barr, J. J., & Bracchitta, K. (2008). Effects of Contact With Individuals With Disabilities: Positive Attitudes and Majoring in Education. *Journal of Psychology*, *142*(3), 225–244. https://doi.org/10.3200/JRLP.142.3.225-244

Baxendell, B. W. (2003). Consistent, Coherent, Creative The 3 C's of Graphic Organizers. *Teaching Exceptional Children*, *35*(3), 46. https://doi.org/10.1177/004005990303500307

Bosco, A., Paulauskaite, L., Hall, I., Crabtree, J., Soni, S., Biswas, A., … Hassiotis, A. (2019). Process evaluation of a randomised controlled trial of PBS-based staff training for challenging behaviour in adults with intellectual disability. *PLoS ONE*, *14*(8), 1–18. https://doi.org/10.1371/journal.pone.0221507Carbone, V. J., O'Brien, L., Sweeney-Kerwin, E. J., & Albert, K. M. (2013). Teaching Eye Contact to Children with Autism: A Conceptual Analysis and Single Case Study. *Education & Treatment of Children*, *36*(2), 139–159. https://doi.org/10.1353/etc.2013.0013

Bouck, E. C., & Jiyoon Park. (2018). A Systematic Review of the Literature on Mathematics Manipulatives to Support Students with Disabilities. *Education & Treatment of Children*, *41*(1), 65–106. https://doi.org/10.1353/etc.2018.0003

Carbonneau, K. J., Marley, S. C., & Selig, J. P. (2013). A Meta-Analysis of the Efficacy of Teaching Mathematics With Concrete Manipulatives. *Journal of Educational Psychology*, *105*(2), 380–400. https://doi.org/10.1037/a0031084

Cardon, T., Wangsgard, N., & Dobson, N. (2019). Video Modeling Using Classroom Peers as Models to Increase Social Communication Skills in Children with ASD in an Integrated Preschool. *Education and Treatment of Children 42*(4), 515-536. doi:10.1353/etc.2019.0024

Carter, E. W., & Hughes, C. (2005). Increasing Social Interaction Among Adolescents with Intellectual Disabilities and Their General Education Peers: Effective Interventions. *Research & Practice for Persons with Severe Disabilities*, *30*(4), 179–193. https://doi.org/10.2511/rpsd.30.4.179

Carter, E. W., & Kuntz, E. M. (2019). Review of Interventions Supporting Secondary Students with Intellectual Disability in General Education Classes. *Research & Practice for Persons with Severe Disabilities*, *44*(2), 103–121. https://doi.org/10.1177/1540796919847483

Carvalhais, L., & da Silva, C. F. (2010). Developmental Dyslexia: Perspectives on Teacher Training and Learning Disabilities in Portugal. *Learning Disabilities -- A Contemporary Journal*, *8*(2), 1–8. Retrieved from http://search.ebscohost.com.ezproxy.library.pfw.edu/login.aspx?direct=true&db=aph&AN=57427783&site=ehost-live&scope=site

Chiang, H., & Lin, Y. (2008). Expressive communication of children with autism. *Journal of Autism and Developmental Disorders, 38*(3), 538-45. doi:http://dx.doi.org.ezproxy.library.pfw.edu/10.1007/s10803-007-0423-z

Ciullo, S., Ely, E., McKenna, J. W., Alves, K. D., & Kennedy, M. J. (2019). Reading Instruction for Students With Learning Disabilities in Grades 4 and 5: An Observation Study. *Learning Disability Quarterly*, *42*(2), 67–79. https://doi.org/10.1177/0731948718806654

Constable, S., Grossi, B., Moniz, A., & Ryan, L. (2013). Meeting the Common Core State Standards for Students With Autism. *Teaching Exceptional Children*, *45*(3), 6–13. https://doi.org/10.1177/004005991304500301

Cortiella, Candace and Horowitz, Sheldon H. The State of Learning Disabilities: Facts, Trends and Emerging Issues. New York: National Center for Learning Disabilities, 2014.

Davidson, M. M., Kaushanskaya, M., & Ellis Weismer, S. (2018). Reading Comprehension in Children With and Without ASD: The Role of Word Reading, Oral Language, and Working Memory. *Journal of Autism & Developmental Disorders*, *48*(10), 3524–3541. https://doi.org/10.1007/s10803-018-3617-7

Dockrell, J. E., Lindsay, G., & Connelly, V. (2009). The Impact of Specific Language Impairment on Adolescents' Written Text. *Exceptional Children*, *75*(4), 427–446. https://doi.org/10.1177/001440290907500403

Donfrancesco, R., Mugnaini, D., & Dell'Uomo, A. (2005). Cognitive impulsivity in specific learning disabilities. *European Child & Adolescent Psychiatry*, *14*(5), 270–275. https://doi.org/10.1007/s00787-005-0472-9

Donohue, D., WIse, J. C., Romski, M., Henrich, C. C., & Ann Sevcik, R. (2010). Self-concept development and measurement in children with mild intellectual disabilities. *Developmental Neurorehabilitation*, *13*(5), 322–334. https://doi.org/10.3109/17518423.2010.496765

DuPaul, G., Weyandt, L., & Janusis, G. (2011). ADHD in the Classroom: Effective Intervention Strategies. *Theory Into Practice*, *50*(1), 35–42. https://doi.org/10.1080/00405841.2011.534935

Einfeld, S. L., Piccinin, A.M., Mackinnon, A., Hofer, S.M., Taffe, J. Gray, K.M., … Tonge, B.J. (2006) Psychopathology in Young People With Intellectual Disability. *JAMA.* 2006;296(16):1981–1989. https://doi.org/10.1001/jama.296.16.1981

Eriks-Brophy, A., & Whittingham, J. (2013). Teachers' Perceptions of the Inclusion of Children with Hearing Loss in General Education Settings. *American Annals of the Deaf*, *158*(1), 63–97. https://doi.org/10.1353/aad.2013.0009

Ewoldt, K. B., & Morgan, J. J. (2017). Color-Coded Graphic Organizers for Teaching Writing to Students With Learning Disabilities. *Teaching Exceptional Children*, *49*(3), 175–184. https://doi.org/10.1177/0040059916681769

Fedewa, A. L., & Erwin, H. E. (2011). Stability balls and students with attention and hyperactivity concerns: Implications for ontask and in-seat behavior. American Journal of Occupational Therapy, 65, 393–399. doi:10.5014/ajot.2011.000554.

Fendrich, D. W., & Arengo, R. (2004). The influence of string length and repetition on chunking of digit strings. *Psychological Research*, *68*(4), 216–223. https://doi.org/10.1007/s00426-003-0142-9

Fernandes, A. C., M.Ed, Huang, J., PhD., & Rinaldo, V., PhD. (2011). Does where A student sits really matter? - the impact of seating locations on student classroom learning. *International Journal of Applied Educational Studies, 10*(1), 66-77. Retrieved from https://ezproxy.library.pfw.edu/login?url=https://search-proquest-com.ezproxy.library.pfw.edu/docview/865932352?accountid=11649

Fink, J. L. W. (2016). Inside ADHD. *Scholastic Teacher*, *125*(4), 41–43. Retrieved from http://search.ebscohost.com.ezproxy.library.pfw.edu/login.aspx?direct=true&db=aph&AN=112737604&site=ehost-live&scope=site

Forlin, C., & Chambers, D. (2011). Teacher preparation for inclusive education: increasing knowledge but raising concerns. *Asia-Pacific Journal of Teacher Education*, *39*(1), 17–32. https://doi.org/10.1080/1359866X.2010.540850

Fuchs, L. S., Fuchs, D., Compton, D. L., Wehby, J., Schumacher, R. F., Gersten, R., & Jordan, N. C. (2015). Inclusion Versus Specialized Intervention for Very-Low-Performing Students: What Does Access Mean in an Era of Academic Challenge? *Exceptional Children*, *81*(2), 134–157. https://doi.org/10.1177/0014402914551743

Gal, E., Schreur, N., & Engel-Yeger, B. (2010). Inclusion of children with disabilities: Teachers' attitudes and requirements for environmental accommodations. International Journal of Special Education, 25(2), 89-99. Retrieved from https://files.eric.ed.gov/fulltext/EJ890588.pdf

Ghanizadeh, A., Bahredar, M. J., & Moeini, S. R. (2006). Knowledge and attitudes towards attention deficit hyperactivity disorder among elementary school teachers. *Patient Education & Counseling*, *63*(1/2), 84–88. https://doi.org/10.1016/j.pec.2005.09.002

Gilmour, A. F., Fuchs, D., & Wehby, J. H. (2019). Are Students With Disabilities Accessing the Curriculum? A Meta-Analysis of the Reading Achievement Gap Between Students With and Without Disabilities. *Exceptional Children*, *85*(3), 329–346. https://doi.org/10.1177/0014402918795830

Gligorović, M., & Buha Đurović, N. (2014). Inhibitory control and adaptive behaviour in children with mild intellectual disability. *Journal of Intellectual Disability Research*, *58*(3), 233–242. https://doi.org/10.1111/jir.12000

Goodmon, L. B., Leverett, R., Royer, A., Hillard, G., Tedder, T., & Rakes, L. (2014). The effect of therapy balls on the classroom behavior and learning of children with dyslexia. Journal of Research in Education, 24, 124-145.

GÜLEÇ - ASLAN, Y. (2013). A Training Programme for a Teacher Working with a Student with ASD: An Action Research. *Educational Sciences: Theory & Practice*, *13*(4), 2229–2246. https://doi.org/10.12738/estp.2013.4.1738

Hall-Mills, S. (2019). A Comparison of the Prevalence Rates of Language Impairment Before and After Response-to-Intervention Implementation. *Language, Speech & Hearing Services in Schools*, *50*(4), 703–709. https://doi.org/10.1044/2019_LSHSS-18-0144

Han, J.Y., Jang, W., Park, J., Kim, M., Kim, Y. and Lee, I.G. Diagnostic approach with genetic tests for global developmental delay and/or intellectual disability: Single tertiary center experience. *Ann Hum Genet*. 2019; 83: 115– 123. https://doi.org/10.1111/ahg.12294

Harris, K. R., Graham, S., & Mason, L. H. (2003). Self-Regulated Strategy Development in the Classroom: Part of a Balanced Approach to Writing Instruction for Students With Disabilities. *Focus on Exceptional Children*, *35*(7), 1–16. Retrieved from http://search.ebscohost.com.ezproxy.library.pfw.edu/login.aspx?direct=true&db=aph&AN=11604543&site=ehost-live&scope=site

Harrison, J. R., Bunford, N., Evans, S. W., & Owens, J. S. (2013). Educational Accommodations for Students With Behavioral Challenges: A Systematic Review of the Literature. Review of Educational Research, 83(4), 551–597. https://doi.org/10.3102/0034654313497517

Hebert, M., Kearns, D. M., Baker Hayes, J., Bazis, P., & Cooper, S. (2018). Why Children With Dyslexia Struggle With Writing and How to Help Them. *Language, Speech & Hearing Services in Schools*, *49*(4), 843–863. https://doi.org/10.1044/2018_LSHSS-DYSLC-18-0024

Hord, C., & Xin, Y. P. (2013). Intervention research for helping elementary school students with math learning disabilities understand and solve word problems from 1996- 2009. Learning Disabilities: A Multidisciplinary Journal, 19, 3-17. Retrieved from https://www.researchgate.net/publication/284276359_Intervention_Research_for_Helping_Elementary_School_Students_with_Math_Learning_Difficulties_Understand_and_Solve_Word_Problems_19962010

Indiana Department of Education (2019). School Enrollment by Ethnicity and Free/Reduced Meal Price Status. Retrieved from https://www.doe.in.gov/sites/default/files/accountability/school-enrollment-ethnicity-and-free-reduced-price-meal-status-2006-19.xlsx

Indiana Department of Education (2019). School Enrollment by Special Education and English Language Learners (ELL). Retrieved from https://www.doe.in.gov/sites/default/files/accountability/school-enrollment-ell-special-education-2006-19.xlsx

Individuals with Disabilities Education Act, 34 C.F.R. § 300 et seq. (2004).

Individuals with Disabilities Education Improvement Act PL 108 – 446. 20 U.S. C, §§ 1400 et seq. (2014).

Jameson, J. M., Walker, R., Utley, K., & Maughan, R. (2012). A Comparison of Embedded Total Task Instruction in Teaching Behavioral Chains to Massed One-on-One Instruction for Students With Intellectual Disabilities: Accessing General Education Settings and Core Academic Content. Behavior Modification, 36(3), 320–340. https://doi.org/10.1177/0145445512440574

Kaldenberg, E. R., Ganzeveld, P., Hosp, J. L., & Rodgers, D. B. (2016). Common Characteristics of Writing Interventions for Students with Learning Disabilities: A Synthesis of the Literature. *Psychology in the Schools*, *53*(9), 938–953. https://doi.org/10.1002/pits.21958

Kavale, K. A., & Mostert, M. P. (2004). Social Skills Interventions for Individuals with Learning Disabilities. *Learning Disability Quarterly*, *27*(1), 31–43. https://doi.org/10.2307/1593630

King, S. M. E. (2008). Facts and fallacies: differentiation and the general education curriculum for students with special educational needs. *Support for Learning*, *23*(2), 55–62. https://doi.org/10.1111/j.1467-9604.2008.00371.x

Kirby, M. (2017). Implicit Assumptions in Special Education Policy: Promoting Full Inclusion for Students with Learning Disabilities. Child & Youth Care Forum, 46(2), 175–191. https://doi.org/10.1007/s10566-016-9382-x

Kurtz, N. E., & McIntyre, L. L. (2017). Optimism and positive and negative feelings in parents of young children with developmental delay. *Journal of Intellectual Disability Research*, *61*(7), 719–725. https://doi.org/10.1111/jir.12378

Lanou, A., Hough, L., & Powell, E. (2012). Case Studies on Using Strengths and Interests to Address the Needs of Students With Autism Spectrum Disorders. Intervention in School and Clinic, 47(3), 175–182. https://doi.org/10.1177/1053451211423819

Ledford, J. R., & Wolery, M. (2013). Peer Modeling of Academic and Social Behaviors During Small-Group Direct Instruction. *Exceptional Children*, *79*(4), 439–458. https://doi.org/10.1177/001440291307900404

Lynch, Jeremy M. (2016). Effective Instruction for Students with Disabilities: Perceptions of Rural Middle School Principals. *Rural Special Education Quarterly., 35*(4), 26-36.

McLaughlin, M., & Overturf, B. J. (2012). The Common Core: Insights Into the K-5 Standards. *Reading Teacher*, *66*(2), 153–164. https://doi.org/10.1002/TRTR.01115

Mok, P. L. H., Pickles, A., Durkin, K., & Conti, R. G. (2014). Longitudinal trajectories of peer relations in children with specific language impairment. *Journal of Child Psychology & Psychiatry*, *55*(5), 516–527. https://doi.org/10.1111/jcpp.12190

NOLTEMEYER, A. L., JOSEPH, L. M., & KUNESH, C. E. (2019). Effects of Supplemental Small Group Phonics Instruction on Kindergartners' Word Recognition Performance. *Reading Improvement*, *56*(3), 149–160.

Reiter, A., Tucha, O., & Lange, K. W. (2005). Executive functions in children with dyslexia. *Dyslexia (10769242)*, *11*(2), 116–131. https://doi.org/10.1002/dys.289

Richards, L. C., Heathfield, L. T., & Jenson, W. R. (2010). A classwide peer-modeling intervention package to increase on-task behavior. *Psychology in the Schools*, *47*(6), 551–566. https://doi.org/10.1002/pits.20490

Rivera, C. J., & Baker, J. N. (2013). Teaching Students With Intellectual Disability to Solve for x. *Teaching Exceptional Children*, *46*(2), 14–21. https://doi.org/10.1177/004005991304600202

Rogers, C. M., Thurlow, M. L., Lazarus, S. S., & Liu, K. K. (2019). A summary of the research on effects of test accommodations: 2015-2016 (NCEO Report 412). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.

Rosa's Law, Pub. L. No. 111-256, S. 2781 (111th) (2010)

Samuels, C. A. (2017). Special Education: "The State of Learning Disabilities: Understanding the 1 in 5." *Education Week*, *36*(33), 4. Retrieved from http://search.ebscohost.com.ezproxy.library.pfw.edu/login.aspx?direct=true&db=aph&AN=123710180&site=ehost-live&scope=site

Schneider, N., & Goldstein, H. (2009). Social Stories Improve the On-Task Behavior of Children With Language Impairment. *Journal of Early Intervention*, *31*(3), 250–264. https://doi.org/10.1177/1053815109339564

Schley, L. (2019). ADHD. *Discover*, *40*(6), 68–71. Retrieved from http://search.ebscohost.com.ezproxy.library.pfw.edu/login.aspx?direct=true&db=aph&AN=136397810&site=ehost-live&scope=site

Schultz, B. K., Storer, J., Watabe, Y., Sadler, J., & Evans, S. W. (2011). School-based treatment of attention-deficit/hyperactivity disorder. *Psychology in the Schools*, *48*(3), 254–262. https://doi.org/10.1002/pits.20553

Seifert, A., & Metz, A. (2017). The Effects of Inflated Seating Cushions on Engagement in Preschool Circle Time. *Early Childhood Education Journal*, *45*(3), 411–418. https://doi.org/10.1007/s10643-016-0797-7

Sermier Dessemontet, R., & de Chambrier, A.-F. (2015). The role of phonological awareness and letter-sound knowledge in the reading development of children with intellectual disabilities. *Research in Developmental Disabilities*, *41*, 1–12. https://doi.org/10.1016/j.ridd.2015.04.001

Sharma, U., & Nuttal, A. (2016). The impact of training on pre-service teacher attitudes, concerns, and efficacy towards inclusion. *Asia-Pacific Journal of Teacher Education*, *44*(2), 142–155. https://doi.org/10.1080/1359866X.2015.1081672

Sigstad, H. M. H. (2018). The role of special education teachers in facilitating peer relationships among students with mild intellectual disabilities in lower secondary school. *Journal of Intellectual Disabilities*, *22*(4), 378–393. https://doi.org/10.1177/1744629517715788

Singh, P., & Anekar, U. (2018). The importance of early identification and intervention for children with developmental delays. *Indian Journal of Positive Psychology*, *9*(2), 233–237. Retrieved from http://search.ebscohost.com.ezproxy.library.pfw.edu/login.aspx?direct=true&db=aph&AN=133608408&site=ehost-live&scope=site

Special Education Rules, 511 I.A.C. § 7 et seq. (May 2019)

Stiegler, L. N. (2015). Examining the Echolalia Literature: Where Do Speech-Language Pathologists Stand? *American Journal of Speech-Language Pathology*, *24*(4), 750–762. https://doi.org/10.1044/2015_AJSLP-14-0166

St. John, T., Dawson, G., & Estes, A. (2018). *Brief Report: Executive Function as a Predictor of Academic Achievement in School-Aged Children with ASD*. *Journal of Autism & Developmental Disorders* (Vol. 48, pp. 276–283). https://doi.org/10.1007/s10803-017-3296-9

Stone, D. H. (2019). The least restrictive environment for providing education, treatment, and community services for persons with disabilities: Rethinking the concept. *Touro Law Review, 35(1),* 523-590.

Taipalus, A. C., Hixson, M. D., Kanouse, S. K., Wyse, R. D., & Fursa, S. (2017). Effects of therapy balls on children diagnosed with attention deficit hyperactivity disorder. *Behavioral Interventions*, *32*(4), 418–426. https://doi.org/10.1002/bin.1488

Tambyraja, S. R., Farquharson, K., Logan, J. A. R., & Justice, L. M. (2015). Decoding Skills in Children With Language Impairment: Contributions of Phonological Processing and Classroom Experiences. *American Journal of Speech-Language Pathology*, *24*(2), 177–188. https://doi.org/10.1044/2015_AJSLP-14-0054

Tervo, R. C., & Asis, M. (2009). Parents' Reports Predict Abnormal Investigations in Global Developmental Delay. Clinical Pediatrics, 48(5), 513–521. https://doi.org/10.1177/0009922809332592

Terzi, A., Marinis, T., & Francis, K. (2016). The Interface of Syntax with Pragmatics and Prosody in Children with Autism Spectrum Disorders. *Journal of Autism & Developmental Disorders*, *46*(8), 2692–2706. https://doi.org/10.1007/s10803-016-2811-8

Tirado, M., & Saldaña, D. (2016). Readers with Autism Can Produce Inferences, but they Cannot Answer Inferential Questions. *Journal of Autism & Developmental Disorders*, *46*(3), 1025–1037. https://doi.org/10.1007/s10803-015-2648-6

Tirosh, E., & Jaffe, M. (2011). Global Developmental Delay and Mental Retardation a Pediatric Perspective. *Developmental Disabilities Research Reviews*, *17*(2), 85–92. https://doi.org/10.1002/ddrr.1103

Titeca, D., Roeyers, H., Loeys, T., Ceulemans, A., & Desoete, A. (2015). Mathematical Abilities in Elementary School Children with Autism Spectrum Disorder. *Infant & Child Development*, *24*(6), 606–623. https://doi.org/10.1002/icd.1909

Tressoldi, P., Rosati, M., & Lucangeli, D. (2007). Patterns of Developmental Dyscalculia With or Without Dyslexia. *Neurocase (Psychology Press)*, *13*(4), 217–225. https://doi.org/10.1080/13554790701533746

United States Department of Education (2019). Number of Children and Students Served Under *IDEA*, Part B, by Disability and State. Retrieved from https://www2.ed.gov/programs/osepidea/618-data/static-tables/2017-2018/part-b/child-count-and-educational-environment/1718-bchildcountandedenvironment-3.xlsx

Van der Molen, M. J., Henry, L. A., & Van Luit, J. E. H. (2014). Working memory development in children with mild to borderline intellectual disabilities. *Journal of Intellectual Disability Research*, *58*(7), 637–650. https://doi.org/10.1111/jir.12061

Vandewalle, E., Boets, B., Ghesquière, P., Zink, I., Oetting, J., & Dockrell, J. (2012). Development of Phonological Processing Skills in Children With Specific Language Impairment With and Without Literacy Delay: A 3-Year Longitudinal Study. *Journal of Speech, Language & Hearing Research*, *55*(4), 1053–1067. https://doi.org/10.1044/1092-4388(2011/10-0308)

Wadlington, E., & Wadlington, P. L. (2008). Helping Students With Mathematical Disabilities to Succeed. *Preventing School Failure*, *53*(1), 2–7. https://doi.org/10.3200/PSFL.53.1.2-7

Wagner, M., Newman, L., Cameto, R., Levine, P., & Marder, C. (2003). Going to school: Instructional Contexts, programs, and participation of secondary school students with disabilities. A report from the National Longitudinal Transition Study–2 (NLTS2). Menlo Park, CA: SRI International. Available from http://www.nlts2.org/reports/2003_12/nlts2_report_2003_12_complete.pdf

Washburn, E. K., Joshi, R. M., & Binks-Cantrell, E. S. (2011). Teacher knowledge of basic language concepts and dyslexia. *Dyslexia (10769242)*, *17*(2), 165–183. https://doi.org/10.1002/dys.426

Watkins, L., Ledbetter-Cho, K., O'Reilly, M., Barnard-Brak, L., & Garcia-Grau, P. (2019). Interventions for Students With Autism in Inclusive Settings: A Best-Evidence Synthesis and Meta-Analysis. *Psychological Bulletin*, *145*(5), 490–507. https://doi.org/10.1037/bul0000190

Winstead, O., Lane, J. D., Spriggs, A. D., & Allday, R. A. (2019). Providing Small Group Instruction to Children With Disabilities and Same-Age Peers. Journal of Early Intervention, 41(3), 202–219. https://doi.org/10.1177/1053815119832985

Wyatt, T., & Chapman-DeSousa, B. (2017). Teaching as Interaction: Challenges in Transitioning Teachers' Instruction to Small Groups. *Early Childhood Education Journal*, *45*(1), 61–70. https://doi.org/10.1007/s10643-015-0758-6