The Guide for Inclusive Education

BALTIMORE COUNTY PUBLIC SCHOOLS
Office of Special Education
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BALTIMORE COUNTY PUBLIC SCHOOLS

THE GUIDE FOR INCLUSIVE EDUCATION

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Foreword

We believe that in Baltimore County Public Schools diversity is our strength. Combining the talents of individuals from various backgrounds is what makes our school system unique.

Our students come from suburban, urban, and rural communities, from high- and low-income families, and they represent a unique American cross-section of races, religions, and backgrounds. In addition, they also come to us with different levels of preparation and with their own learning styles.

As educators, it is incumbent upon us to recognize our responsibility to nurture the strengths of each student and to prepare each for the college, career, and life opportunities ahead. Our challenge is to do this in a way that encourages a lifelong love of learning and that instills in our students an appreciation for themselves as individuals and for the diversity and creativity of others.

In Baltimore County Public Schools, we are building a culture of deliberate excellence. Our charge is not simply to do better, but to do our best. Rather than being satisfied that our scores meet standards, we will endeavor to have all of our scores exceed standards. Only by demanding the most from ourselves can we achieve the highest outcomes for our students.

S. Dallas Dance, Ph.D.
Superintendent

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WHAT IS INCLUSION?

What Does the Research Say About Inclusion?

A paradigm shift has occurred in the way students with special needs are served in schools. Special education is no longer viewed as "separate" education (Florian, 2010). Current research supports the benefits of inclusive education and recent brain research offers insight into evidence-based strategies that facilitate academic improvement (Willis, 2007). In an age of accountability, schools and teachers are responsible for ensuring the success of all students regardless of socio-economic status, cultural background, or disability (Spasovski, 2010). Learning outcomes, rather than student differences, are the focus of educators seeking to propel students forward by providing rich, accessible, academic experiences (Florian, 2010). Inclusive education empowers teachers and students to think and work collaboratively and promotes the notion that students with disabilities can learn alongside same-aged, non-disabled peers in the general education classroom (Willis, 2007). Research shows students with learning disabilities taught in such a manner demonstrate more independence and are socially better adjusted (Stainback, Stainback, & Forest, 1989; Sapon-Shevin, 2008).

What is Inclusion?

Baltimore County Public Schools (BCPS) is committed to improving achievement for all students, maintaining a safe and orderly learning environment in every school, and using resources effectively and efficiently. Our graduates must have the knowledge, skills, and attitudes to reach their potential as responsible, productive citizens in a global economy and multicultural society. The Guide for Inclusive Education focuses on the primary concern of all educators: what students learn, how they learn, and the degree of their achievements. This handbook is based on the principles of the *No Child Left Behind Act of 2001*, the *Individuals with Disabilities Act of 2004*, and Baltimore County Public Schools *Blueprint for Progress*.

Inclusion requires a commitment to the belief that each child can learn and succeed, that individual differences enrich us all, that students at risk for failure can overcome that risk through involvement in a thoughtful and caring community of learners in which each child contributes to the learning process, and that effective learning results from the collaborative efforts of all stakeholders.

The term inclusion represents an assumption that children with disabilities will participate and progress in the general education curriculum as appropriate, and that preschool children will participate in appropriate activities. The Least Restrictive Environment (LRE) is the educational setting where students with educational disabilities are fully participating members of the general education classroom, to the greatest extent appropriate, in their home school. Based on current research, students with disabilities can learn and develop when included in the general education classroom and when participating in extracurricular school activities with non-disabled peers. Providing related services, supplementary aids and services, and program modifications facilitates full participation of students with disabilities. Supports are also provided to school personnel.

Components of Effective Inclusion Include:

- A philosophy that placement of students with disabilities begins in the general education setting with age-appropriate peers.
- An interdisciplinary team planning approach for the ongoing provision of supports and the delivery of instruction.
- An instructional method that utilizes strategies that teach concepts and engage all students in the learning process.
- An attitude that the administration and faculty accept "ownership" for the success or failure of all students within their school community.

From: All Inclusive: A Collaborative Effort from the MSDE, Division of Special Division of Special Education, and Early Intervention Services and the Maryland Coalition for Inclusive Education

Factors Influencing Inclusion

No Child Left Behind Act of 2001

The purpose of this act is to ensure that all children have a fair, equal, and significant opportunity to obtain a high quality education. This purpose can be accomplished by the following:

- Closing the achievement gap between students of different ethnicities, socioeconomic classes, genders, and making sure that no child is left behind;
- Improving the academic performance of all students by providing equal access to curriculum and adequate yearly progress;
- Providing a high quality education by "highly qualified" teachers;
- Promoting a learning environment that is safe, drug free, and conducive to learning; and
- Ensuring that all students graduate from high school.

No Child Left Behind Act of 2001. U.S. Public Law 107, 110th Cong., 8 January 2001

Reauthorization of Individuals with Disabilities Education Act of 2004

IDEA requires that a continuum of placement options be available to meet the needs of students with disabilities. The law states, "To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily."

The Reauthorization of IDEA. Section 612 (a) (5), 2004.

Blueprint for Progress: Realizing the Vision

Vision Statement:
Baltimore County Public Schools' graduates will have the knowledge, skills, and attitudes to reach their potential as responsible, productive citizens in a global economy and multicultural society.

Mission Statement:
Baltimore County Public Schools' mission is to provide a quality education that develops the content knowledge, skills, and attitudes that will enable all students to reach their maximum potential as responsible, life-long learners and productive citizens.

Focused on Quality; Committed to Excellence. Blueprint for Progress: Realizing the Vision. Adopted by the Board of Education, January 14, 2003. (Most recent update August 2010-2011).

Maryland State Department of Education, Division of Special Education/Early Intervention Services

"The Division of Special Education/Early Intervention Services collaborates with families, local early intervention systems, and local school systems to ensure that all children and youth with disabilities have access to appropriate services and educational opportunities to which they are entitled under federal and state laws; and assists local early intervention systems and local school systems to comply with federal and state regulations and to implement policies and procedures through grant funding, professional development opportunities, technical assistance, and monitoring."

http://www.msde.maryland.gov/MSDE/divisions/earlyinterv/

Quality Indicators for Inclusive Education

- School administrators clearly support and actively participate in providing leadership, guidance, and policies consistent with an inclusive philosophy.
- School Improvement Plans address school-based needs for including students with disabilities.
- All students receive instruction within an age-appropriate general education curricular framework.
- Teachers differentiate instruction for a variety of learners' needs by incorporating visual, tactile, and kinesthetic materials and experiences.
- Teachers plan accommodations for students with disabilities, based on their IEP, and incorporate those accommodations into lesson plans and everyday instruction.
- Teachers use evidence-based instructional practices that are based on individual student learning styles and needs.
- General educators, special educators, and related service providers have time for collaborative planning.
- The roles and responsibilities of teachers and other staff are clearly defined.
- Instructional teams use a student-centered approach to planning and solution-finding strategies to solve problems.
- Students with disabilities receive most, if not all, of their special education and related services (e.g., physical therapy, occupational therapy, and speech/language therapy) within the general education classroom, based on their Individual Education Program (IEP).
- All staff view the instruction of students with disabilities as a shared responsibility between special and general educators.

Source: Quality Indicators of Inclusive Education. Maryland Coalition for Inclusive Education (MCIE) October 200

Inclusive Strategies

- Scaffold the lesson to provide various levels of support. Gradually remove supports as students progress toward mastery.
- Tier lessons to meet the needs of students at various readiness levels.
- Vary instructional methods and materials.
- Cooperative learning
- Graphic organizers
- Study guides
- Build rapport with students, co-teachers, and other adult support.
- Reinforce effort and provide recognition.
- Build self-esteem while promoting independence.
- Set high expectations.
- Model instruction.
- Make instruction relevant and meaningful.
- Offer choice.
- Monitor progress consistently and continually.
- Provide frequent, quality feedback.

References

Stephen D. Kroeger, Cathy Burton, Christopher Preston, "Integrating evidence-based practices in middle science reading", *Council for Exceptional Children*, 2009, pp. 6-15.

Robert J. Marzano, Debra Pickering, Jane E. Pollock, *Classroom instruction that works*, (Alexandria, VA: Association for Supervision and Curriculum Development 2001).

Judy Willis, *Brain-friendly strategies for the inclusion classroom*, (Alexandria, VA: Association for Supervision and Curriculum Development 2007).

Characteristics of Students with Learning Disabilities

Students within a general education setting often demonstrate many different types of characteristics related to disabilities. Listed below are some of the more common areas/ characteristics:

Frequently displayed characteristics of students with learning disabilities are:

- Short attention span.
- Poor memory.
- Difficulty following directions.
- Inability to discriminate between/among letters, numerals, or sounds.
- Poor reading and/or writing ability.
- Eye-hand coordination problems; poorly coordinated.
- Difficulties with sequencing.
- Disorganization and other sensory difficulties.

Other characteristics that may be present in students with learning disabilities are:

- Performs differently from day to day.
- Responds inappropriately in many instances.
- Distractible, restless, impulsive.
- Says one thing but means another.
- Doesn't adjust well to change.
- Difficulty listening and remembering.
- Difficulty telling time and knowing right from left.
- Difficulty sounding out words.
- Reverses letters.
- Places letters in incorrect sequence.
- Difficulty understanding words or concepts.
- Delayed speech development; immature speech.

For more information visit the Learning Disabilities of America Web site at http://www.ldanatl.org/aboutld/teachers/understanding/symptoms.asp

Common Types of Disabilities in the Inclusive Classroom

Learning Disabilities

Learning disabilities are neurologically-based processing problems. These processing problems can interfere with learning basic skills such as reading, writing, or math. They can also interfere with higher level skills such as organization, time planning, and abstract reasoning.

The types of learning disabilities (LD) are identified by the specific processing problem. They might relate to getting information into the brain **(Input)**, making sense of this information **(Organization)**, storing and later retrieving this information **(Memory)**, or getting this information back out **(Output)**. Thus, the specific types of processing problems that result in learning disabilities might be in one or more of these four areas.

Each individual will have his or her unique pattern of LD. This pattern might cluster around specific common difficulties. For example, the pattern might primarily reflect a problem with language processing: auditory perception, auditory sequencing/abstraction/organization, auditory memory, and a language disability. Or the problem might be more in the visual input to motor output areas. Some people with LD will have a mixture of both.

Input

Information is primarily brought into the brain through the eyes (visual perception) and ears (auditory perception). An individual might have difficulty in one or both areas.

Auditory Perception (Also called Receptive Language)
The individual might have difficulty distinguishing subtle differences in sound (called phonemes) or might have difficulty distinguishing individual phonemes at a normal rate. Either problem can result in difficulty processing and understanding what is said. Individuals might have difficulty with what is called auditory figure-ground. The individual may often have difficulty identifying what sound(s) to listen to when there is more than one sound.

Visual Perception
Individuals might have difficulty distinguishing subtle differences in shapes (called graphemes). They might rotate or reverse letters or numbers (d, b, p, q, 6, 9); thus misreading the symbol. Some might have a figure-ground problem, confusing what figure(s) to focus on from the page covered with many words and lines. They might skip words, skip lines, or read the same line twice. Others might have difficulty blending information from both eyes to have depth perception. They might misjudge depth or distance, bump into things or have difficulty with tasks where this information is needed to tell the hands or body what to do. If there is difficulty with visual perception, there

could be problems with tasks that require eye-hand coordination (visual motor skills) such as catching a ball, doing a puzzle, or picking up a glass.

Integration
Once information is recorded in the brain (input), three tasks must be carried out in order to make sense of or integrate this information. First, the information must be placed in the right order, or sequenced. Then, the information must be understood beyond the literal meaning, abstraction. Finally, each unit of information must be integrated into complete thoughts or concepts, organization.

Sequencing
The individual might have difficulty learning information in the proper sequence. Thus, the individual might get math sequences wrong, have difficulty remembering sequences such as the months of the year, the alphabet, or the times table; or the individual might write a report with all of the important facts but not in the proper order.

Abstraction
A person might have difficulty inferring the meaning of individual words or concepts. Jokes, idioms, sarcasm, or puns are often not understood. The individual might have problems with words that might have different meanings depending on how they are used, for example, "the dog" refers to a pet. "You dog" is an insult.

Organization

An individual might have difficulty organizing materials', losing, forgetting, or misplacing papers, notebooks, or homework assignments. The individual might have difficulty organizing the environment, such as a bedroom. Some might have problems organizing time. They have difficulty with projects due at a certain time or with being on time. (Organization over time is referred to as Executive Function.)

Memory

Three types of memory are important to learning.

Working memory refers to the ability to hold on to pieces of information until the pieces blend into a full thought or concept. For example, reading each word until the end of a sentence or paragraph and then understanding the full content.

- ✓ *Example of working memory:* An individual reads a sentence and holds on to it. Then the individual reads the next sentences. By the end of the paragraph, the person pulls together the meaning of the full paragraph. This is working memory.

Short-term memory is the active process of storing and retaining information for a limited period of time. The information is temporarily available but not yet stored for long-term retention.

- ✓ *Example of short-term memory:* An individual continues to read the full chapter and studies it. The Information is retained long enough to take a test and do well. This is short-term memory.

Long-term memory refers to information that has been stored and that is available over a long period of time. Individuals might have difficulty with auditory memory or visual memory.

- ✓ *Example of long-term memory*: Unless information is reviewed and studied over a longer period of time, it is not retained. With more effort over time, the information might become part of a general body of knowledge. It is now part of the individual's long-term memory.

Output

Information is communicated by words (language output) or through muscle activity such as writing, drawing, or gesturing (motor output). An individual might have a language disability (also called expressive language disability) or a motor disability.

Language Disability

Language output can be classified as being spontaneous or on demand.

- Spontaneous language means that the person initiates the conversation. Thoughts have been organized and words are found before speaking.
- Demand language means that an individual is asked a question or asked to explain something. The individual must then organize his or her thoughts, find the right words, and speak at the same time.

Most individuals with a language disability have little difficulty with spontaneous language. However, during a demanding situation, the same individual might struggle to organize his or her thoughts or to find the right words.

Motor Disability

An individual might have difficulty coordinating teams of small muscles, called a fine motor disability. The individual might have problems with coloring, cutting, writing, buttoning, or tying shoes. Individuals might also have difficulty coordinating teams of large muscles, called a gross motor disability. An individual with a gross motor disability is often awkward when running or jumping.

For more information visit the Learning Disabilities of America Web site at *http://www.ldanatl.org/aboutld/teachers/understanding/types.asp*.

Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADHD)

Attention Deficit Hyperactivity Disorder (ADHD) is covered under the federal disability coding of Other Health Impairment. ADHD is a condition that becomes apparent in some children in the preschool and early school years. It is hard for these children to control their behavior and/or pay attention.

ADHD is not considered to be a learning disability. It can be determined to be a disability under the Individuals with Disabilities Education Act (IDEA), making a student eligible to receive special education services. However, ADHD falls under the category "Other Health Impaired" and not under "Specific Learning Disabilities." Many children with ADHD – approximately 20 to 30 percent – also have a specific learning disability.

The principle characteristics of ADHD are **inattention**, **hyperactivity**, and **impulsivity**. There are three subtypes of ADHD recognized by professionals.

1. **Predominantly hyperactive/impulsive type:** The individual does not show significant inattention.
2. **Predominantly inattentive type:** The individual does not show significant hyperactive-impulsive behavior. It is referred to as ADD.
3. **Combined type**: The individual displays both inattentive and hyperactive-impulsive symptoms.

Common Signs and Symptoms of ADHD

- Fails to give close attention to details or makes careless mistakes.
- Forms letters or words poorly; messy writing.
- Has difficulty sustaining attention in tasks or play activities.
- Lacks follow– through on instructions and fails to finish schoolwork or chores.
- Avoids or strongly dislikes tasks (such as schoolwork) that require sustained mental effort
- Is forgetful in daily activities.
- Has difficulty organizing tasks and activities.
- Loses things necessary for tasks or activities (pencils, assignments, tools).
- Shows difficulty engaging in leisure activities quietly.
- Acts as if "driven by a motor" and cannot remain still.
- Blurts out answers to questions before the questions have been completed or often interrupts others.

Strategies for Addressing ADHD in the Classroom

- Allow a child to change work sites frequently while completing homework or studying.
- Assign tasks involving movement such as passing out papers or running errands.
- Use music as a tool for transitioning, song = task.
- Vary tone of voice: loud, soft, whisper.
- Stage assignments and divide work into smaller chunks with frequent breaks.

- Teach students to verbalize a plan before solving problems or undertaking a task.
- Permit a child to do something with hands while engaged in sustained listening: stress ball, worry stone, paper folding, clay.
- Use inconspicuous methods such as a physical cue to signal a child when she or he appears inattentive.
- Provide opportunities for student to show divergent, creative, imaginary thinking and get peer recognition for originality.
- Employ multi-sensory strategies when directions are given and lessons presented.

For more information visit the Learning Disabilities of America Web site at *http://www.ldanatl.org/aboutld/teachers/understanding/adhd.asp*

Autism Spectrum Disorders

The main signs and symptoms of autism involve language, social behavior, and behaviors concerning objects and routines:

- Communication—both verbal (spoken) and non-verbal (unspoken, such as pointing, eye contact, or smiling).
- Social interactions—such as sharing emotions, understanding how others think and feel (sometimes called empathy), and holding a conversation, as well as the amount of time spent interacting with others.
- Routines or repetitive behaviors—often called stereotyped behaviors, such as repeating words or actions, obsessively following routines or schedules, playing with toys or objects in repetitive and sometimes inappropriate ways, or having very specific and inflexible ways of arranging items.

Health care providers think of autism as a "spectrum" disorder—a group of disorders with a range of similar features. In general, the average age of autism diagnosis is currently three years old. Based on their specific strengths and weaknesses, people with autism spectrum disorders (ASDs) may have mild symptoms or more serious symptoms, but they all have an ASD.

Currently, the Autism Spectrum Disorders category includes:

- Autistic disorder (also called "classic" autism)
- Asperger syndrome
- Pervasive Developmental Disorder Not Otherwise Specified (or atypical autism)

In some cases, health care providers use a broader term—pervasive developmental disorders (PDD)—to describe autism. The PDD category includes the ASDs mentioned above and: childhood disintegrative disorder and Rett syndrome.

Students on the Autism Spectrum may share some or all of the following characteristics, which can vary from mild to severe:

- Communication needs
- Difficulty relating to people, things, and events
- Playing with toys and objects in unusual ways
- Difficulty adjusting to changes in routine or to familiar surroundings
- Repetitive body movements or behaviors
- Difficulty with sensory regulation, sensory processing, and sensory integration

For more information about Autism visit the National Institute of Child Health and Human Development (NICHD) Web site at: http://www.nichd.nih.gov/health/topics/asd.cfm.

Strategies for Addressing Autism Characteristics in the Classroom

- Provide visual cues.
- Establish routines and structure in the classroom.
- Provide visual schedules with frequent reminders.

- Familiarize students with new materials/information prior to using them in a lesson.
- Use organizers to highlight significant topics.
- Relate content information to student interests.
- Reduce the number of transitions throughout the day.
- Be familiar with the student's sensory needs/preferences.
- Give directions step-by-step, verbally, visually, and by providing physical supports or prompts.
- Be as concrete and explicit as possible in your instructions and feedback.
- Build opportunities for the student to have social and collaborative interactions throughout the regular school day.
- Have consistent routines and schedules.
- Prepare the student for change by telling him/her what is going to be different and what to expect or do. (e.g., a field trip or assembly)

For more information about strategies for Autism visit the Council for Exceptional Web site at: http://www.cec.sped.org/AM/Template.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=2424.

Emotional Disability

Emotional Disability is a condition that shows signs of one or more of the following characteristics over a long period of time and to the degree that adversely affects a child's educational performance:

- An inability to learn that cannot be explained by intellectual, sensory, or health factors.
- An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
- Inappropriate types of behavior or feelings under normal circumstances.
- A general pervasive mood of unhappiness or depression.
- A tendency to develop physical symptoms or fears associated with personal or school problems.
- Hyperactivity (short attention span, impulsiveness).
- Aggression or self-injurious behavior (acting out, fighting).
- Withdrawal (not interacting socially with others, excessive fear or anxiety).
- Immaturity (inappropriate crying, temper tantrums, poor coping skills).
- Learning difficulties (academically performing below grade level).

Children with the most serious emotional disabilities may exhibit distorted thinking, excessive anxiety, bizarre motor acts, and abnormal mood swings.

Many children who do not have emotional disturbance may display some of these same behaviors at various times during their development. However, when children have an emotional disability, these behaviors continue over long periods of time. Their behavior signals that they are not coping with their environment or peers.

For more information about emotional disabilities visit the National Dissemination Center for Children with Disabilities (NICHCY) Web site at: http://nichcy.org/disability/specific/emotionaldisturbance#def.

Strategies for Addressing Emotional Disabilities

- Provide positive behavior supports.
- Be familiar with the student's Functional Behavior Assessment and Behavior Intervention Plan.
- Provide a consistent and structured behavior approach for addressing behavior.
- Provide social skills instruction.

For more information consult the section on "Behavioral Management Strategies in the Inclusive Classroom" in this guide.

Mild Intellectual Disabilities

Intellectual disability is characterized both by a significantly below-average score on a test of mental ability or intelligence and by limitations in the ability to function in areas of daily life, such as communication, self-care, and getting along in social situations and school activities.

Children with an intellectual disability can and do learn new skills, but they develop more slowly than children with average intelligence and adaptive skills. There are different degrees of intellectual disability, ranging from mild to profound. A person's level of intellectual disability can be defined by their intelligence quotient (IQ), or by the types and amount of support they need.

Intellectual disability can start anytime before a child reaches the age of 18 years. It can be caused by injury, disease, or a brain abnormality. Children with intellectual disabilities may take longer to learn to speak, walk, and take care of their personal needs such as dressing or eating. They are likely to have trouble learning in school. They will learn, but it will take them longer. There may be some things they cannot learn.

There are many characteristics of an intellectual disability. For example, children with an intellectual disability may:

- Sit up, crawl, or walk later than other children.
- Learn to talk later, or have trouble speaking.
- Find it hard to remember things.
- Not understand how to pay for things.
- Have trouble understanding social rules.
- Have trouble seeing the consequences of their actions,
- Have trouble solving problems.
- Have trouble thinking logically.

Strategies for Students with Mild Intellectual Disabilities

- Use concrete language when speaking.
- Use manipulatives and other concrete models during lessons.
- Plan for tiered instruction based on ability level of students.
- Structure and scaffold tasks according to individual levels.
- Ensure that time expectations/task components are clear and concrete.
- Include content, process, and product appropriate to the level of the students.
- Demonstrate what you mean rather than giving verbal directions.

- Break longer, new tasks into small steps.
- Incorporate adaptive skills into daily instruction
- Provide extended time

For more information about strategies for addressing Mild Learning Disabilities visit the National Institute of Child Health and Human Development (NICHD) Web site at: http://nichcy.org/disability/specific/intellectual#def.

Twice Exceptional Students

Twice exceptional is a term used to describe students who are gifted but also have a disability. Students who are twice exceptional often display a discrepancy between their measured academic potential and their actual classroom performance. It is not uncommon for gifted children with disabilities to use their intelligence to try to circumvent the disability. However, in doing this, the disability may appear less severe because the student is using his/her intellect to cope, while the efforts expended in coping may hinder other expressions of giftedness.

For more information on twice exceptional students visit the Council for Exceptional Children Web site at:
http://cec.sped.org/AM/Template.cfm?Section=Twice_Exceptional&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=37&ContentID=5634.

Strategies for Teaching Twice Exceptional Students

- Be aware that many students who have learning difficulties are global learners who prefer visual and tactile-kinesthetic formats for learning success.
- Teach concepts first and details second.
- Assist the student to identify realistic short term goals for themselves.
- Connect previous learning to new content.
- Design lessons that address all senses.
- Provide specific instruction on organizational strategies.
- Incorporate technology into the learning process
- Design assessments and provide accommodations so that the assessment truly measures the student's knowledge while limiting the effect the student's disability has on his or her ability to demonstrate knowledge.

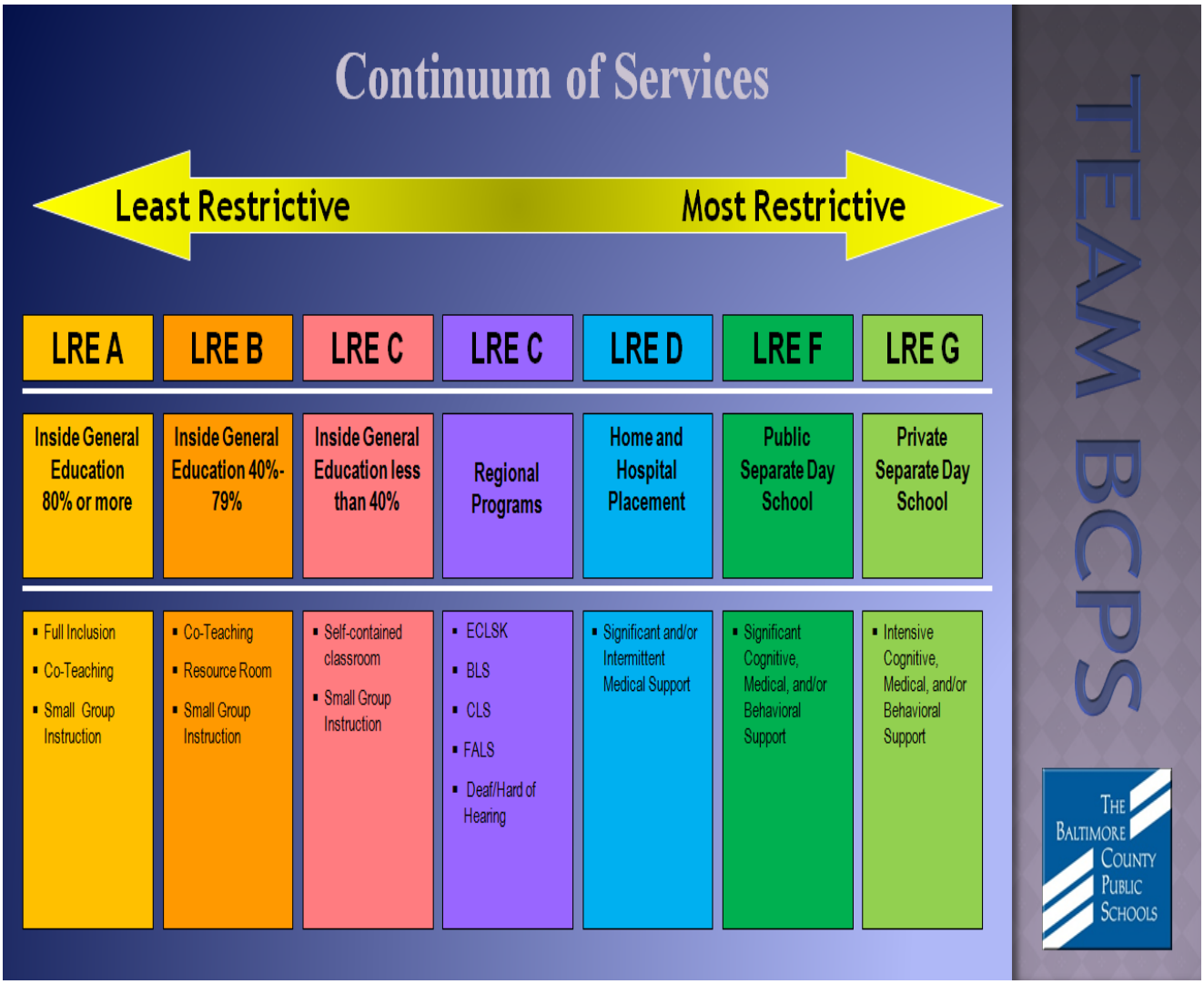
References

Winebrenner, Susan (2006). Teaching Strategies for Twice-Exceptional Students. *Intervention in School and Clinic*, 38 (3): 131-137.

Continuum of Services

Federal law requires that "to the maximum extent appropriate, children with disabilities including children in public or private institutions or care facilities, are educated with children who are nondisabled; and special classes, separate schooling or other removal of children with disabilities from regular educational environment occurs only if the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily."(Individuals with Disabilities Act of 2004, Pub. L. No. 108-446, 20 U.S.C. 1400 *et seq.* (2004).)

In order to ensure a Free Appropriate Public Education (FAPE) for students, Baltimore County Public Schools offers a level of continuum of supports within each of its schools and has also identified the following continuum of service delivery model.



Behaviors and Behavioral Management Strategies in the Inclusive Classroom

Effectively managing an inclusion classroom requires that the teachers not only be able to implement the additional supports required for the special education students, but also be able to manage the behaviors of ***all*** students within the classroom. Therefore it is necessary for all teachers within an inclusion setting to have a basic understanding of behavioral principles.

Functions of Behavior:

Student behavior is often the result of a need that goes unmet. Listed below are some basic functions of behavior and possible messages that students use to communicate their needs.

FUNCTIONS OF BEHAVIOR	POSSIBLE STUDENT MESSAGES TO INDICATE FUNCTION OF BEHAVIOR
1. To gain access to social interaction	"Play with me." "Watch what I am doing." "Can I have a turn, too?" "I want to be part of the group."
2. To gain access to activities, objects	"I want to go outside." "I want what he has." "Let's play a game."
3. To terminate/ avoid unwanted situations	"I don't know." "Leave me alone." "This is too hard." "I need help." "I don't want to do this." "Don't tell me what to do." "I'm bored." "I need a break." Students constantly needing a bathroom break
4. To gain access to stimulating events	"I like doing this." Students always choosing the same activities

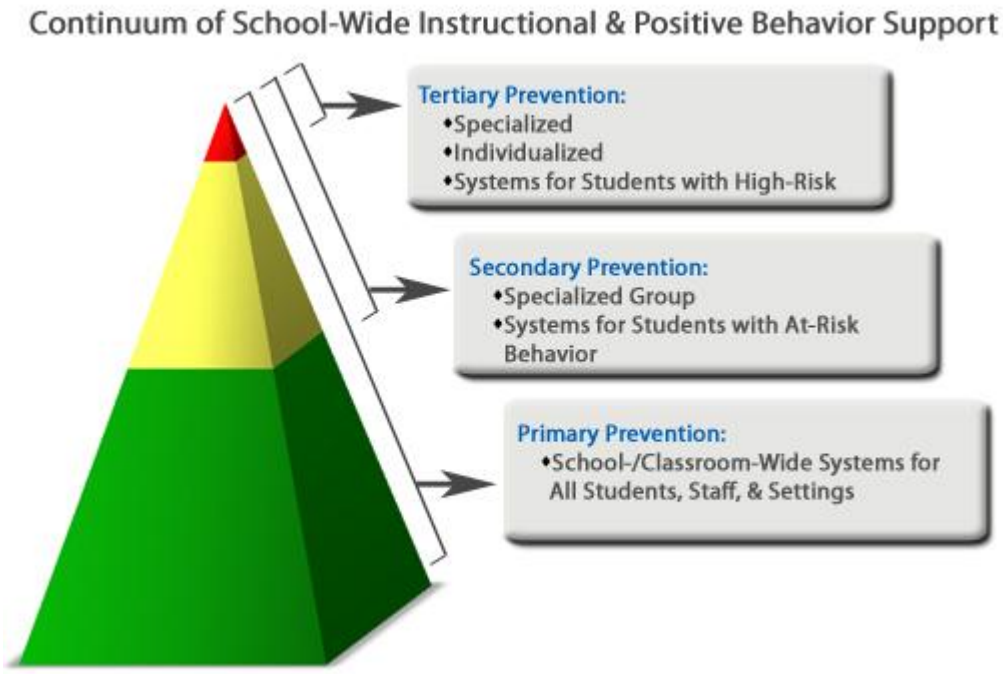
Gartner, A. & Lipsky, D. K. (2002). *Inclusion: A service, not a place*. Port Chester, NY: Dude Publishing.

Positive Behavioral Interventions and Supports:

What is Meant by Positive Behavioral Interventions and Supports?

Positive behavioral interventions and supports are defined by The TA Center on Positive Behavioral Interventions and Supports as a decision–making framework that guides selection, integration, and implementation of the best evidence-based academic and behavioral practices for improving important academic and behavior outcomes for all students.

Schools utilizing a Schoolwide Instructional & Positive Behavior Support program break their evidence-based best practices into a three-tiered prevention logic. This logic requires that all students receive supports at the universal or primary tier. If the behavior of some students is not responsive, more intensive behavioral supports are provided, in the form of a group contingency (selected or secondary tier) or a highly individualized plan (intensive or tertiary tier). See graphic below:



For more information visit the Office of Special Education Programs, US Department of Education Web site for Positive Behavioral Interventions and Supports at: *http://pbis.org/default.aspx*.

Why Do Schools Use Positive Behavioral Supports and Interventions?

Research supports that the implementation of Schoolwide Positive Behaviors is associated with reductions in problem behavior, reductions in office discipline referrals for problem behavior, and reductions in the proportion of students receiving out-of-school suspensions. *(Horner, R.H., Sugai, G., & Anderson, C.M. (2010). Examining the evidence base for school-wide positive behavior support. Focus on Exceptional Children, 42 (8), 1-12.)*

Federal law also requires the implementation of positive behavioral interventions and supports. The use of "Positive behavioral interventions and supports" for students whose behavior impedes their learning is required by the Individuals with Disabilities Education Act of 2004. *(Individuals with Disabilities Act of 2004, Pub. L. No. 108-446, 20 U.S.C. 1400 et seq. (2004))*

Positive Behavior Interventions and Supports in the Inclusive Classroom

Listed below are examples of classroom management strategies that can be used in the inclusive classroom:

Structure	Communication
Schedule posted Rules posted Clean, organized environment Room arrangement Daily jobs for students	Expectations stated positively to students [avoid "no," "don't," "stop"] Directions given versus questions Positive and meaningful communication between home and school
Consistency	**Positive reinforcement**
Routines established (i.e., pencil, trash, bathroom, drinks, etc.) Expectations clearly stated and remain the same every day	5:1 ratio (praise, incentives, goal setting)

Listed below are examples of surface management strategies that can be used in the inclusive classroom:

- Proximity control –moving near a child in a discreet fashion to help monitor the child's behavior.
- Touch control – i.e., hand on shoulder.
- Frequent circulation – Teacher moves about the room often to check on progress of students. Parent checks up on child's plans when away from home.
- Planned ignoring – Ignore minor behaviors, not the child, and redirect.
- Signal interference–parent/teacher uses a prearranged signal to alert the child to his/her misbehavior in an effort to stop the behavior before it escalates.
- Respectful reprimands –Private and discreet interactions with child regarding the misbehavior .
- Humor – Not sarcasm.
- Prompting Hierarchies:

    - One, two, three.
    - Verbal, gesture, physical.
    - Please, you need, you have a choice.
- Manners modeling – Using please and thank you.
- Relationship building:
    - Use child's name.
    - Learn general likes and dislikes.
    - Learn at least one detail about child's family or school activity.
- Respect personal space:
    - Avoid hovering overtop of child.
    - Request permission before touching a child's belongings.
- Minimize down time – keep children busy.
- Assign special home/class jobs as needed.
- Utilize individual child's strengths in the classroom or in the home.

(Baltimore County Public Schools, Office of Special Education (Fall 2006). "Improving Student Achievement through effective Behavior Management: Strategies for Parents, Teachers, and Support Staff.")

Proactive Strategies:

One of the most successful ways to successfully manage behaviors in the classroom is to incorporate proactive strategies on a daily basis that prevent negative behaviors from manifesting. Listed below are some proactive strategies for preventing negative classroom behaviors from occurring:

<u>Instructional Strategies</u>

- Avoid giving difficult problems for independent seatwork.
- Avoid requiring repetitive tasks.
- Shorten lessons.
- Reduce the number of problems on a page.
- Mix difficult problems with easier ones.
- Mix tasks that students have mastered with ones that have not been mastered.
- Provide choices of tasks, materials, activities, etc.
- Include student preferences whenever possible.
- State clear expectations at the start of a lesson.
- Offer frequent breaks.

<u>Social Strategies</u>

- Avoid long delays.
- Change voice intonation regularly.

- Modify schedules to encourage movement and vary types of activities.
- Schedule non-preferred activities with preferred ones.
- Provide students with clear and easily understood directions.
- Schedule preferred activities in daily routines.
- Provide opportunities for students to sit alone when needed.

(Gartner, A. & Lipsky, D. K. (2002). Inclusion: A service, not a place. Port Chester, NY: Dude Publishing.)

Setting Limits:

Although being proactive can greatly reduce student misbehavior, there will be times when behaviors occur and need to be addressed in the classroom. To successfully address student behavior, the teacher should set limits on inappropriate behaviors. Effective limits should be clear and concise, consistent, and enforceable.

Steps for Effectively Setting Limits:

1. Explain exactly which behavior is inappropriate.
    - Don't assume that the student automatically knows which behavior is inappropriate.

2. Explain why the behavior is inappropriate.
    - Remain calm and confident when explaining why the behavior is inappropriate.
    - Don't take the inappropriate behavior personally. Remember you are the professional.

3. Present reasonable choices or consequences.
    - Consequences should be immediate, logical, short–lived, appropriately related to the offensive behavior, escalating, and used to educate the student.

4. Allow time.
    - Providing time allows the student to process the choices they were provided and to make their decision.

5. Enforce the consequences.
    - When enforcing consequences remember to avoid power struggles.

For more information on effectively setting limits visit the National Crisis Prevention Institute Web site: http://www.crisisprevention.com/Specialties/Nonviolent-Crisis-Intervention.

Consequences/Teacher Responses:

Once limits have been given, it is imperative that consequences be enforced if the student misbehavior continues. It is important to remember that consequences must be enforceable in order to be effective.

Guidelines for Consequences

- Make sure the consequence is logically related to the misbehavior.
- Act: don't talk. Too much talk interferes with the effectiveness of a consequence.
- Never get involved with a power struggle. You will always lose.
- Remain calm. Never act in anger.
- Be firm, but fair. Don't deviate from the consequence that was identified in the limit–setting stage.
- Focus on the present. Don't address past behaviors when administering a consequence.
- Present the consequence matter-of-factly.

(Saphier, J. & Gower, R. (1997). *The skillful teacher: Building your teacher skills* (5th ed.). Acton, Massachusetts: Research for Better Teaching, Inc.)

What Does the Research Say About Collaboration and Co-Teaching?

Researchers report that co-teaching is a method by which educators can work collaboratively to deliver quality instruction (Murawski & Hughes, 2009). However, it is essential for educators to work "collaboratively." According to Scruggs, et al (2007),(the key components of successful co-teaching and collaboration between the general education teacher and the special education teacher are their attitude, availability of planning time, voluntary participation, mutual respect, administrative support, and a shared philosophy of instruction and behavior management.)

Although co-teaching as an instructional method has been used for two decades, it hasn't been until recently that data and research has been conducted and collected regarding its effectiveness on student learning. This has been primarily a result of the Act of 2001and the Individuals with Disabilities Education Act, which hold educators accountable for the learning of all students.

Recent research indicates co-teaching is in fact an effective means to meeting the needs of individual students. In one study by Hang and Rabren (2010), students in co-taught classes were shown to have higher grades in core courses and attend more school days than those in pullout programs. Their teachers also perceived these students to improve upon their overall academic performance during their co-taught years. In addition, another positive effect of co-teaching indicates that teachers in co-taught classes engage in more active instruction, learn different strategies from one another, and are more easily able to differentiate in the classroom (Hang & Rabren, 2010).

Definition of Collaboration

A collaborative team is a group of individuals who share common beliefs and work toward common goals. Collaborative teams build on the strengths of their members and grow and change as problems are addressed and solved. Collaborative planning for each school will be unique, based upon the needs of the student population and faculty in a given year. Shared decision making, flexibility, and creative problem-solving strategies will help teachers in their transition to restructured roles.

Historically, teaching has been a profession in which individuals took responsibility for the outcomes of a group of students. It has not been a collaborative activity whereby a group of teachers work as colleagues for the purpose of developing creative instructional solutions through shared responsibility for the outcomes of a group of students.

Collaboration is based on the premise that a group's effectiveness exceeds what individuals may accomplish on their own. Collaborative teams benefit by sharing diverse knowledge, ideas, and levels of expertise (Maryland Coalition for Inclusive Education & Maryland State Department of Education, 1999).

Elements of Collaboration

Having a Shared Philosophy

- All students can learn.
- Appreciate and understand diverse learning styles/preferences.
- Classroom procedures are clear and consistent.
- Behavior is addressed proactively.
- Student inputs and choices are key.
- Parents should play a role in the collaborative process.

Establishing Effective Communication

- Meet regularly to discuss, plan, and reflect on best practices.
- All members of the collaborative partnership are included in the decision-making process.
- Be active listeners to one another.
- Be respectful of others and their contributions.
- Accept mutual responsibility for successes and failures.

Maintaining Positive Attitudes

- Voice questions and concerns in a productive manner.
- Share constructive feedback.
- Be supportive of all collaborative partners.
- Show flexibility.
- Acknowledge efforts.
- Share materials and resources.

Clarifying Roles and Responsibilities

- Agree on specific roles and responsibilities.
- Clearly outline the weekly schedule, objectives, and individual assignments.
- Share duties equitably whenever possible.
- Recognize that all collaborative team members are equally important to all students.
- Provide support to help members fulfill roles.
- Provide regular opportunities for both teachers to contribute to instruction in class.

Maximizing Effectiveness

- Rely on each other for technical expertise, shared resources, and moral support.
- Know where to find and how to use other supports within the system as needed.
- Use a collaborative problem-solving process.
    - Clearly state the problem.
    - Brainstorm possible solutions.
    - Select appropriate solutions.
    - Develop a plan to implement solutions: include established responsibilities, timeline, and location.
    - Implement the plan: follow established procedures and leave room for flexibility.
    - Reflect on the outcome: evaluate its effectiveness and modify as needed.

Communication for Effective Collaboration

Successful collaboration is more than planning lessons in which both educators are essential. It also relies on effective and ongoing communication. The following are some suggested topics for discussion to help build and maintain positive working relationships. Most collaborative teams find they may have to add a few topics to the list to meet their needs.

Instructional beliefs: Collaborative teams need to reach an agreement on their beliefs about the ability of all students to learn, and the rights of students to experience success in their classroom, regardless of their ability level and their own role in student learning. They also must determine each team member's role in student learning.

Parity Signals: Collaborative teams understand and signal to others that they are equal partners. This may be demonstrated by having appropriate desks and storage space, and by using both teachers' names on the classroom entrance, schedules, and correspondence.

Confidentiality: Collaborative teams must agree on which of their activities are public matters and which are to be considered confidential classroom matters. The issues of confidentiality and trust are essential to the success of collaboration. Events of the day should not be replayed in the hallway, lunchroom, or other public areas unless agreed upon by the co-teaching team.

Noise: Educators tolerate varying levels of noise in the classroom. Discuss preferences and instructional style related to noise, and reach an agreement on what is acceptable. Develop a signal to indicate when noise is approaching an unacceptable level.

Routines: Collaborative teams clearly define organizational and instructional routines. By determining the system of organization and routines before co-teaching, the team avoids conflict. Issues such as the handling of materials, attendance, grading, monitoring student progress, homework policies, and developing organizational strategies for students' daily work and notebooks may be topics for discussion.

Discipline: Collaborative teams define for one another their beliefs relative to student behavior and discipline. Agree on classroom rules. Establish the consequences for both acceptable and unacceptable behavior.

Feedback: Collaborative teams need to periodically review and discuss shared efforts in the classroom or school environment to maintain their professional relationship. Consider aspects of instruction that have been successful, as well as those that need refinements. Debrief in a manner that is concise, specific, and geared to change.

Pet Peeves: Most educators have pet peeves related to the students and the classroom environment that may interfere with positive working relationships. Share pet peeves, respect differences, and discuss possible alternatives.

Source: Cook, L. & Friend, M. (November 2005) Co-Teaching: Guidelines for Creating Effective Practices. *Focus on Exceptional Children*. 28(3)

Guide Questions for Creating Effective Collaborative Relationships

Instructional Beliefs
- ✓ What are our overriding philosophies about the roles of teachers, paraeducators, and students?
- ✓ How do our instructional beliefs affect our instructional practice?

Parity Signals
- ✓ How will we convey to students and others that we are equal partners in the classroom?
- ✓ What steps can we take to ensure a sense of parity during instruction?

Confidentiality
- ✓ What information about our teaching do we want to share with others?
- ✓ Which information should not be shared?
- ✓ Which information about students can be shared with others?
- ✓ Which information should not be shared?

Noise
- ✓ What noise level are we comfortable with in the classroom?
- ✓ What procedures should we follow when the noise reaches an unacceptable level?
- ✓ At what points in the lesson is it appropriate to have more/less noise?

Classroom Routines
- ✓ What are the instructional routines for the classroom?
- ✓ What are the organizational routines for the classroom?

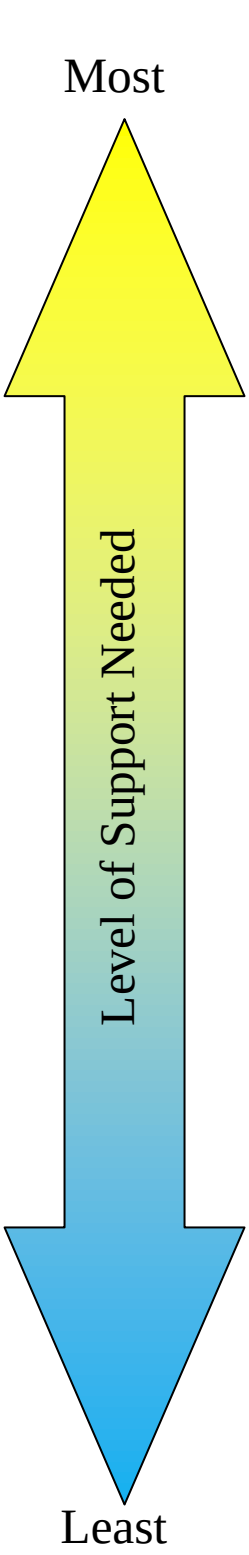
Discipline
- ✓ What is acceptable and unacceptable student behavior?
- ✓ Who will intervene when students exhibit unacceptable behavior?
- ✓ What are the rewards and consequences used in the classroom?

Feedback
- ✓ What procedures can we establish for giving each other feedback?
- ✓ What steps can we take for voicing, acknowledging, and addressing both positive and negative feedback?

Pet Peeves
- ✓ What aspects of teaching and classroom life do we each feel strongly about?
- ✓ How can we identify our pet peeves in order to avoid them?
- ✓ How can we establish compromise so that we both feel that our values are being acknowledged?

Source: Cook, L. & Friend, M. (November 2005) Co-Teaching: Guidelines for Creating Effective Practices. *Focus on Exceptional Children*. 28(3)

The Collaborative Continuum



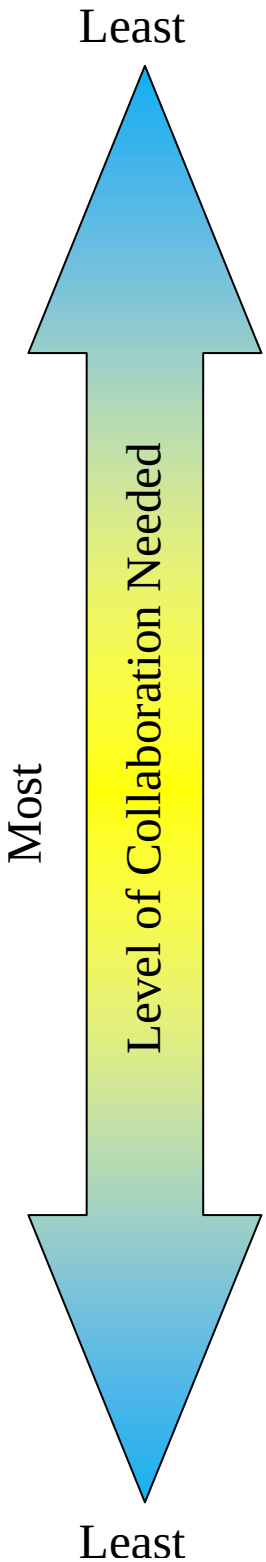
Special Education Self-Contained: If a student is in a class that is only for students with special needs (IEPs), there are still opportunities for collaboration. Special educators can combine their classes with other classes occasionally for activities/units, or students without special needs might come to the special education class for specific activities (referred to as "reverse mainstreaming" or "push in").

Special Education "Pull Out": Sometimes a student is in a general education class but is "pulled out" by a special educator or service provider (e.g., speech/language pathologist) for additional help. This is generally not considered very collaborative and often results in the student missing out on general education content. However, educators can work to be collaborative by communicating about what each of them is doing and determining when it is best for the student to be "pulled out", and if there are other students who would benefit as well (including those without IEPs).

Co-Teaching: If a class is co-taught, then students with and without disabilities are in the same general education class and teachers are working collaboratively to meet all needs. This provides more direct support to students than in-class support or monitoring, but requires students to meet the higher expectations and standards (both academic and behavioral) of the general education class.

In-Class Support: In-class support is when the special service provider (special education, Title I, speech, etc.) comes into the general education classroom to help as needed. This may occur daily, weekly, or monthly. There is generally les collaboration and communication when this occurs, although the more there is, the better for students and teachers.

Monitoring: Indirect, rather than direct support, is offered to students through the collaboration and communication of educators and support personnel. Service providers may only pop into classes occasionally to check up on the student to ensure success and provide the general educators with suggestions, accommodations, and necessary support.



Wendy W. Murawski, *Co-teaching in the Inclusive Classroom: Working Together to Help All of Your Students Succeed*, (Bellevue, WA: Bureau of Education and Research, 2008).

Roles and Responsibilities for Effective Collaboration

One of the most important elements of effective team collaboration is defining the roles and responsibilities of each team member. It must be emphasized that flexibility and fluidity are key components when defining the roles and responsibilities of collaborative team members. The members' roles and responsibilities may be modified throughout the year to form a variety of collaborative relationships. Exactly who does what from one day to the next is determined by the needs of the students and the complementary skills of the educators involved. Over the next few pages, roles of professionals and how they can support classroom instruction are outlined.

Administrator:

- ✓ Includes department chairs, assistant principals, principals, and district staff.
- ✓ Manages the educational program of all students.
- ✓ Participates as a member of collaborative problem-solving teams that provide solutions to barriers inhibiting successful inclusion of students.
- ✓ Secures resources to enable staff to meet the needs of all students.
- ✓ Conducts formal and informal evaluations to provide constructive feedback.
- ✓ Offers instructional support as needed.

General Educator:

- ✓ Highly qualified teacher.
- ✓ Plans collaboratively with special educators and other members of the staff to meet the needs of all learners.
- ✓ Shares responsibilities with special educators and other support personnel for teaching and assessing assigned students.
- ✓ Seeks support of special educators and other support personnel for students experiencing difficulty in learning.
- ✓ Monitors and evaluates class/student performance.
- ✓ Supervises paraeducators, related service providers, and other support staff in providing services to meet student needs.
- ✓ Gives paraeducators and other support staff directions on how to support instruction and facilitate activities during class.
- ✓ Encourages students to be tutors and social supports for one another.

Special Educator:

- ✓ Highly qualified teacher who also provides services for students with special needs (IEPs).
- ✓ Plans collaboratively with general educators and other support personnel to meet the instructional and assessment needs of all learners.
- ✓ Co-teaches with general educators in the general education classes.
- ✓ Communicates regularly with general education teachers and other special educators for updates on student progress.
- ✓ Monitors and evaluates student performance including progress toward IEP goals and objectives.
- ✓ Supervises paraeducators and other support staff in providing services to meet student needs.
- ✓ Gives paraeducators and other support staff directions on how to support instruction and facilitate activities during class.
- ✓ Encourages and trains students to be peer tutors and social supports for one another.

Related Service Provider:

- ✓ Offer behavior intervention and support.
- ✓ Provide curriculum modification and support.
- ✓ Assist with in-class accommodations.
- ✓ Consult one-on-one with staff about best practices for students with special needs.

Teaching Actions During Co-Teaching

Both teachers are actively engaged in teaching, alternating the instructional lead**.**

If one of you is doing this…	The other can be doing this…
Lecturing/Providing direct instruction to the whole class.	• Modeling note taking on the board/overhead; ensuring "brain breaks" to help students process lecture information. • Circulating, providing one-on-one support as needed/proximity control of student behavior. • Modeling metacognitive processes that students should be engaged in. • Observing for signs of confusion in facial expressions/written work. • Asking questions of teacher lecturing to reflect student needs. • Providing clarifications and elaborative explanations and reminding students of strategies that might be helpful in understanding/retaining (Repeat, Rephrase, Redirect).
Taking roll	• Collecting and reviewing last night's homework; introducing a social or study skill.
Passing out papers	• Reviewing directions; modeling first problem on the assignment.
Giving directions orally	• Writing down instructions on board; repeating or clarifying any difficult concept.
Checking for understanding with large heterogeneous group of students	• Checking for understanding with small heterogeneous group of students.
Working with half the class on one piece of an activity	• Working with the other half of the class on note taking/ make-up work, or a different activity.
Facilitating a silent activity	• Circulating, using proximity control for behavior management; checking student work for common errors and working with small groups to further student understanding.
Running last minute copies or errands	• Reviewing homework; providing a study or test-taking strategy.
Re-teaching or pre-teaching with a small group	• Monitoring large group as they work on practice materials.
Facilitating sustained silent reading	• Reading aloud quietly with a small group; previewing upcoming information.
Reading a test aloud to a group of students	• Proctoring a test silently with a group of students.
Creating basic lesson plans for standards, objectives, and content curriculum	• Providing suggestions for modifications, accommodations, and activities for diverse learners.
Facilitating stations or groups	• Also facilitating stations or groups.
Explaining a new concept	• Conducting role play or modeling concept. • Asking clarifying questions.
Considering modification needs	• Considering enrichment opportunities.

Adapted from: Murawski, W.W. (2003). Co-teaching in the Inclusive Classroom: Working Together to Help All Your Students Find Success. Bellevue, WA: Institute for Educational Development.

Paraeducator:

- ✓ Paraeducators consist of both **Instructional Assistants** (IAs) and **Adult Assistants** (AAs).
- ✓ Observe and record student progress.
- ✓ Observe and chart student behavior.
- ✓ Read tests and/or directions.*
- ✓ Assist with written tasks.*
- ✓ Facilitate students' active participation.*
- ✓ Modify or adapt instructional materials.
- ✓ Reteach or reinforce concepts to a small group using alternate materials.*
- ✓ Set up learning centers.
- ✓ Provide cues or prompts to enhance student attention or behavior.*
- ✓ Provide positive reinforcement and support.*
- ✓ Help students develop and monitor organizational skills.*
- ✓ Read textbooks or stories to students.*
- ✓ Monitor classroom assessments.
- ✓ Assist in preparation of materials.*
- ✓ Review lesson plans with the teacher.
- ✓ Provide accommodations to students with IEPs.*
- ✓ Consult with teacher regarding individual students.
- ✓ Monitor or facilitate testing.
- ✓ Maintain confidentiality of all student information.*
- ✓ Celebrate accomplishments.*

Adapted from: Maryland Coalition for Inclusive Education presentation to BCPS paraeducators, June 2002, "20 Things Paraeducators Can Do to Assist Teachers and Students"

*Indicators show responsibilities for which Adult Assistants are qualified, all other suggestions are specific to Instructional Assistants only.

Teacher/Paraeducator Actions During Co-Teaching	
If the teacher is doing this…	**The paraeducator can be doing this…**
Greeting students at the door.	• Taking roll. • Collecting last night's homework. • Passing out papers. • Setting up individualized student stations. • Getting supplies ready. • Directing students to begin.
Lecturing/providing direction instruction to the whole class.	• Modeling note taking on the board or overhead . • Circulating. • Providing support as needed. • Providing proximity control. • Observing for signs of confusion in facial expressions/written work. • Asking questions of teacher lecturing to reflect student needs. • Refocusing students. • Referring students to posted rules to remind them to stay on task. • Collecting data/point sheets on students.
Giving directions orally.	• Writing down instructions on board or overhead.
Checking for understanding with large heterogeneous group of students.	• Checking for understanding with small heterogeneous group of students.
Working with half the class on one piece of an activity.	• Working with the other half of the class on (note taking) make-up work or a different activity that the teacher has planned and provided.
Facilitating a silent activity.	• Circulating, using proximity control, checking student work for common errors, and working with small groups to further student understanding.
Circulating, using proximity control for behavior management, checking student work and working with small groups to further student understanding.	• Facilitating a silent activity.
Providing a study or test-taking strategy.	• Running last-minute copies or errands. • Reviewing homework. • Checking agenda books.
Reteaching or pre-teaching with a small group.	• Monitoring large group as they work on practice materials.
Monitoring large group as they work on practice materials.	• Reteaching a small group.
Facilitating sustained silent reading.	• Reading aloud quietly with a small group • Setting up Kurzweil.
Reading a test aloud to a group of students.	• Monitoring a test silently with a group of students.
Facilitating stations or groups.	• Also facilitating stations or groups.

Adapted from: Murawski, Wendy W. *Collaborative Teaching in Secondary Schools: Making the Co-Teaching Marriage Work*. Corwin, 2009.

The following descriptions of roles and responsibilities for parents and students below are not limited to what is written here, they are only guidelines. Regularly communicating with the general educator in the student's classes is critical for knowing what roles parents and students play in the classroom and schoolwide.

Student:

- ✓ Engages actively in instruction, advocacy, and decision making for self.
- ✓ Works with other students in cooperative learning arrangements.
- ✓ Complies with school and classroom rules and procedures and employs effective work habits.

Parent:

- ✓ Provides support to the instructional team and student.
- ✓ Maintains an open line of communication with the school community.
- ✓ Promotes regular school attendance, compliance with school and classroom rules and procedures, and appropriate work habits for school success.

Creating Time for Collaborative Planning

Time to collaborate during the school day is a critical ingredient for implementing any educational innovation. It is also critical for planning the implementation of special education services and support in general education classes. Teachers and related services staff need to share their expertise, clarify barriers to implementing services, find solutions to behavioral and academic challenges presented by students, and design plans for individuals and groups of students.

Lack of time for adults to collaborate is a persistent barrier to implementing quality education services. Individual team members may be assigned to support the same student or several students. If teachers do not have the same understanding of their roles and expectations, they may not have the same vision for the student's program. Without time for discussion, adults who serve students in the same classroom may not be equal partners, may not be as effective as they could be, and may inadvertently work at cross-purposes. Although finding collaborative planning time may be one of the most difficult problems for schools to solve, it is central to successfully supporting all students and is the means to finding practical solutions (MCIE, 2006).

Finding Collaborative Planning Time

- Identify and preserve a regularly scheduled time, convenient to all team members, to plan, problem-solve, and discuss topics of concern.
- Invite special education teachers to join grade-level planning meetings to collaborate on issues of instruction and curriculum for students with support needs.
- Use faculty meetings on alternate weeks for team meetings.
- Use part or all of some faculty meetings for sharing or for problem solving; have the principal facilitate.
- Schedule meeting time on a schoolwide basis so common prep time can be scheduled for all members of grade-level teams.
- Plan, schedule, and use collaboration days during the school year.
- For one day each week, schedule a common lunch period; ideally this lunch period should be scheduled before or after a common prep period.

Source: Maryland Coalition for Inclusive Education & Maryland State Department of Education (2006). *Collaborative Team Practices.*

Coordinating Schedules

- Have principals and teachers design a collaborative planning schedule.
- Designate and coordinate planning times for grade/department planning schedule.
- Restructure school planning teams (grade level and department) so special education teachers are members.
- Establish common lunch or recess schedules by grades.
- Use parallel block scheduling (Myers, 2008) to create common planning opportunities.
- Have principals arrange master schedule so a given grade level has back-to-back specials twice a week to assist in planning.
- Hire a floating, trained, substitute teacher to rotate among classes and free up 30-45–minute blocks of the classroom teacher's time.
- Advocate annually with central office when the school calendar is planned to have professional time reserved for teaming.
- Use teacher/staff on a rotating basis at early morning, dismissal, and duty-free lunchtime to block out time for grade level teams to meet.
- Utilize professionals in the school who do not have assigned class groups to plan and deliver instructional activities to provide release time.
- Substitute collaborative planning meetings for other duties (lunch duty, hall duty, etc.).

Source: Snell, M.E., Janney, R., Elliott, J., et al (2005). *Collaborative Teaming.* (2nd Ed). Baltimore: P.H. Brookes Publishing.

Co-Teaching

Definition

Co-teaching occurs when two or more licensed professionals jointly deliver purposeful instruction and share accountability for a single heterogeneous group of students in a common physical space.

(Adapted from Friend, 2008)

History of Co-Teaching

According to Conderman, et al (2009), the public school classroom of the early 1900s focused on homogenous groupings of students with the idea that "one size fits all" (p. vi). The teacher presented instruction in one way, to all students, and hoped that each would eventually learn and succeed. Students with disabilities were taught in isolated classrooms and had little interaction with their general education peers. However, as a result of the civil rights movement, the case of Brown vs. Board of Education in 1954 ruled that separate was not equal and helped to pave the way for the full inclusion of students with disabilities into general education classroom (Murawski, 2010).

Other legislations soon followed, including Section 504 of the Vocational Rehabilitation Act of 1973 which prevents discrimination against all individuals with disabilities in federal funded programs, especially public schools (Friend & Bursuck, 2002). Moreover, this legislation allows students who do not qualify to receive services through special educational, to receive other types of assistance to help them succeed in school (Friend & Bursuck, 2002).

Most currently, the 2002 legislation *No Child Left Behind* (NCLB), and the amendments to the Individuals with Disabilities Education Act (IDEA) in 1997 and 2004, have made ensuring the success of every student an increasingly hot topic in education today. The inclusion of students with disabilities into regular classroom settings with the already diverse population of students in each class presents the teacher with the ever-growing challenge of providing appropriate instruction that meets the individual needs of all learners. Also, Murawski (2010) states, the additional requirement that students with disabilities participate in all statewide assessments is forcing educators to make changes in the way in which curriculum and instruction is delivered to students. It is indeed a task too large for any one person, and thus, has resulted in the growing popularity of co-teaching.

Rationale for Co-Teaching

- Provides greater intensity of instruction and opportunities for student engagement.
- Increases understanding and respect for student diversity and the development of a heterogeneously based classroom community.
- Minimizes instructional fragmentation and provides more time on task.
- Fosters a sense of support among professionals.
- Provides opportunities to capitalize on the diverse knowledge and instructional strengths of one another.
- Provides increased instructor-to-learner ratio.

- Increases opportunities for ongoing assessment to monitor student progress and respond to student needs.

Planning for Co-Teaching

Planning for co-teaching requires positive interdependence among co-teaching team members, mutual respect, face-to-face exchange, and trust.

Tips for Co-Planning:

DISH is an acronym used to describe the characteristics of effective co-planning.

- **D**efined Roles –A distribution of leadership among team members. Roles may rotate at each additional meeting.
- **I**ndividual Accountability – there is shared ownership for planning and delivery of instruction with established ground rules.
- **S**ocial Skills – requires your planning team members to utilize the problem-solving process and to be solution oriented.
- **H**ave an Established Agenda –start with the positive aspects of the relationship, complete the necessary tasks, and provide timely responses to questions/requests.

Sources:
Snell, M. and Janney, R. (2000). Collaborative Teaming, Baltimore, Brookes.
Villa, R. (2002). Collaborative Planning: The Co-Teaching Model, National Professional Resources, Inc.,videocassette.

Recommendations for Effective Co-Planning

What/How/Who Approach to Co-Planning

What are we teaching?	General Educator Leads	• What is the lesson's objective? • What are the essential questions and key vocabulary? • What are the essential skills necessary to meet the objective?	5 minutes
How will we structure the lesson to maximize student learning?	A Dialogue Between Special Educator and General Educator	• Which instructional strategies will we use during instruction? • What materials will we need for this lesson? • Which co-teaching format will best meet the needs of the learners in this lesson? • How will we assess this objective (formally and informally)?	7 minutes
Who are our students and how will the lesson be differentiated to meet the needs of all learners?	Special Educator Leads	• Who are the students and what are their specific strengths and needs? • How might we differentiate to meet the needs of all learners? • What types of behavioral or academic modifications might we need to make?	5 minutes

Adapted from (Murawski, 2010)

Co-Teaching Models

The co-teaching models described in this section serve as examples of what co-teaching might look like in the inclusive classroom. All approaches may be modified in a variety of ways to address subject matter, students' maturity levels, and teachers' skill and creativity. Additional resources related to the implementation of the co-teaching models represented in The Guide for Inclusive Education are provided in the bibliography.

- Team Teaching
- Parallel Teaching
- Alternative Teaching
- Station Teaching
- One Teach – One Assist

Please visit the link below for a video highlighting each of these co-teaching models.

***Power of 2: Part 1* – "Chapter 6: Classroom Practices"**

http://safari-home.bcps.org/SAFARI/montage/play.php?keyindex=14972

Implementing the Co-Teaching Models

What is it?	When can it be used?	How can it be used?
Team Teaching –Both teachers deliver the same instruction at the same time. Instruction is delivered in a large group setting. Both teachers speak freely; instruction is a "conversation."	• During a lesson in which instructional conversation is appropriate. • In co-teaching situations where the teachers have considerable experience and a high sense of comfort with content and each other.	• In science, one teacher explains the experiment while the other demonstrates using necessary materials. • In social studies, teachers debate U.S. foreign policy issues. • In English, teachers act out a scene from a piece of literature. • As the steps in a math process are taught, one walks through the steps while the other does a "Think Aloud" activity. • One teacher talks while the other models note taking on the board or overhead.
Alternative Teaching– One teacher works with a small group while the other instructs the rest of the class. The small group can be used for pre-teaching, re-teaching, enrichment, or assessment. Groups should be heterogeneous, and the teacher who works with the small group should alternate.	• In situations where students' mastery of concepts taught (or about to be taught) varies tremendously. • When enrichment is desired.	• The large group completes a practice exercise related to the concepts just taught; the small group receives additional direct instruction. • The large group checks homework; the small group is pre-taught vocabulary related to the day's lesson.
Parallel Teaching–Co-teachers split the class and both teach the information simultaneously. They can teach in the following ways: • Same content, same way. • Same content, different way. • Different content.	• When a lower adult-student ratio is needed to improve instructional efficiency. • To foster student participation is discussions. • For activities such as reteaching, drill, practice, and test review.	• If the group is divided in half, the use of science materials can be more closely monitored. • If students are split into two groups, more students would have a chance to share their alternative ending to a story. • If each teacher takes a group of students and presents environmental issues – one from the point of view of business and industry and one from the point of view of environmentalists, the class can later have a spirited discussion on the topic.

What is it?	When can it be used?	How can it be used?
Station Teaching– Content, materials and instruction are divided into three or more stations. (Students may have to work independently.) Students rotate around the room, visiting each station for a specific period of time.	• When several topics comprise instruction. • In lessons, in which part of planned instruction is review.	• During language arts instruction, one station will address comprehension of a recently-read piece of literature, one station will focus on editing of a writing assignment, and one station will consist of an activity related to a skill being taught. • In social studies, stations can examine the geography, economy, and culture of a region or country. • In math, students can be taught a new process at one station while reviewing applications of already– presented concepts at other stations.
One Teach, One Assist–One teacher takes primary responsibility for instruction while the other teacher circulates around the room. Co-teachers should alternate who teaches and who assists.	• When the lesson lends itself to delivery by only one teacher. • When one teacher has particular expertise for the lesson. • In new co-teaching situations. • To check student progress.	• This approach can allow one teacher the opportunity to become comfortable with the content, co-teaching partner, and flow of the class. • While one teacher takes primary responsibility for instruction, the other teacher can observe student application of a new skill. • While one teacher delivers the lesson content, the other may observe specific work habits and behavior.

Team Teaching

Both teachers provide the instruction and share the responsibility for planning. Teachers work as a team to present the material to the whole class at the same time. Teachers may take turns teaching parts of the lesson or one teacher may teach while the other models, demonstrates, or writes on the board.

Strengths:

- Rewarding and energizing for students and teachers.
- Students benefit from the talents of both teachers.
- Interactive teaching (teachers can role-play, model appropriate behaviors, model discussions, conduct a debate, facilitate games, etc.).
- Provides greater opportunities for student engagement.
- Behavior management is easier when two teachers are "watching".

Drawbacks:

- Requires a considerable amount of co-planning.
- Requires a high level of mutual trust and respect between the teachers.
- Time is a factor as lessons tend to take longer when two teachers teach.

Source:
Murawski, Wendy W. *Collaborative Teaching in Elementary Schools: Making the Co-Teaching Marriage Work*. Corwin, 2010.

Looks Like…

Teacher A

Teacher B

Parallel Teaching

The teachers plan instruction jointly. Each teacher instructs one half of the heterogeneously grouped class. Parallel Teaching may be used in three ways:

1.) Both teachers teach the same content in the same way.

2.) Both teachers teach the same content in different ways.

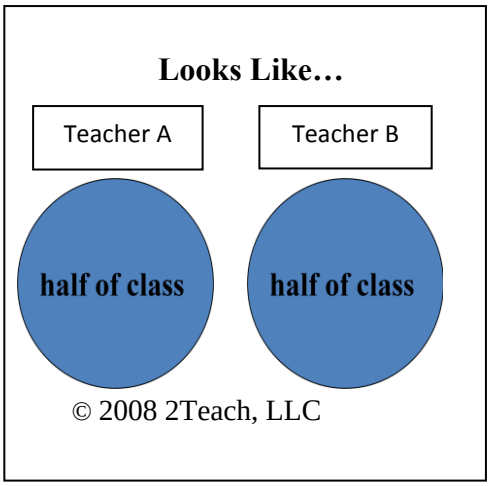
3.) Both teachers teach different content.

Strengths:

- Both teachers are equally and actively engaged in instruction.
- Lower student/teacher ratio.
- Teachers may feel encouraged to vary their instructional strategies and activities with smaller groups.
- Allows for close supervision and monitoring of students' behavior and achievement.
- Each teacher may choose to plan his/her own group's lesson which reduces the time spent co-planning.
- Allows for flexible grouping of students.

Drawbacks:

- Some teachers may not be comfortable with the content they are required to teach.
- Limited space and increased noise level may cause conflicts.
- Timing is essential so that both groups finish at the same time to reduce chaos.
- Teachers may tend to always group special education students together.



Source:
Murawski, Wendy W. *Collaborative Teaching in Elementary Schools: Making the Co-Teaching Marriage Work*. Corwin, 2010.

To view a model of Parallel Teaching, please visit the link below from www.teachertube.com

"Bevis Elementary Parallel Co-Teaching"

http://www1.teachertube.com/viewVideo.php?title=Bevis_Elementary_Parallel__CoTeaching_&video_id=59966

Alternative Teaching

One teacher works with a small group while the other instructs the larger group. The small group can be used for preteaching, reteaching, enrichment, or assessment. The students in the small group will vary, depending upon the needs that the small group will provide.

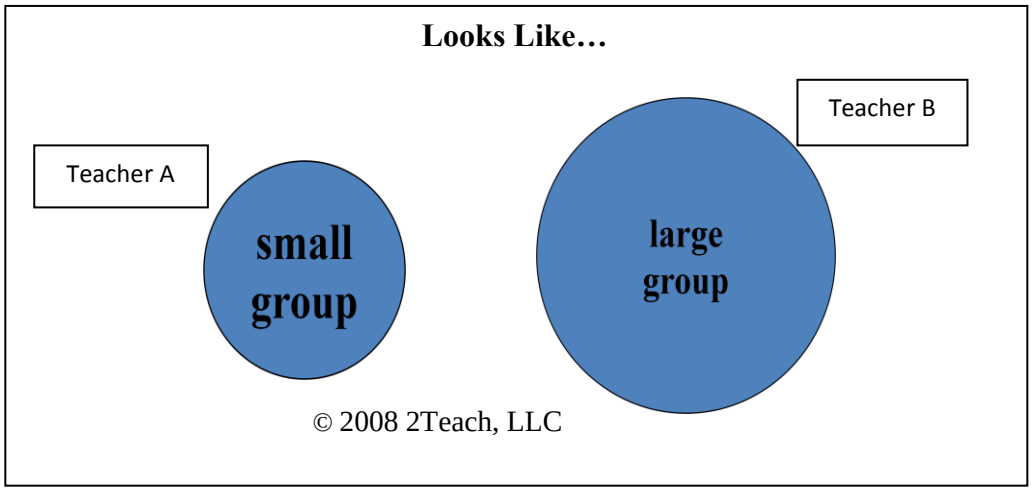
Strengths:

- Enables a smaller student/teacher ratio.
- Teachers can identify and teach a specific skill to specific students.
- Promotes differentiation of content, process, and product.

Drawbacks:

- Potential to stigmatize students with disabilities if they are always instructed in the smaller group.
- Noise factor.
- Requires careful time management.

Source:
Murawski, Wendy W. *Collaborative Teaching in Elementary Schools: Making the Co-Teaching Marriage Work.* Corwin, 2010.



Station Teaching

Instructional content, materials, and activities are divided into segments at separate locations in the classroom—usually three or more. These segments are commonly referred to as "stations." The stations may be completed by students independently or manned by the teachers. Students then rotate through each station within the allotted time. Teachers should divide the responsibility for the planning and instructing of stations.

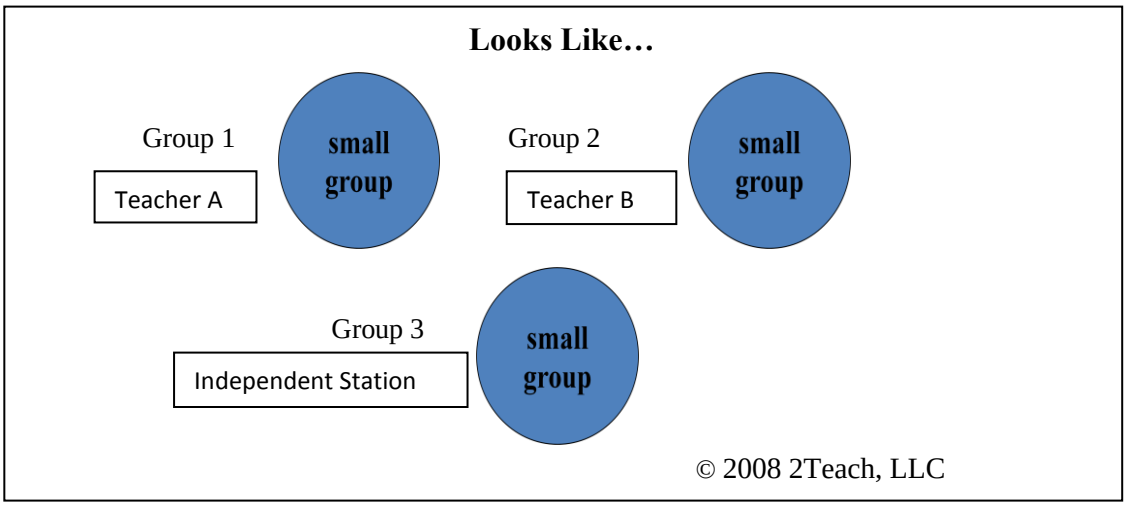
Strengths:

- Stations help students focus on one specific topic for a shorter amount of time.
- Materials can be easily reused by each group that visits the station.
- Lower student/teacher ratio
- Stations give the opportunity to present material in different ways to meet a variety of learning styles.
- Teachers can choose to plan and present the content for which they are most comfortable.

Drawbacks:

- Noise and activity level.
- Students may have difficulty generalizing and making connections between the learning from each station.
- Requires a great deal of advanced planning and gathering of materials.
- Teachers need to find time for co-planning.
- Pacing and timing of groups as they move between stations.

Source:
Murawski, Wendy W. *Collaborative Teaching in Elementary Schools: Making the Co-Teaching Marriage Work*. Corwin, 2010.



To view a model of Station Teaching, please visit the link below from www.teachertube.com

"Station Teaching 7th Grade Writing"

http://www1.teachertube.com/viewVideo.php?video_id=144228

One Teach - One Assist

Two teachers are present, but one functions as the lead teacher as the other circulates to monitor student performance. The lead teacher takes responsibility for planning and implementing instruction. The second teacher provides adaptations and modifications to students, monitors classroom behavior and management, and offers any other support that may be needed by the lead teacher. **Teachers should change roles often.**

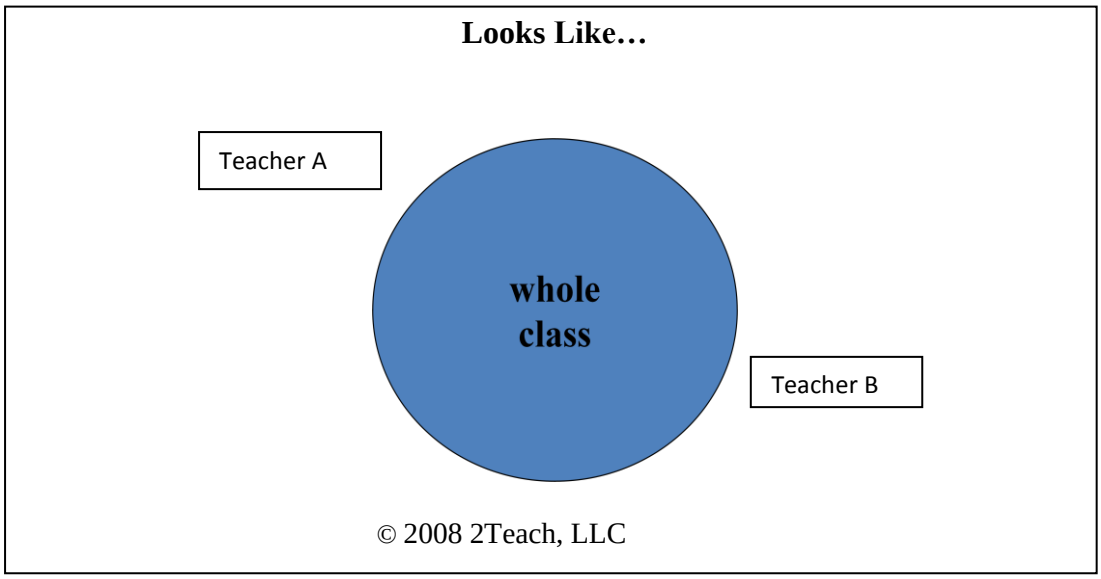
Strengths:

- Most similar to traditional teaching methods.
- Requires little time for co-planning.
- Supporting teacher can monitor students who are struggling with the lesson and report this information to the lead teacher.

Drawbacks:

- Unequal teaching and planning responsibility, unless teachers alternate the lead teacher role.
- Traditional style of teaching may not be effective for all students.
- Too often, one teacher becomes merely a teacher's assistant.

Source:
Murawski, Wendy W. *Collaborative Teaching in Elementary Schools: Making the Co-Teaching Marriage Work*. Corwin, 2010.



Differentiated Instruction and Universal Design for Learning (UDL)

Research on Differentiation

"**The best teachers** have always recognized that every student is unique, and to a degree, deserves and requires special attention and adaptation of learning experience to fit these unique needs, interests, and abilities" (George, 2005, p. 189, bold-faced type added).

Differentiation of Instruction (DI) has been shown to improve test scores on both classroom and statewide assessments. For example, Mastropieri and Scruggs, et al., (2006) assert that in peer tutoring, "combined with differentiated science activities, students appear to learn more content than when taught more traditionally, without peer-mediated learning activities" (pp. 135-136).

Broderick, Mehta-Parekh, and Reid (2005) note that "Teachers who use DI expect students to bring a variety of experiences, abilities, interests, and styles to their learning; they acknowledge that these affect students' performance in the classroom (and take diversity into account) when planning and delivering rigorous and relevant, yet flexible and responsive, instruction " (p. 196).

The authors also write, "When teachers effectively differentiate instruction—constantly assessing students' understandings, teaching responsively, and enabling students to demonstrate competence in varied, meaningful ways—disabled (and other) students can participate successfully as full members of heterogeneous inclusive classrooms" (Broderick, et al., 2005, p. 200).

Sources:

Broderick, Alicia, Mehta-Parekh, Reid, D. Kim (Summer, 2005). Differentiating instruction for disabled students in inclusive classrooms. *Theory into Practice* 44 (3): p. 196. www.jstor.org/stable/346998. Accessed 7/18/11.

George, Paul S. (Summer 2005). Differentiated instruction. *Theory into Practice* 44 (3): pp. 185-193. Retrieved from: http://www.jstor.org/stable/349. Mastropieri,

M., Scruggs, T., Norland, J., Berkeley, S., McDuffie, K., Tomquist, E., and Connors, N. (2006). Differentiated curriculum enhancement in inclusive middle school science: Effects on classroom and high-stakes tests. *The journal of special education*, 40 (3): 130-137. Retrieved from: http://web.ebscohost.com.proxy-tu.researchport.umd.edu/ehost/

Using Differentiated Instruction to Meet the Needs of *All* Learners

Differentiation of instruction provides opportunities to meet the needs of a diverse school community. The talents of all learners find challenge while creating a balance between **equity** and **excellence**.

Equity **Excellence**

Inclusive and Flexible

"*Differentiating instruction, a comprehensive approach to teaching, enables the successful inclusion of all students, including the disabled, in general education classrooms"* (Broderick, Mehta-Parekh and Reid, 2005).

"Having access to a variety of approaches to teaching and learning gives teachers agility in reaching out to students. It will nearly always be the case that some students prefer certain instructional approaches over others. The teacher who regularly employs a range of strategies is more likely to connect what needs to be learned with the full range of students" present in a classroom.

"In addition, through careful observation of students as they work in a range of instructional settings, a teacher can continue to develop insights about approaches that are most successful for particular learners, as well as for the class as a whole" (Tomlinson and McTighe, 2006, p. 53).

Sources:

Broderick, Alicia, Mehta-Parekh, Reid, D. Kim (Summer, 2005). Differentiating instruction for disabled students in inclusive classrooms. *Theory into Practice* 44 (3): p. 196. www.jstor.org/stable/346998. Accessed 7/18/11.

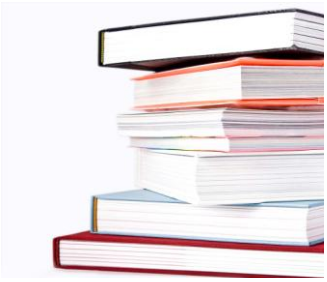
Tomlinson, Carol Ann and McTighe (2006). *Integrating Differentiated Instruction + Understanding by Design. Alexandria, VA: Association for Supervision and Curriculum Development*.
Image from davidshoebridge.org

Differentiation and Diverse Student Populations

- "The primary goal of quality curriculum design is to develop and deepen student understanding."
- Students learn and "grow at different rates and require varied support systems" in the attainment of their intellectual potential.
- "Evidence of student understanding is revealed when students apply (transfer) knowledge in authentic contexts."
- Differentiated instruction takes into account a student's "current point of proficiency, interests, and learning preferences" (Tomlinson and McTigh, 2006, p. 4).
- Students differ in their readiness to learn, based on age, language, "life experiences, aptitudes, attitudes, interests" and other factors.
- Teachers need to "build on all students' strengths, talents, and prior knowledge" (Broderick et al., 2006, p. 196).

Professional Library

Click on link for additional resources from the BCPS professional library http://galesites.com/ascd/baltimore/.



Sources:
Broderick, Alicia, Mehta-Parekh, Reid, D. Kim (Summer, 2005). Differentiating instruction for disabled students in inclusive classrooms. *Theory into Practice* 44 (3): p. 196. Retrieved from: www.jstor.org/stable/346998. Accessed 7/18/11

Carol Ann and McTighe (2006). Integrating Differentiated Instruction + Understanding by Design. Alexandria, VA: Association for Supervision and Curriculum Development.
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The Hallmarks of a Differentiated Classroom – Guidelines for Getting Started

Use assessment to guide instruction.

Pre-assess students to find out what they know. Use the data from the pre-assessment to plan units and lessons. Continually assess the students throughout each unit, using different assessment forms for students to demonstrate what they know.

Be clear about learning goals.

Specify to students what they need to know, understand, and gain from each lesson or unit. This will help improve learning gaps and continue learning.

Group students effectively.

When forming small groups within the classroom, students can be grouped homogenously for readiness, based on similar learning needs. This will allow teachers to reteach previous lessons and monitor progress. The goal of flexible grouping is to balance the need to teach students where they are and provide them with opportunities to interact in meaningful and productive ways with a wide range of peers.

Use time, space, and materials flexibly.

Arrange the room so students are able to work in a variety of ways and match materials to the learner.

Involve students in understanding the nature of the classroom.

Allow your students to be involved in the responsibilities of the classroom. The goal of the classroom is to provide supports for students so they are able to grow academically.

Seek specialists' active partnership in the classroom.

Collaborating with building specialists will benefit individual students.

Differentiation is proactive rather than reactive.

Plan for student differences; do not plan for all students. Make sure lesson plans are tiered to fit all students' needs in the classroom.

Adapted from *Differentiating in Practice A Resource Guide for Differentiating Curriculum*. Carol Ann Tomlinson and Caroline Cunningham Eidson Association for Supervision and Curriculum Development, Copyright 2003.

Planning for Differentiated Instruction—Content, Process, Product

Content	Process	Product
"what teachers teach (or, what we want students to learn) and how to gain access to that body of knowledge."	how students "make sense of, or come to understand, the information, ideas, and skills" from instruction.	"assessment or demonstrations of what students have come to know, understand, and be able to do as the result of an extended sequence of learning."

Source: Tomlinson, Carol Ann (2003). *Fulfilling the Promise of the Differentiated Classroom*. Alexandria, VA: Association for Supervision and Curriculum Development. Photographs from Yahoo images

Differentiating Content (What a student should **know**, **understand**, and **apply**)

Teachers must differentiate content to teach "essential and enduring" knowledge to students with diverse backgrounds and ability levels.

- Use high-level instruction, based on "understanding the 'big ideas' and core processes."
- Apply scaffolding methods, such as KWL or Concept Mapping (*prereading*).
- Find content materials that include visual media and the Internet.
- Maintain essential concepts, materials, and skills necessary for all learners in unit and daily instructional planning.
- Present information using whole-to-part or part-to-whole approaches.
- Reteach only those students needing additional demonstration.
- Use visuals or graphic organizers.
- Have students use manipulatives or role-playing as a way of understanding a text or oral explanation
- Use recorded passages of text or use small-group instruction to enable students with encoding difficulties.
- For ESL students provide text in native language while the student is learning English.

Sources: Tomlinson, Carol Ann and McTighe (2006). *Integrating Differentiated Instruction + Understanding by Design.* Alexandria, VA: Association for Supervision and Curriculum Development.
Spencer-Northey, Sharon (2005). *Handbook on Differentiated Instruction for Middle and High School*. Larchmont, NY: Eye on Education. (The above information comes from chapter 2, pp. 39-74). In addition, see Tomlinson, Carol Ann (2001) How to differentiate instruction in mixed-ability classrooms. Alexandria, VA: Association for Supervision and Curriculum Development.

Differentiating Process (Helping students **make sense** and take **ownership** of the content)

- Provide varied options for exploration and evaluation of content.
- Provide authentic learning opportunities.
- Discover student interests when planning learning processes.
- Appeal to multiple intelligences, differentiating by learning profile.
- Plan for tiered lessons, appealing to varied levels of ability and interest.
- Adjust the level of the task presentation.

Sources: Tomlinson, Carol Ann and McTighe (2006). *Integrating Differentiated Instruction + Understanding by Design.* Alexandria, VA: Association for Supervision and Curriculum Development. Tomlinson, Carol Ann (2003). *Fulfilling the Promise of the Differentiated Classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.

Differentiating Product (Helping student **demonstrate** and **extend** what has been learned)

- Product assignments should cause students to rethink, apply, and expand on all the key concepts, principles, and skills of the unit (or segment of learning) that the products are designed to reflect.
- Products call for more thought and ingenuity when they are based on issues, concepts, or problems rather than on topics.
- Product assignments should necessitate and support creativity, including opportunities for written, visual, and oral presentations of knowledge.
- Products demonstrate understanding in "highly flexible" ways.
- Authentic products include elements of research, scientific method, and interpretation of findings often reflecting processes applied by professionals in the particular field to complete the product.
- Keep track of student progress through timelines, check-in dates, logs, and journals, in an effort to maximize proficiency during a given block of time.
- Use rubrics setting a clear standard of high expectations, continually modeling and talking about what constitutes excellence.
- Balance clear directions that support success with freedom of choice that supports individuality of interest and knowledge.
- Acknowledge varied readiness levels by developing "variation on a theme" differentiated versions of a product that are likely to challenge a full range of readiness.
- Use formative and summative evaluations as vehicles to promote growth and success. Communicate with parents regarding timelines, rationale for the product, and how parents should (and shouldn't) help.

Content Strategies: Offer varied approaches to "input" in order to meet students' needs.

Concept-Based Teaching – an emphasis on key concepts and principles to be acquired.
Curriculum Compacting – a three-stage process including:

- Initial assessment prior to study
- Analysis of results for areas of skill mastery or need
- Development of investigative learning activities to advance areas of need

Varied Text, Leveled Readers and Resources – the materials provided meet varying readiness, interest levels, and learning styles.
Learning Contracts – an agreement among all parties regarding the content and skills to be acquired.
Mini-lesson – Use of Small-Group Instruction – the reteaching of a targeted content based on students' readiness, interests, or learning profile.
Audio/Video Recorders and Assistive Technology – the use of prerecorded text, video presentations, and/or technology. (Reading pens, PixWriter, IntelliTalk II E-reader, Kurzweil, audacity, MP3 Players)
Notetaking Organizers – the use of outlining strategies, graphic organizers emphasizing key ideas, and visual organizers such as checklists to provide a coherent means for attending to task
Manipulatives – the hands-on-support which allows the student to operate on a more concrete level of understanding
Highlighted Print Materials – student can expend energy focusing on the essential portions of the content rather than becoming discouraged by what seems to be an insurmountable amount of print.

Process Strategies: Present opportunities for learners to process content or ideas in a way that is meaningful.

Problem-Based Learning – presents students with a complex or unclear problems. Students should define the problem, seek additional information, make decisions about the solution, assess the solution's effectiveness, and communicate the process to others.
Independent Study – used to develop talent and interest in the content material with tailor-made activities that are designed to meet students at their current readiness level for independence.
Stations/Learning Centers – allows students to work with different tasks and materials designed to teach, reinforce, or extend a particular skill using an exploratory approach to learning.
Tiered Lessons – provides diverse routes of access to content using varying degrees of difficulty in order to ensure that all students come away with pivotal skills and are appropriately challenged.
The following **Process Strategies** are highlighted in Baltimore County Public Schools' curriculum guides:

Learning Logs and Journals	**Role-Play**	**Cognitive/Semantic Webbing**
Model Making	**Jigsaw**	**Cubing**
Literature Circles	**Think-Pair-Share**	**Labs**

Product Strategies: cause students to think about, apply, and expand on key understandings and skills.

- Design a Web page
- Develop a solution to a community problem
- Create a public service announcement
- Write a book
- Generate and circulate a petition
- Create a diorama
- Design a game
- Build a model
- Conduct an interview
- Design and conduct an experiment
- Write a letter to the editor, main character, or significant person
- Create a family tree

- Design a cartoon or storyboard
- Formulate and defend a theory
- Train someone else
- Make a learning center
- Present a mock trial
- Write a series of songs
- Create a subject dictionary
- Choreograph a dance
- Present a news report
- Develop a photo/video journal
- Design and make costumes
- Design a cereal box

- Develop a questionnaire
- Write a biography
- Conduct an ethnography
- Develop an advertisement
- Compile a brochure
- Design and make a quilt
- Hold a press conference
- Collect and analyze
- Develop a collection
- Create a musical instrument
- Analyze data and develop a graph or chart
- Write a critique or review

Sources: *Fulfilling the Promise of the Differentiated Classroom: Strategies and Tools for Responsive Teaching* Carol Ann Tomlinson Association for Supervision and Curriculum Development. Copyright 2003.

Adapting and Modifying Curriculum Documents

A **modification** alters content knowledge as well as assessment administration practices. **Modifications** include changes in instructional level, content, and performance criteria.

Examples of Modifications:

- Use of a word bank for vocabulary assignments.
- Use of a cloze passage for written response.
- An outline in place of an essay.
- Picture symbols on classwork and assessments.
- Spelling support from a spell-check program.
- Use of a video on a topic instead of reading.
- Simplified questioning.
- Use of small group instruction.
- Chunking of instruction.
- Reducing the amount of questions.
- Use of a timer to monitor students.
- Use of a leveled reader.

Remember, modifying is simplifying the core concepts and skills; NOT watering down content material.

Teachers should consult student IEP when making modifications, and must be approved by IEP team.

Learning Environment Differentiation

All students require a stimulating learning environment that recognizes, honors, and values the diversity of learners and engages all students. The environment fosters a sense of community and stimulates learning using a variety of resources.

Teacher as Facilitator of Learning – Provides for student-centered learning opportunities, including strategies for differentiated instruction, while incorporating higher level questioning strategy.

When planning an environment for differentiated instruction, a teacher should consider:

- **Physical Space –** Room arrangement (desks arranged in semicircles, clusters, or rows split in the middle and facing each other), preferential seating, lighting, noise reduction, learning centers, interest centers, technology centers, and informal areas

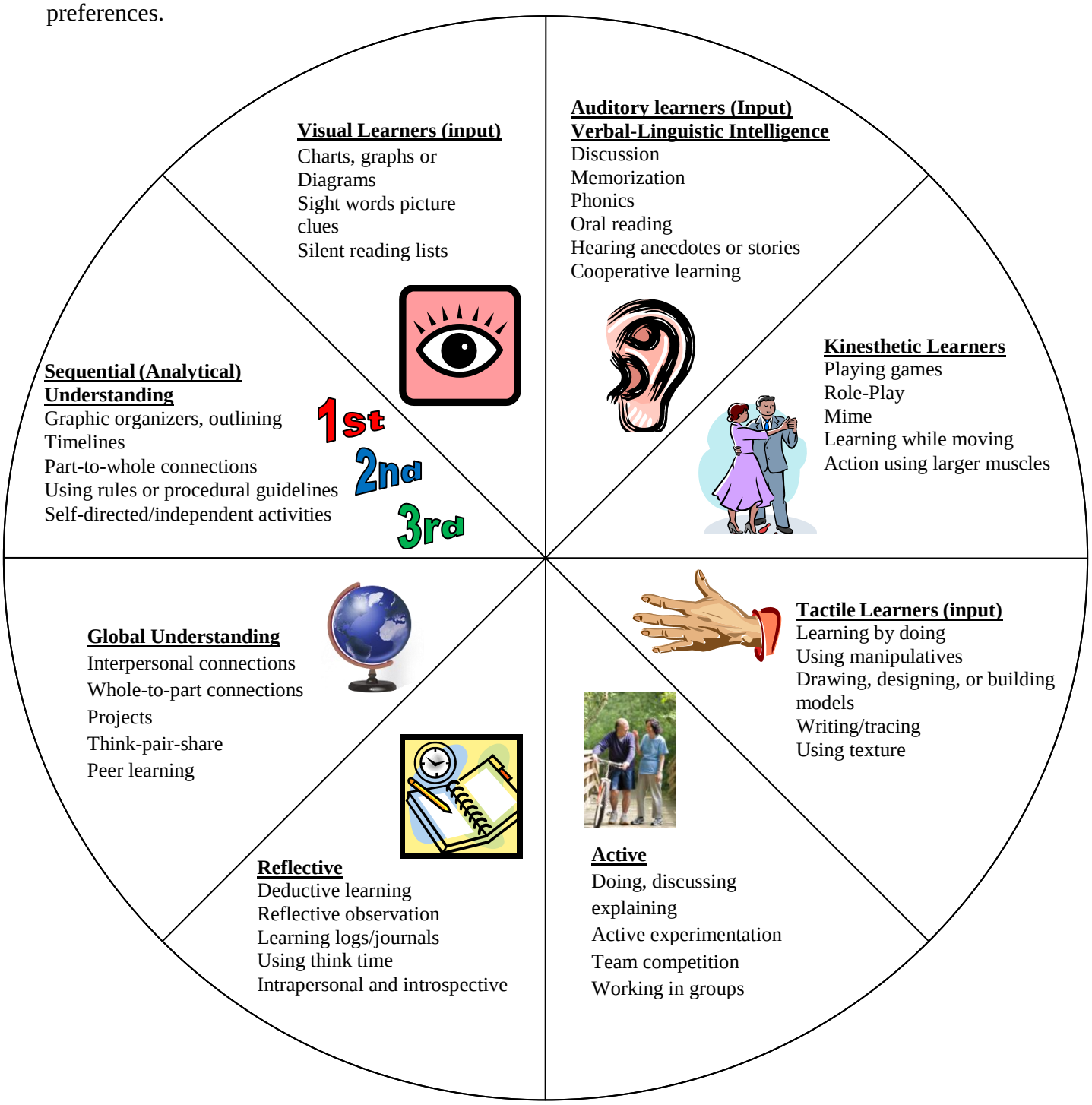
- **Movement –** Structure classroom activities that allow purposeful movement and offer flexible work areas for individuals

- **Flexible Grouping Strategies –** Student grouping based on readiness, interests, and learning styles. May include whole-class, small-group, individual, and teacher-student conferences. Provides for co-teaching opportunities.

- **Variety of Resources –** Print (texts, adaptive texts, ancillaries), school (teachers, support staff, peers), community (speakers, private and public partnerships), technology, low and high tech materials (computers, calculators, assistive technology).

Learning Styles and Preferences

The terms learning styles and learning preferences **are frequently used interchangeably**. Learning preferences refer to the conditions in which students prefer to work and learn, such as the classroom situation, grouping, and whether the lesson is more or less teacher driven. Preferences also signify how students receive, perceive, process, understand, and internalize new knowledge. The following charts feature characteristics of various learning styles and preferences.



Learning Preferences divide into two categories:

- **Field Dependent—**tend towards the concrete, with more teacher and group interaction
- **Field Independent—**tend towards abstract

Learning Preferences

The following charts identify means for how teachers view themselves as learners in order to accommodate the needs of students.

A Field Dependent (Concrete) Learner:

- Experiences in a global fashion, adheres to structures.
- Learns material with social content best.
- Attends best to material relevant to own experience.
- Requires externally defined goals and reinforcements.
- Needs organization provided.
- More affected by criticism.
- Uses observational approach for concept attainment (learns best by examples).
- Likes group projects, sharing, and discussions.
- Likes personal examples, anecdotes, stories.
- Likes praise and assurance.
- Prefers frequent interaction with teacher.

A Field Dependent Teacher:

- Prefers teaching situations that allow interaction and discussion with students.
- Uses questions to check on student learning following instruction.
- Uses student-centered activities.
- Viewed by students as teaching facts.
- Provides feedback (especially positive feedback).
- Strong in establishing a warm and personal learning environment.

A Field Independent (abstract) Learner:

- May tend to perceive analytically.
- Makes specific concept distinctions, little overlap.
- Impersonal orientation.
- May need explicit training in social skills.
- Interested in new concepts for their own sake.
- Has self-defined goals and reinforcement.
- Can self-structure situations.
- Less affected by criticism.
- Uses hypothesis-testing approach to attain concepts.
- Prefers clear grading criteria with specific feedback.
- Requires less interaction with teacher.

A Field Independent Teacher:

- Prefers engaging students by establishing routines in order to work through
- ideas.
- Uses questions to introduce topics and probe student answers.
- Uses teacher-organized learning situations.
- Viewed by students as encouraging to apply principles.
- Gives corrective feedback using error analysis.
- Strong in organizing and guiding student learning.

Learning Styles and Preferences

The following chart outlines the different learning styles and how to best teach those students. Learning styles are how a student receives, processes, and understands new information. Remember not all students learn the same, it is important to take in the different learning styles when planning daily instruction.

Modality	Descriptors	Learn Best Through the Use of ...
Visual Learners (input)	• Learn by observation. • Can recall what they have seen. • Can follow written or drawn instructions. • Like to read. • Use written notes. • Benefit by visualizing, watching TV/video/films.	• Charts, graphs, diagrams, and flow charts. • Sight words. • Flashcards. • Visual similarities and differences. • Pictures and graphics. • Maps. • Silent reading. • Written instructions. • Computer-assisted learning.
Auditory Learners (input) **Verbal-Linguistic Intelligence**	• Prefer listening and taking notes. • Listen for patterns. • Consult peers to ascertain that they have the correct details. • Can recall what they have heard. • Can follow oral directions. • Repeat words aloud for memorization. • Use oral language effectively.	• Discussion, dialog, debate. • Memorization. • Phonics. • Oral reading. • Hearing anecdotes or stories. • Listening to tapes or CDs. • Cooperative learning groups.
Kinesthetic Learners (input)	• Are often physically adept. • Learn through experience and physical activity. • Benefit from demonstration. • Learn from teaching others what they know.	• Playing games. • Role-playing. • Read body language/gestures. • Mime. • Drama. • Learn or memorize while moving (pacing, stationary bike, finger or whole body games).

Tactile Learners (input)	• Learn by touching and manipulating objects. • Often learn inductively rather than deductively. • Tend toward psychomotor over abstract thinking. • Prefer personal connections to topics. • Follow directions they have written themselves / that they have rehearsed. • Benefit from demonstrations.	• Learning by doing. • "Hands-on." • Creating maps. • Building models • Art projects. • Using manipulatives. • Drawing, designing things. • Writing / tracing.
Active	• Can be impulsive. • Risk-takers. • Do not prefer lectures. • Prefer group work. • Tend to be interpersonal. • Not inclined to too much note taking.	• Prefer "doing, discussing, explaining" vs. listening and watching. • Prefer active experimentation. • Like acting and role playing. • Like team competition.
Reflective	• Prefer to think about concepts quietly before any action. • Learn by thinking. • Like writing. • Tend to be intrapersonal and introspective.	• Tend toward deductive learning. • Prefer reflective observation. • Intrapersonal skills valued. • Journals. • Learning logs.
Global Understanding	• Make decisions based on intuition. • Spontaneous and creative; "idea" person. • Often a risk-taker. • Tend to reach conclusions quickly. • Intake information in large chunks rather than details. • Nonlinear thinkers. • "See the forest before they see the trees."	• Interpersonal connection important to them. • Stories and anecdotes. • Seeing the "whole" rather than in parts. • Highly interesting project and materials. • Functional games and activities. • Think-pair-share; Praise-question-polish. • Teacher feedback; person-to-person communication.

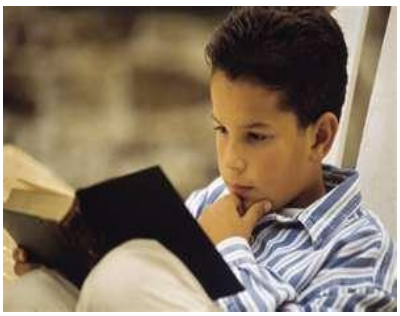
Analytical Understanding	• Sequential, linear learners. • Prefer information in small chunks, steps. • Can follow the rules for mathematic equations. • Prefer a logical progression. • "See the trees before they see the forest."	• Intrapersonal skills valued. • Journals. • Learning logs. • Sequentially organized material, timelines, diagrams. • Moving from "part" to the "whole." • Puzzles, logic games.

Tips for Working with the High Achiever

High achievers are those who are motivated to do well in school. They frequently have learning needs that differ from other students, just as developmentally delayed students have different learning needs.

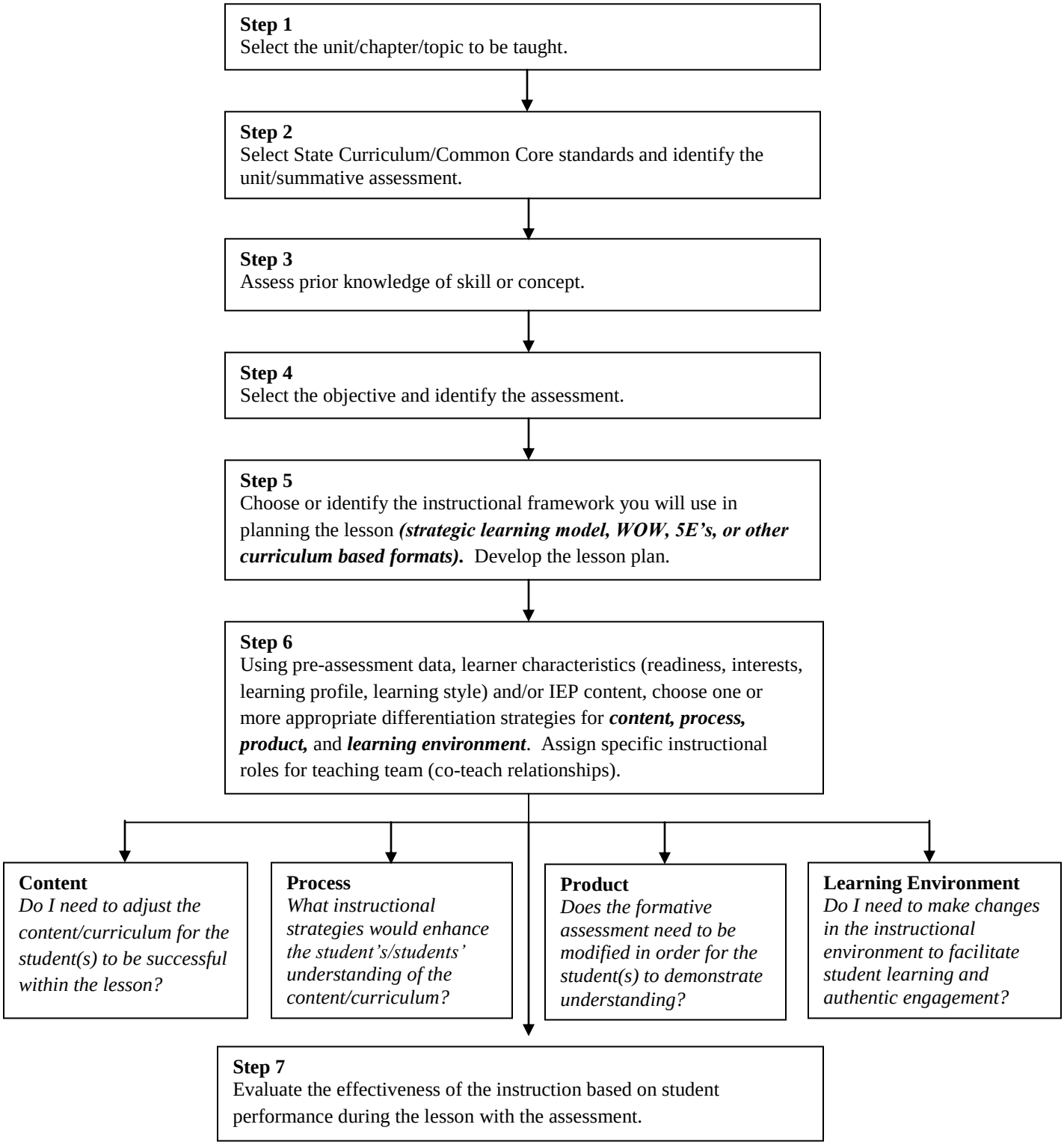
How can teachers meet the needs of high achieving students?

- Assess what they have already learned before teaching them.
- Engage the students in the academic planning.
- Reduce the amount of drill and repetition to a bare minimum.
- Utilize curriculum compacting and/or learning contracts.
- Engage students in high-level independent study projects, preferably involving real problems in the community.
- Involve the students in community service projects.
- Do not have the high achieving students teach the slower students. They may learn in a different manner and may be poor teachers. The students may be held back in their own learning when they are used as teachers' helpers.
- Set high standards for students, using rigorous coursework.



Flow Chart for Differentiating a Lesson

The following flow chart is an effective tool for planning instruction in diverse classrooms. This planning tool provides a framework for including all students as engaged participants in the learning environment.



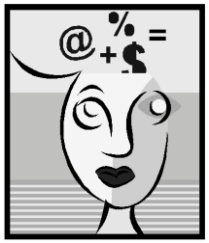
General Accommodations/Assistive Technology

General Accommodations and Assistive Technology tools provide a means of supporting students in the general education setting by facilitating student access to the content.

Skill Area	Method Accommodations	Material Accommodations Low-Tech Tools	Assistive Technology High-Tech Tools
Reading 	• Extra time for completion • Shortened assignments and simplified text • Chapter outlines • Highlight key concepts • Story frames • Before, during, & after strategies • Echo reading • Mapping • Visual, Auditory, Kinesthetic, Tactile (VAKT) • Graphic organizers • Structured study guides • KWL chart • Peer support • RTI • Reading Intensive Programs (Wilson and SIPPS)	• Magnifying bars • Page magnifiers • Colored acetate sheets • Colored stickers for visual cues • Word window • Sentence Cards • Word cards • Tactile letters and words • Colored paper clips to mark pages • Post-it tape flags • Highlighters • Page fluffers • Page Up	• Books on tape/computer • Reading pens • Language masters • Electronic "talking" dictionary • Augmentive and Alternative Communication devices (AAC) (communication boards, speech output) • Software (Kurzweil Intellitalk III, Start-to-Finish Series, Don Johnston. (high interest/low readability) • MP3 Player

General Accommodations/Assistive Technology

General Accommodations and Assistive Technology tools provide a means of supporting students in the general education setting by facilitating student access to the content.

Skill Area	Method Accommodations	Material Accommodations Low-Tech Tools	Assistive Technology High-Tech Tools
Math 	• Reduced number of problems • Eliminate the need to copy problems • Enlarge worksheet for increased work space • Avoid mixing operational signs on the page/row • Provide extended/adjusted time • Use procedural checklists • Highlight operational signs • Use graph paper for set-up • Use raised number lines • Incorporate "real-life" tasks • Utilize mnemonic devices • Include VAKT opportunities • Use color coding strategies • Use peer-support or cross-age tutoring	• Manipulatives (counters, base 10 blocks, pattern blocks, 2-color counters, linking cubes, algebra tiles, number tiles) • Flash cards (part-to-whole, array) • Flannel board and numbers • Tactile numbers/signs • Automatic number stamps • Fact charts • Personal chalk boards/white boards • Highlighters • Desktop references with visual cues for facts, procedures, and/or formulas • Rulers as number lines • Hundreds charts	• Hand-held calculator • Calculator with printout • Talking calculator • Math tape recorder with musical cues, mnemonics, auditory feedback for flashcard drill activities • Math software programs (IntelliTools, MathPad, Math Pad Plus, Access to Math, Don Johnston, IntelliMathics) • "Coinulator"

General Accommodations/Assistive Technology

General Accommodations and Assistive Technology tools provide a means of supporting students in the general education setting by facilitating student access to the content.

Skill Area	Method Accommodations	Material Accommodations Low-Tech Tools	Assistive Technology High-Tech Tools
Written Expression 	• Provide extended/adjusted time for completion • Modified assignments • "Writer's Corner" (a study carrel for reduced distractions) • Provide graphic organizers with sentence starters • Provide story frames • Utilize oral compositions with a "scribe" • Use oral proofreading to check for meaning and clarity • Utilize mnemonic devices • Include VAKT opportunities • Use color coding strategies • Use peer-support or cross-age tutoring	• Note cards • Word cards/picture symbols • Magnetic word cards and board for composition • Personal dictionary or Quick-Word • Personal chalk boards/white boards • Highlighters • Desktop references • Raised lined paper	• Tape recorder for oral pre-writing, composition, and/or editing • Electronic dictionary/thesaurus • Electronic (speaking) spelling device • Electric eraser • Word processor/keyboard/ computer • Speech output communication system • Communication boards • Software Programs: Kidspiration Inspiration Co:Writer Write:Outloud Draft:Builder Kurzweil IntelliTalk III IntelliPics Studio Type to Learn

General Accommodations/Assistive Technology

General Accommodations and Assistive Technology tools provide a means of supporting students in the general education setting by facilitating student access to the content.

Skill Area	Method Accommodations	Material Accommodations Low-Tech Tools	Assistive Technology High-Tech Tools
 **Handwriting**	• Provide colored paper • Use paper with alternate line spacing • Provide near- point copies • Use tracing, talk-through, dot-to-dot strategies for letter form practice • Include opportunities for Visual, Audio, Kinesthetic, and Tactile learning (VAKT) • Use short answer response opportunities • Vary response formats • Use peer-support and cross-age tutoring • Photocopy notes • Allow preferred writing style (manuscript/cursive)	• Pencil holders/grips • Large-sized pencils and crayons • Acetate sheets and transparency markers • Paper stabilizers • Arm stabilizers/arm guide • Desktop references • Name stamp • Computer labels preprinted with frequent information such as student name • Slant board • Stencils /templates • Correction tape/fluid	• Word processor, computer or Alpha-Smart • Speech output communication system • Communication boards • Custom keyboards

General Accommodations/Assistive Technology

General Accommodations and Assistive Technology tools provide a means of supporting students in the general education setting by facilitating student access to the content.

Skill Area	Method Accommodations	Material Accommodations Low-Tech Tools	Assistive Technology High-Tech Tools
 **Daily Organization**	• Utilize a color-coded schedule with picture graphics • Use color coding system to coordinate notebook, book covers with schedule • Take a photograph of desk/locker/ paper organization to use as a visual reference • Streamline required materials • Use peer-support or cross-age tutoring • Provide checklists for task completion • Flag key tasks/appointments using "post-its" or highlighters • Maintain a regular structure to class assignments or procedures	• Agenda books • Pocket folders/notebooks • Clipboards • Stapler • Storage cubicles • Picture based schedules • 3-hole punch • Pencil cases	• PDAs (Personal Digital Assistants) • Electronic calendars • Auditory signals

General Accommodations/Assistive Technology

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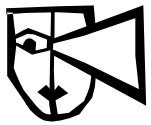
Skill Area	Method Accommodations	Material Accommodations Low–Tech Tools	Assistive Technology High–Tech Tools
 **Visual Processing**	• Enlarge worksheets • Enlarge reading materials • Have worksheets free of blotches/streaks • Change font on worksheets/tests • Double space worksheets/tests • Use wide margins on worksheets • Use different colors of paper • Change lighting • Use different line spacing/color • Utilize darker lines on paper • Utilize raised lines on paper • Limit amount of information on a page • Use "finger-for-spacing" strategy • Provide peer support	• Magnifying glass • Magnifying bars • Page magnifiers • Slant boards • Easel • Paper holders • Workstation copy holder • Stencils • Rulers • Colored acetate sheets • Colored stickers for visual cues • Post-it tape flags • Highlighters • Word window • Line marker • Anti-glare shield on paper	• Book light • Additional lighting • Word processor/Alpha- Smart • Down linking to a computer • Enlarged font

General Accommodations/Assistive Technology

General Accommodations and Assistive Technology tools provide a means of supporting students in the general education setting by facilitating student access to the content.

Skill Area	Method Accommodations	Material Accommodations Low-Tech Tools	Assistive Technology High-Tech Tools
 **Visual Motor Integration**	• Encourage outlining • Dictate ideas into a tape recorder • Practice keyboarding skills • Access computers for organization of information and editing • Practice handwriting and letter formation • Talk aloud while writing • Extend the time for written tasks • Allow students to begin projects and assignments early • Allow dictation of some assignments or tests (or parts thereof) • Train a " scribe" to write verbatim statements and allow the student to make changes without assistance from the scribe • Eliminate "neatness" and/or "spelling" as grading criteria • Separate the writing into stages	• Raised line paper • Graph paper • Colored paper • Colored ink/pencil • Spellchecker • Highlighters • Copies of notes/drills • Do not use Scranton tests • Pencil grips • Page marker/line marker • 14 pt. type on all student papers • Uncluttered planned work space on worksheets • Lines for writing on worksheets • Two single-sided papers instead of one double-sided paper	• Speech recognition software • Augmentive communication device • E-mail homework assignments or call home to record on answering machine • Alpha Smart • Computer • MP3 Player

General Accommodations/Assistive Technology

General Accommodations and Assistive Technology tools provide a means of supporting students in the general education setting by facilitating student access to the content.

Skill Area	Method Accommodations	Material Accommodations Low-Tech Tools	Assistive Technology High-Tech Tools
 **Auditory Processing**	• Keep directions simple–only provide one step at a time • Give directions both orally and visually–to show what you mean • Speak slowly–especially when the child is hearing information for the first time • Maintain eye contact while speaking • Limit background noise when teaching new information or giving directions • Build listening skills • Provide a signal for the start of new tasks • Have a notetaking buddy who will make sure that information is clear • Have child repeat back information or instructions to build comprehension skills and to make sure messages are understood correctly • Provide a quiet work space • Provide notes or use a tape recorder when delivering new information • Proximity to instruction	• Copies of notes for orally presented material • Visual cueing cards • Post-it notes • Written reminders • Agenda book • Picture cues • Color coding	• Kurzweil software • Tape recorder • Communication device • Sign language/cueing

Incorporating Assistive Technology into Differentiated Instruction

The Baltimore County Public Schools Office of Assistive Technology has many resources available to meet the needs of students with various communicative disabilities.

Kurzweil 3000

Kurzweil 3000 is a computer-based screen reader, able to read Microsoft Word and other documents.

Follow this link to find out more information about this resource:

http://www.bcps.org/offices/assistech/faq.html.

Follow this link to request digital content to use with the Kurzweil 3000 system:

https://intranet.bcps.org/offices/assistech/resources_digital_text.asp.

Communication Notebooks

Communication notebooks consist of picture cards stored in archival page sleeves, providing access through tactile and visual stimuli. These include Pull-Off Notebooks (symbols for tactile learners), Topic Notebooks (visual aids to close gaps in verbal communication), and Full-Sized and Small Notebooks for assistance with vocabulary.

Follow this link to find out more information about this resource:

http://www.bcps.org/offices/assistech/notebooks.html.

Eye–Gazed Frame

An Eye–Gazed Frame is a low-tech, augmentative communication strategy used to supplement other systems.

Follow this link to find out more information about this resource:

http://www.bcps.org/offices/assistech/resources_eyegaze.htm.

The Office of Assistive Technology is able to provide additional resources, and can be contacted by phone (410-887-2299), or through Baltimore County Public Schools Intranet at http://www.bcps.org/offices/assistech/default.html.

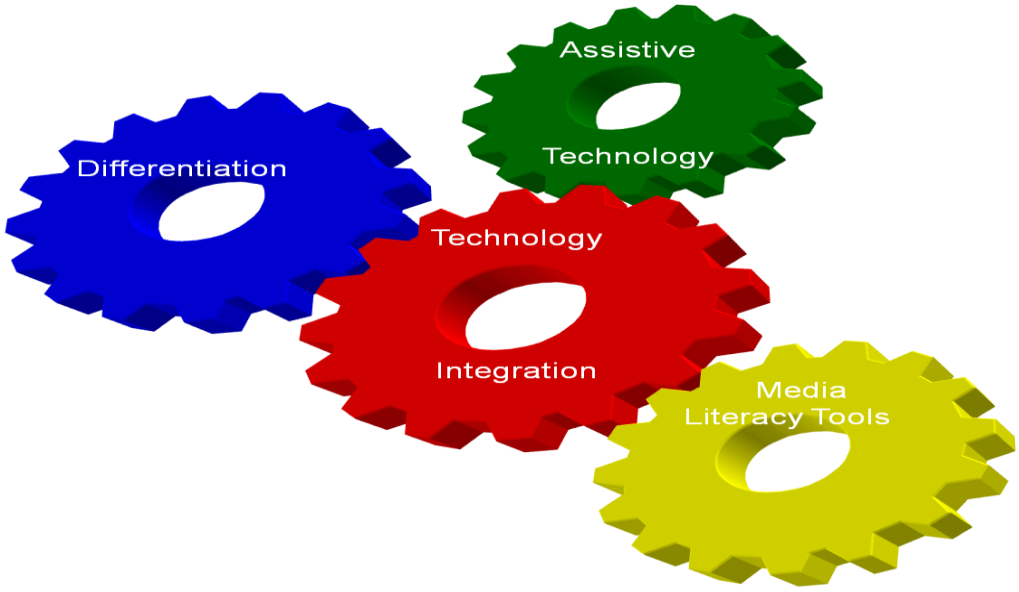
The Research Behind the Universal Design for Learning

"As educators, our aim is simply not to make information accessible to students, but to make learning accessible" (Rose & Meyer 2002).

The Universal Design for Learning focuses on how the brain works and how students learn by using all areas of the brain. The research process for the UDL began in 1990, when researchers started seeing how technology could be incorporated in school curriculum in order to support all students. The research behind UDL breaks the brain into three separate learning networks. These networks are the recognition network, strategic network, and affective network. The recognition network allows us to understand new concepts and process information. The strategic network enables us to execute a given task, and the affective networks allow us to engage and work with a task presented (Rose & Meyer 2002). The goal of the UDL is to take a learning curriculum and allow it to be accessible for all students by using a wide range of representation.

Maya Eagleton describes the UDL as "It recognizes the promise of technology to meet the needs of individual learners because of the inherent and nearly limitless flexibility of technology itself. National legislation requires attention to Universal Design (UD) in curriculum and assessment development."

Educators can have a universal classroom by using the UDL, differentiation, assistive technology, integration of technology, and media literacy tools.

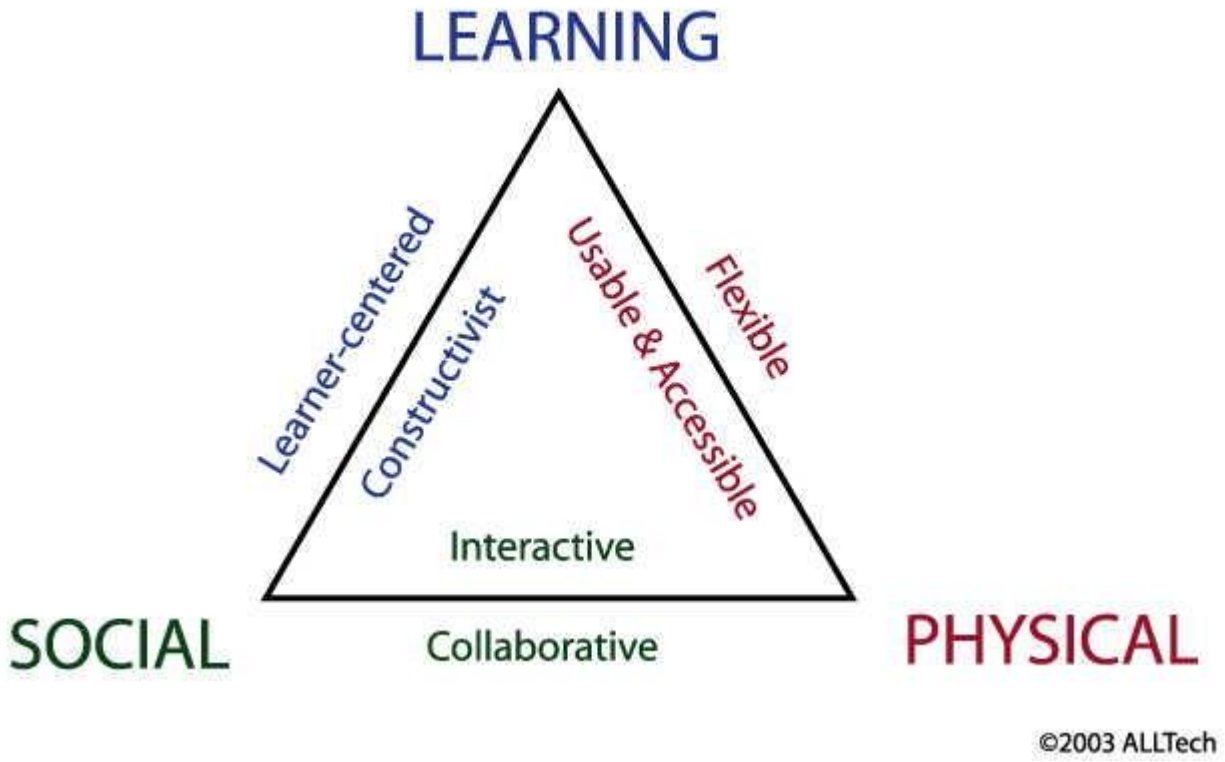


Rationale for Universal Design for Learning

The Universal Design for Learning (UDL) allows teachers to reach all learners. Today's classrooms are significantly diverse and it is the responsibility of the teacher to make sure all students are learning. The UDL incorporates learning styles with technology to reach all learners. "The task for educators is to understand how students learn and use the technology available in this digital age to provide selected supports where they are needed and position the challenge appropriately for all learners" (Rose & Meyer). By having a universally designed curriculum teachers can best support the diverse learning styles that make up a classroom.

Mission of UDL

"UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone–not a single, one-size-fits-all solution but rather flexible approaches that can be customized and adjusted for individual needs."[1]



Source: www.udlcenter.org

Exploring UDL—Links to Cast/UDL Videos

The following video presentations, from the National Center for Universal Design for Learning, will help educators gain a greater understanding of the principles of UDL. **Click on link** to view these four video presentations while expanding your knowledge about UDL.

UDL at a Glance

The rationale of Universal Design for Learning is premised in the lowering of barriers for students with different strengths and needs. The rationale draws on brain research about the three brain networks of recognition, skills and strengths, and caring and prioritizing.

UDL Guidelines Structure

UDL Center Director David Rose uses diagrams to explain the sequence of instruction under Universal Design for Learning. He explains that the intention of UDL is to view instruction on a horizontal, and not linear, continuum. Students should move from comprehension, to executive function, and finally to engagement for the affective domain.

Introduction to UDL

David Rose discusses the history of Universal Design for Learning—based on the premise that teachers need to blend digital media with the presentation of curriculum. In other words, change the means of delivery to meet the diverse population of a classroom, rather than trying to change the students.

Principles of UDL

Discusses how teachers can design activities to align with the functions of the three brain networks (recognition, skills and strengths, caring and prioritizing). Educators should use "multiple means of representation" using the tools available to reach students at varied levels.

Click on this link to watch the video.

http://www.udlcenter.org/resource_library/videos/udlcenter/udl#video

Videos and information from CAST/UDL web site, http://www.cast.org/index.html, refer to link for more information.

Principles of Universal Design for Learning

The UDL has three main principles:

1. To support recognition learning, providing multiple, flexible methods of presentation. (What)
2. To support strategic learning, providing multiple, flexible methods of expression and apprenticeship. (How)
3. To support affective learning, providing multiple, flexible options for engagement. (Why)

Principle 1 – Provide Multiple Means of Representation (What)

Educators should present information so that is in a format for all learning styles.

Provide Options for Perception	Provide Options of Language and Symbols	Provide Options for Comprehension
• Options that customize the display of information • Options that provide alternatives for auditory information • Options that provide alternatives for visual information	• Options that define vocabulary and symbols • Options that clarify syntax and structure • Options for decoding text or mathematical notation • Options that promote cross-linguistic understanding • Options that illustrate key concepts nonlinguistically	• Options that provide or activate background knowledge • Options that highlight critical features, big ideas, and relationships • Options that guide information processing • Options that support memory and transfer

Source: David H. Rose and J. W. Gravel, *"Universal design for Learning", International encyclopedia of education*, 2010, <www.udlcenter.org> accessed on July 26, 2011.

Source: David H. Rose and Anne Meyer, *Teaching Every Student in the Digital Age Universal Design for Learning*, (Alexandria, VA: Association for the Supervision and Curriculum Development, 2002).

Principle 2 – Provide Multiple Means of Action and Expression

Differentiate the ways students can express what they know.

Provide Options for Physical Action	Provide Options for Expressive Skills and Fluency	Provide Options for Executive Functioning
• Options in the mode of physical response • Options in the means of navigation • Options for accessing tools and assistive technologies	• Options in the media for communication • Options in the tools for composition and problem solving • Options in the scaffolds for practice and performance	• Options that guide effective goal-setting • Options that support planning and strategy development • Options that facilitate managing information and resources • Options that enhance capacity for monitoring progress

Principle 3 – Provide Multiple Means of Engagement

Differentiate how students are motivated to learn.

Provide Options for Recruiting Interest	Provide Options for Sustaining Effort and Persistence	Provide Options for Self-Regulation
• Options that increase individual choice and autonomy • Options that enhance relevance, value, and authenticity; and • Options that reduce threats and distractions.	• Options that heighten salience of goals and objectives • Options that vary levels of challenge and support • Options that foster collaboration and communication • Options that increase mastery-oriented feedback	• Options that guide personal goal-setting and expectations • Options that scaffold coping skills and strategies • Options that develop self-assessment and reflection

Source: David H. Rose and J. W. Gravel, *"Universal design for Learning"*, *International encyclopedia of education*, 2010, <www.udlcenter.org> accessed on July 26, 2011.

Source: David H. Rose and Anne Meyer, *Teaching Every Student in the Digital Age Universal Design for Learning*, (Alexandria, VA: Association for the Supervision and Curriculum Development, 2002).

Research

Rick Stiggins (2007) suggests assessments have two common purposes: assessment *of* learning and assessment *for* learning. Assessment *of* learning is summative and evaluative. Assessment *for* learning is ongoing, formative, and informative (pre-assessments) (Stiggins, 2007). The method of assessment (selected response, written response, performance assessment, etc.) must match the purpose for assessing the student in order to be effective (Fisher & Frey, 2007). Each form of assessment provides teachers with valuable data. However, ongoing, formative, and informative assessments provide real-time diagnostic data crucial for providing feedback and adjusting instruction to meet the needs of all learners (Chapius, Stiggins, & Commodore, 2010). Multiple, varied assessments help to establish a more complete picture of what students know and are able to do based on the idea students have multiple intelligences and learning styles (Popham, 2008). According to Thomas Guskey (2007), high quality corrective instruction that helps students eliminate errors should follow well-developed assessments. Good assessments are clear and address specific learning targets.

For more information on assessment and data analysis, go to:
http://www.mdk12.org/assessments/index.html
http://www.mdk12.org/data/index.html

Pre-Assessment

Pre-assessments are designed to explore the students' background knowledge and skills related to a concept. These assessments precede instruction. They may be designed to pre-assess the students' attitudes, beliefs, and/or misperceptions about their background knowledge and skills. The teacher utilizes pre-assessments for the purpose of establishing an entry point or readiness level for daily instruction. Pre-assessments/diagnostic assessments may be administered individually, with a partner, or in small groups. Pre-assessment data should not be factored into the students' cumulative grade (Tomlinson & Moon, 2011).

Benefits of Using Pre-Assessments

For Teachers:

- Provides information about the range and depth of student understanding.
- Assists in the planning of instruction that targets student achievement based on readiness, interest, and learning preferences.
- Cues teachers to address misconceptions about content.
- Allows teachers to provide specific feedback.

For Students:

- Activates prior knowledge.
- Provides pathways for students to construct new knowledge.
- Connects new information with what they already know.
- Provides opportunities to reflect on prior experiences.

Types of Pre-Assessments

- Prompts, questions, or surveys
- Word Sort using vocabulary words related to the concept
- Pictures/visuals related to the concept
- Gallery Walks: Have questions posted on chart paper, and have small groups circulate to generate prior knowledge.
- K-W-L tasks

Note: Check your curriculum guides for additional pre-assessment/diagnostic tools.
Source: Maryland Assessment Consortium 2002

Formative Assessment

Formative assessments provide information to guide instruction and facilitate student learning. Formative assessments should be ongoing throughout the lesson each day. Information gained from formative assessments allows the teacher to monitor student progress and make necessary instructional adjustments. Feedback relative to students' performance is a key component of effective formative assessments. Research shows students who understand the learning objectives and assessment criteria in addition to having opportunities for reflection on their work demonstrate greater improvement than those students who do not (Tomlinson, 2008; Popham, 2008). Similarly, students with learning disabilities who are taught to use self-monitoring strategies related to their understanding of reading and writing tasks show performance gains. Formative assessments include both formal and informal methods.

Types of Formative Assessments

- Quizzes, quick-writes, or exit slips.
- Draft work samples.
- Think Aloud or Think-Pair-Share activities.
- Student portfolio review.
- Student self-assessments.
- Use of higher order questions throughout the lesson to determine student's ability to apply and analyze what he or she knows.
- Observation using pre-established criteria to monitor student understanding.

See "Ongoing Informal Assessments" in the appendix for more examples.

Summative Assessment

Summative assessments provide evidence of the students' enduring learning. Summative assessments are conducted at the end of a unit of instruction, course, or grade level to determine the degree of mastery or proficiency based on identified achievement targets. Summative assessments are evaluative in nature, generally resulting in a score or a grade.

Types of Summative Assessments

- Unit tests or final exams.
- Culminating projects or performances.
- Work portfolio analysis.
- Benchmarks and short cycles (Please refer to content offices for specific information http://www.bcps.org/offices.)

Testing

The Office of Assessment is responsible for coordinating, implementing, and providing information about federal, state, and county-mandated testing programs within the school system. Among these are the Maryland School Assessment (MSA), Alternate Maryland School Assessment (ALT-MSA), High School Assessments (HSA), and Modified High School Assessments (Mod-HSA). The office also provides links to information and contacts for the Baltimore County Public Schools' Short-cycle and Benchmark Assessment Program. You may access the Office of Assessment by going to https://intranet.bcps.org/offices/accountability/assessment.html.

Testing accommodations provide the means for assessing students' abilities rather than the students' disabilities. Approved MSDE Testing Accommodations are provided in the Appendix. You may also access the Maryland Accommodations Manual at http://www.msde.maryland.gov/NR/rdonlyres/840EFBB6-CD7D-404E-8A77-E978F6D508AA/16337/MDAccommodationsManual_21108.pdf.

Sources:

Frederiksen, J.R. & White, B.J. (1997). Reflective Assessment of Students' Research Within an Inquiry-Based Middle School Science Curriculum. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Popham, J. (2008). *Transformative Assessment*. Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C. A. (2008). Learning to Love Assessment. *Educational Leadership*, *65*(4), 8-13.

Assessment Options

Student progress monitoring is an essential facet of the instructional process. Assessments should serve as one of the instruments through which students demonstrate and extend what they have learned. Just as daily instruction is differentiated to meet diverse student needs, the assessment tools should reflect a variety of formats to evaluate learning goals and objectives. It is most important that the teacher consistently and continually examine and evaluate the effectiveness of the assessment tools utilized in his/her instructional programs. The following assessment options are presented for teacher use:

- Selected response format (multiple choice, true/ false) quizzes and tests.
- Written/oral responses to academic prompts (short-answer format).
- Performance assessment tasks, yielding:
    - extended written products (essays, lab reports).
    - visual products (PowerPoint presentations, murals).
    - oral performances (oral reports, foreign language dialogues).
    - demonstrations (skill performance tasks).
    - long-term "authentic" projects (exhibitions).
- Portfolios.
- Reflective journals or learning logs.
- Informal/ongoing observations of students.
- Formal observations of students using observable indicators or criteria.
- Student self-assessments.
- Peer reviews and peer response groups.

Sources:

Brookhart, S. (2011). Multiple measures in classroom assessment. *Better: Evidence-based Education*, spring, 10-11.

Andrade, H. (2011). Promoting learning and achievement through self-assessment. *Better: Evidence-based Education*, spring, 12-13.

Key Questions Related to the Use of Assessment Tools

- Do I utilize assessments that effectively evaluate the learning goal or objective?
- Do I utilize assessments that collect appropriate evidence of student learning?
- Do I utilize assessments that include adequate opportunities for the student to demonstrate understanding of the knowledge and skills targeted in the instruction?
- Do I utilize assessments that are varied and comprehensive?
- Do I utilize assessments that include accommodations and modifications as identified in the student's IEP/504 Plan?

Based on Marzano, R. J. (2007). *The Art and Science of Teaching: A Comprehensive Framework for Effective Instruction*. Alexandria, VA: Association for Supervision and Curriculum Development.

Scoring Tools and Rubrics

There are a variety of ways to assess student work. The chart below identifies characteristics, benefits, and drawbacks of each tool.

Type	Characteristics	Benefits	Drawbacks
Checklists	List of criteria (What should be included or not included?) Criteria can be weighted.	Quick to use. Easy for students to use to access their own work.	Little control over quality of criteria
Rating Scales	Similar to checklists, but includes a general quality rating of elements. Criteria can be weighted.	Quick to use for teachers and students. Some control over quality of elements	Same as above Avoid using middle ground.
General/Holistic Rubric	Describes levels of performance of criteria by grouping criteria together.	Clarifies expectations for students; can be holistic or analytic. Students can use to assess their own work. Can be used for interdisciplinary tasks.	May be too generic.
Analytic Rubric	Allows discrimination among areas of performance (weights).	Clarifies expectations among sub-categories. Provides more specific feedback on performance.	Requires more time to score.
Activity-Specific Rubric	Divides performance into criteria.	May be holistic or analytic. Students can use to assess their own work.	Applies to only one assignment/task.

After you have selected the most appropriate tool for the assignment, consider the following:

- How will you introduce the rubric or scoring tool to the students?
- How will you teach the students to use the rubric or scoring tool?
- How will you guide the students as they learn to self-assess using the rubric or scoring tool?

Note: Please refer to content offices for specific rubrics used in each subject area.
http://www.bcps.org/offices

Andrade, H. (2008). Self-Assessment through rubrics. *Educational Leadership, 65*(4), 60-63.

Anchor Papers

Anchor papers define what a response looks like at each point in the scoring process. Anchor papers can be identified by individual teachers or as a team. Identifying anchor papers allows for more collaboration between teacher and scoring consistency. It also provides a quick reference to use when scoring, and enables teachers to clarify learning and performance expectations. The models below explain the process for identifying anchor papers.

Model 1	Model 2
Based on Scoring Criteria	**Based on Student Responses**
Review the scoring tool to become familiar with the range and criteria for each score point.	Follow a consensus process to sort student responses into three groups: "high," "medium," or "low" quality.
Follow a consensus process to evaluate student responses using the scoring tool.	Decide on the distinguishing characteristics of the "high quality" responses.
Sort the scored responses into groups corresponding with the score points.	Use these characteristics to identify the criteria for the top score point of the scoring tool.
Select several responses that best illustrate the distinguishing characteristics for the top score point. These are the anchors.	Select several responses that best illustrate the distinguishing characteristics for the top score point. These are the anchors.
Repeat the process for the other score points.	Repeat the process for the other groups of student responses.
Use when the task has been validated through reviews, field-testing, and revision.	Use when the task and scoring tool are being tried for the first time.
Use when the scoring tool has been validated.	Use when the scoring tool is in draft form and has not yet been validated.

Reprinted with permission. Jay McTighe and Marcella Emberger, "Assessment for collaborative learning: Powerful designs for professional learning", *(Oxford, OH: National Staff Development Council, 2004).*

Adapted Physical Education (Adapted PE)
Adapted Physical Education means that physical education has been modified to meet the needs of children with disabilities.

Adaptive Skills
Adaptive skills are skills needed to live, work, and play in the community. When identifying a child with an intellectual disability, deficits in adaptive skills must be present. There are ten areas of adaptive behaviors: self-care, communication skills, self-direction, social skills, leisure skills, home or school living, functional academics, community use, work, and help and safety.

Americans with Disabilities Act (ADA)
Prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, state and local government services, public accommodations, commercial facilities, and transportation. The ADA requires that reasonable accommodations be provided in meeting the needs of individuals with disabilities. Additional technical assistance regarding the ADA is available through the ADA Technical Assistance Program.
Source: http://www.section508.gov/

Annual Review
Annual Review means that the IEP Team reviews the child's IEP periodically but not less than annually to determine whether the annual goals for the child are being achieved and they revise the IEP as appropriate.

Assistive Technology Device (AT Device)
Assistive Technology Device is any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized that is used to increase, maintain, or improve the functional capabilities of a child with a disability.

Assistive Technology Service
Assistive Technology Service is any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device.

Augmentative Alternative Communication Devices (AAC Devices)
Augmentative and alternative communication (AAC) includes all forms of communication (other than oral speech) that are used to express thoughts, needs, wants, and ideas. We all use AAC when we make facial expressions or gestures, use symbols or pictures, or write.
People with severe speech or language problems rely on AAC to supplement existing speech or replace speech that is not functional. Special augmentative aids, such as picture and symbol communication boards and electronic devices, are available to help people express themselves. This may increase social interaction, school performance, and feelings of self-worth.
Source: American Speech-Language-Hearing Association
http://www.asha.org/public/speech/disorders/AAC.htm

Autism
Autism is a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3 that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. The term does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance. A child who manifests the characteristics of autism after age 3 could be diagnosed as having autism if the criteria are satisfied.
Sources:
http://www.nichd.nih.gov/publications/pubs/upload/autism_overview_2005.pdf#page=3
http://www.cec.sped.org/AM/Template.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=2424

Adequate Yearly Progress (AYP)
Adequate Yearly Progress is the gain that schools, school systems, and states must make each year in the proportion of students achieving proficiency in reading/language arts and math.

Behavioral Intervention Plan (BIP)
The Behavioral Intervention Plan is the plan that is developed as an outcome of the FBA. It should focus on positive supports and strategies to address the events, environmental factors, and/or actions that trigger the behavior to teach the student a replacement behavior or skill that serves the same functional intent for the student. In addition, it includes information to address how to implement the BIP consistently across settings.

Case Manager
A case manager is the educator designated to coordinate all services for a student with an IEP.

Child with a Disability
A child with a disability is a child evaluated in accordance with §§300.530-300.536 as having mental retardation, a hearing impairment including deafness, a speech or language impairment, a visual impairment including blindness, serious emotional disturbance (hereafter referred to as emotional disturbance), an orthopedic impairment, autism, traumatic brain injury, another health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related services.

Co-Teaching
Co-teaching occurs when two or more licensed professionals jointly deliver purposeful instruction and share accountability for single heterogeneous group of students in a common physical space.

Collaboration
Interpersonal collaboration is a style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work toward a common goal (Cook & Friend, 2010).

Common Core State Standards
The Common Core Standards is a state-led effort coordinated by the National Governor's Association and the Council of Chief State School Officers. On June 21, 2011, the Maryland State Board of Education unanimously accepted Maryland's Draft Common Core Curriculum Frameworks for English/Language Arts and Mathematics, which define the essential skills and knowledge that students need to know and be able to do in order to achieve the academic goals of the Common Core State Standards.
Source: http://www.msde.maryland.gov/MSDE/programs/ccss

Deaf-Blindness
Deaf-blindness means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.

Deafness
Deafness means a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects a child's educational performance.

Developmental Delay
Children aged 3 through 9 experiencing developmental delays. The term "child with a disability" for children aged 3 through 9 may, at the discretion of the State and LEA and in accordance with §300.313, include a child:
(1) Who is experiencing developmental delays, as defined by the State and as measured by appropriate diagnostic instruments and procedures, in one or more of the following areas: physical development, cognitive development, communication development, social or emotional development, or adaptive development
(2) Who, by reason thereof, needs special education and related services

Differentiation
Differentiation is an approach to teaching in which the teacher strives to do whatever is necessary to ensure that struggling and advanced learners, students of various cultural heritages, and children with differing backgrounds and experience learn to their greatest potential.

Emotional Disability (ED)
Emotional disability is defined as follows:
(1) A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:
(a) An inability to learn that cannot be explained by intellectual, sensory, or health factors.
(b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
(c) Inappropriate types of behavior or feelings under normal circumstances.
(d) A general pervasive mood of unhappiness or depression.

(2) A tendency to develop physical symptoms or fears associated with personal or school problems. The term includes schizophrenia, but does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disability.
Source: http://nichcy.org/disability/specific/emotionaldisturbance#def

Extended School Year (ESY)
Extended School Year service means special education and related services that are provided to a child with a disability beyond the normal school year of the public agency in accordance with the child's IEP, and at no cost to the parents of the child.

Free Appropriate Public Education (FAPE)
Free Appropriate Public Education means special education and related services that have been provided at public expense which meet the standards of the State educational agency and are provided in conformity with the individualized education program required under section 614(d).

Functional Behavioral Assessment (FBA)
Functional Behavioral Assessment is the process of gathering information that reliably predicts the conditions and/or circumstances surrounding a student's behavior that is considered inappropriate. This assessment is a collaborative, student-centered, problem-solving process.

Hearing Impairment
Hearing impairment is an impairment in hearing, whether permanent or fluctuating, that adversely affects a child's educational performance but that is not included under the definition of deafness in this section.

Home and Hospital
These are educational services provided to a child who cannot attend school because of a temporary physical or emotional condition.

Inclusion
Inclusion is the process by which a student with an educational disability is placed as a full participating member of a general education class, to the extent appropriate, in his/her home school.

Individuals with Disabilities Education Act (IDEA)
The Individuals with Disabilities Education Act (IDEA) is a law ensuring services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education , and related services to more than 6.5 million eligible infants, toddlers, children, and youth with disabilities.
*Infants and toddlers with disabilities (birth-2) and their families receive early intervention services under IDEA Part C. Children and youth (ages 3-21) receive special education and related services under IDEA Part B. Source: http://idea.ed.gov/

IEP (Individualized Education Program)
An Individualized Educational Program is a written statement for a child with a disability that is developed, reviewed, and revised in a meeting in accordance with §§300.341-300.350.

IEP Team
The IEP Team is a group of individuals composed of the parents of a child with a disability, at least one regular education teacher of said child (if the child is or may be participating in the regular education environment), at least one special education teacher, or where appropriate, at least one special education provider of said child, an individual who can interpret the instructional implications of evaluation results, other individuals who have knowledge or special expertise regarding the child (including related services personnel, as appropriate) and, whenever appropriate, the child with a disability.

Intellectual Disability
Intellectual Disability means general intellectual functioning, adversely affecting a student's educational performance that:

1. Is significantly subaverage.
2. Exists concurrently with deficits in adaptive behavior.
3. Is manifested during the developmental period.

K-W-L

Abbreviated from Know-Want-Learn this is instructional strategy partially completed before the reading or teaching of a material, and partially afterwards. Students fill out two sections, "What I Know" and "What I Want to Know" beforehand, and then fill out "What I Learned" after the reading. Source: http://www.education.com/definition/kwl/

Learning Preferences
Learning preferences are an indication of the conditions in which students prefer to work and learn.

Learning Styles
Learning styles are an indication of how students mentally receive, perceive, process, understand, and internalize new knowledge.

Least Restrictive Environment (LRE)
Each public agency shall ensure the following:
(1) That, to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are nondisabled.
(2) That children with disabilities are educated alongside children without disabilities as much as appropriate. "Appropriate" means that the education fits the child's special needs and allows the child to make educational progress. The regular education classroom is the first placement choice the IEP team must consider.
(3) That special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only if the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

Multiple Disabilities
Multiple Disabilities means concomitant impairments (such as mental retardation-blindness, mental retardation-orthopedic impairment, etc.), the combination of which causes such severe educational needs that the student cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blindness.

Natural Supports
Natural Supports refers to the use of pre-existing materials or people that are typically available as a first option in providing support.

Nonpublic
This is placement of a student with a disability in an accredited private special education school at public expense.

Orthopedic Impairment
Orthopedic Impairment means a severe orthopedic impairment that adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly (e.g., clubfoot, absence of some member, etc.), impairments caused by disease (e.g., poliomyelitis, bone tuberculosis, etc.), and impairments from other causes (e.g., cerebral palsy, amputations, and fractures or burns that cause contractures).

Other Health Impaired
Other Health Impaired means having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that:
(1) Is due to chronic or acute health problems such as asthma, attention deficit disorder, or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, and sickle cell anemia.
(2) Adversely affects a child's educational performance.

Program Modifications and Supports
Program Modifications and Supports are the modifications and supports needed to help the student advance toward annual goals, be involved in the general curriculum, participate in extracurricular and nonacademic activities, and be instructed with other students with and without disabilities. Examples include, but are not limited to, adapted assignments, specialized classroom seating, testing modifications, staff training, physical modifications of the classroom, and individual assistance as determined by the IEP team.

Response to Intervention (RTI)
Response to Intervention is a system used at each school to screen, assess, identify, plan for, and provide interventions to any student at risk of school failure due to academic or behavior needs.

Section 504
To be protected under Section 504, a student must be determined to: (1) have a physical or mental impairment that substantially limits one or more major life activities; or (2) have a record of such an impairment; or (3) be regarded as having such an impairment. Section 504 requires

that school districts provide a free appropriate public education (FAPE) to qualified students in their jurisdictions who have a physical or mental impairment that substantially limits one or more major life activities.
Source: http://www2.ed.gov/about/offices/list/ocr/504faq.html

Specific Learning Disability (SLD)
The term Specific Learning Disability means a disorder in one or more of the basic psychological processes involved in understanding or using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. SLDs include conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include learning problems that are primarily the result of visual, hearing, or motor disabilities; of mental retardation; of emotional disturbance; or of environmental, cultural, or economic disadvantage.

Supplementary Aids and Services
Supplementary Aids and Services are aids, services, and other supports that are provided in regular education classes or other education-related settings to enable children with disabilities to be educated with non-disabled children to the maximum extent appropriate in accordance with §§300.550-300.556.

Special Education
Special Education is specially designed instruction, at no cost to the parents, intended to meet the unique needs of a child with a disability, including instruction conducted in the classroom, in the home, in hospitals and institutions, and instruction in physical education.

Speech or Language Impairment
Speech or Language Impairment means a communication disorder, such as stuttering, impaired articulation, language impairment, or a voice impairment, that adversely affects a child's educational performance.

Systematic Instruction in Phoneme Awareness, Phonics, and Sight Words (SIPPS)
The SIPPS program, a solution for struggling readers, is a decoding curriculum that teaches the prerequisites for developing reading fluency and comprehension.

Testing Accommodations
An accommodation is defined as that which is needed by the student to take tests given as part of the State's or jurisdiction's ongoing assessment program. The intent of test accommodations is to mediate the effect of a student's disability so that the construct of the test is measured, not the effect of the disability on the skills and processes being assessed. Test accommodations must be aligned with and be part of daily instruction.

Three Year Re-Evaluation
Three Year Re-Evaluation means the review of existing evaluation data on the child, including evaluations and information provided by the parents of the child, current classroom-based assessments and observations, and teacher and related service provider observations. The

following factors are considered in identifying what additional data, if any, are needed to determine whether the child continues to have a disability:

- The present levels of performance and educational needs of the child
- Whether the child continues to need special education and related services
- Whether any additions or modifications to the special education and related services are needed to enable the child to meet the measurable annual goals set out in the individualized education program of the child and to participate, as appropriate, in the general curriculum

Transition Services

The term "transition services" means a coordinated set of activities for a child with a disability that:

1. Is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of the child with a disability to facilitate the child's movement from school to post-school activities, including post-secondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation;
2. Is based on the individual child's needs, taking into account the child's strengths, preferences, and interests; and
3. Includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation.

Traumatic Brain Injury

Traumatic Brain Injury is an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment or both, that adversely affects a child's educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. The term does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma.

Universal Design for Learning (ULD)

The Universal Design for Learning is a set of principles for curriculum development that gives all individuals equal opportunities to learn.

Visual-Auditory-Kinesthetic-Tactile (VAKT)

A multi-sensory approach to academic instruction that incorporates visual, auditory, kinesthetic, and tactile learning opportunities.

Visual Impairment

Visual Impairment including blindness is an impairment in vision that, even with correction, adversely affects a child's educational performance. The term includes both partial and total blindness.

Wilson Language Program

The Wilson language program is a Tier III intervention, in reference to RTI. Based on Orton-Gillingham principles, Wilson is a highly-structured remedial program that directly teaches the structure of the language to students who have been unable to learn with other teaching strategies, or who may require multisensory language instruction.

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APPENDIX

Role of the General Educator in the IEP Process

In preparation for IEP team, be prepared to share:

- A summary of pertinent prior communication with the parent.
- Progress toward the general curricula.
- A representative sample of student work.
- Recent classroom, school, and statewide assessment results (report card, interim, MSA, HSA, etc.)
- Examples of how the IEP is being implemented in your classroom (teacher report, progress sheets, charting).
- The student's strengths, needs, and learning styles.

When participating in IEP team, be prepared to discuss:

- The goals in relation to the student's participation in the general education curriculum.
- The need for positive behavioral interventions.
- Intervention strategies and the student's response.
- Appropriate program and curricular modification for the student.
- Supplementary aids and services to assist the student.
- The general education curriculum.
- Typical development and expectation for a student in that grade level.
- Accommodations, modifications, and adaptations attempted as well as the results of their use.
- Prior instruction in reading and math when IEP team is determining eligibility.

Federal Census Disability Codes
Quick Reference

Code #	Name of Disability
01	Intellectual Disability
02	Hearing Impairment
03	Deaf
04	Speech or Language Impairment
05	Visual Impairment
06	Emotional Disability
07	Orthopedic Impairment
08	Other Health Impairments
09	Specific Learning Disabilities
10	Multiple Disabilities
12	Deaf-Blindness
13	Traumatic Brain Injury
14	Autism
15	Developmental Delay

Source:
Maryland Association of Nonpublic Special Education Facilities
http://www.mansef.org/school_detail.php?id=20

Individualized Education Program (IEP)

Maryland State Department of Education (MSDE)
Division Of Special Education/Early Intervention Services

III. Special Considerations And Accommodations

Name: **Agency:** **IEP Team Meeting Date:**

Instructional and Testing Accommodations

1. PRESENTATION ACCOMMODATIONS ('I' covers all instruction/intervention including Bridge Plan)		
Visual Presentation Accommodations		**Conditions for Use In Instruction and Assessment**
☐	1-A: Large Print (Prior Code: III-A)	I, A
☐	1-B: Magnification Devices (Prior Code: N/A, none)	I, A
☐	1-C: Interpretation/Transliteration for the Deaf and Hard of Hearing (Prior Code: IV-D)	I, A
Tactile Presentation Accommodations		
☐	1-D: Braille (Prior Code: III-B)	I, A
☐	1-E: Tactile Graphics (Prior Code: N/A, none) NOTE: For purposes of State assessments, any tactile graphics needed are included with the Braille version of the test.	I, A
Auditory Presentation Accommodations		
☐	1-F: Human Reader, Audio Tape, or Compact Disk Recording for Verbatim Reading of Entire Test (Prior Codes: IV-F, IV-H)	I, A*
☐	1-G: Human Reader, Audio Tape, or Compact Disk Recording for Verbatim Reading of Selected Sections of Test (Prior Codes: IV-G, IV-I)	I, A*
☐	1-H: Audio Amplification Devices (Prior Code: IV-D)	I, A
☐	1-J: Books on Tape (Prior Code: III-C)	I, N/A
☐	1-K: Recorded Books (Prior Code: III-C)	I, N/A
Multi-Sensory Presentation Accommodations		
☐	1-L: Video Tape and Descriptive Video (Prior Code: N/A, none) NOTE: No Maryland assessments currently incorporate video-taped stimulus materials. However, if video tape is used, students must have access to closed captioning on video materials, as appropriate.	I, N/A
☐	1-M: Screen Reader for Verbatim Reading of Entire Test (Prior Codes: IV-F, IV-H)	I, A*
☐	1-N: Screen Reader for Verbatim Reading of Selected Sections of Test (Prior Codes: IV-G, IV-I)	I, A*

☐	1-O: Visual Cues (Prior Code: N/A)	I, A
☐	1-P: Notes, Outlines, and Instructions (Prior Code: N/A, none)	I, N/A
☐	1-Q: Talking Materials (Prior Code: III-C)	I, A
Other Presentation Accommodations		
☐	1-R: Other (Prior Code: IV-J):	Determined on a case-by-case basis in consultation with MSDE

* Use of the verbatim reading accommodation is permitted on all assessments as a standard accommodation, with the exception of: (1) the Maryland School Assessment (MSA) in reading, grade 3 only, which assess a student's ability to decode printed language. Students in grade 3 receiving this accommodation on the assessment will receive a score based on standards 2 and 3 (comprehension of informational and literary reading material) but will not receive a score for standard 1, general reading processes. (2) The Maryland Functional Reading Test.
Any screen reader may be used for instruction, but the only screen reader currently supported by the State for assessment is the Kurzweil™ 3000. In order for students to use the Kurzweil™ 3000 screen reader for testing, students must have used a screen reader in instruction and have had an opportunity to become familiar with the operation of the Kurzweil™ 3000 interface. Although a Human reader is always permissible to deliver a verbatim reading accommodation, the State encourages the use of screen readers on State testing, to promote standardization of the verbatim reading accommodation.

Discussion to Support Decision:

2. RESPONSE ACCOMMODATIONS ('I' covers all instruction/intervention including Bridge Plan)

Response Accommodations		**Conditions for Use In Instruction and Assessment**
☐	2-A: Scribe (Prior Codes: V-B, V-E)	I, A
☐	2-B: Speech-to-Text (Prior Codes: III-D, III-E)	I, A
☐	2-C: Large-Print Response Book (Prior Code: III-A)	I, A
☐	2-D: Brailler (Prior Code: III-B)	I, A
☐	2-E: Electronic Note-Takers and Word Processors (Prior Code: N/A, none)	I, A
☐	2-F: Tape Recorder (Prior Code: V-C)	I, A
☐	2-G: Respond on Test Booklet (Prior Code: V-A)	I, A
☐	2-H: Monitor Test Response (Prior Code: V-D)	I, A

Materials or Devices Used to Solve or Organize Responses		**Conditions for Use In Instruction and Assessment**
☐	2-J: Calculation Devices (Prior Code: III-C)	I, A

☐	2-K: Spelling and Grammar Devices (Prior Code: III-D)	I, A*
☐	2-L: Visual Organizers (Prior Code: N/A, none)	I, A**
☐	2-M: Graphic Organizers (Prior Code: N/A, none)	I, A
☐	2-N: Bilingual Dictionaries (Prior Code: III-F)	I, A
Other Response Accommodations		
☐	2-O: Other (Prior Code: V-J):	Determined on a case-by-case basis in consultation with MSDE

*Use of the verbatim reading accommodation is permitted on all assessments as a standard accommodation, with the exception of (1) the Maryland School Assessment (MSA) in reading, grades 3 and 4, which assess student's ability to decode printed language. Students in those grades receiving this accommodation on the assessment will receive a score based on standards 2 and 3 (comprehension of informational and literary reading material) but will not receive a score for standard 1, general reading processes, and (2) the Maryland Functional Reading Test.
*Spelling and grammar devices are not permitted to be used on the English High School Assessment.
**Photocopying of secure test materials requires approval and must be done under the supervision of the Local Accountability Coordinator (LAC). Photocopied materials must be securely destroyed under the supervision of the LAC. Use of highlighters may be limited on certain machine-scored test forms, as highlighting may obscure test responses. Check with the LAC before allowing the use of highlighters on any State Assessment.

Discussion to Support Decision:

3. TIMING AND SCHEDULING ACCOMMODATIONS ('I' covers all instruction/intervention including Bridge Plan)

Timing and Scheduling Accommodations		**Conditions for Use In Instruction and Assessment**
☐	3-A: Extended Time (Prior Code: I-C)	I, A
☐	3-B: Multiple or Frequent Breaks (Prior Code: I-A)	I, A
☐	3-C: Change Schedule or Order of Activities — Extend Over Multiple Days (Prior Code: I-B)	I, A
☐	3-D: Change Schedule or Order of Activities — Within One Day (Prior Code: I-D)	I, A
Other Timing and Scheduling Accommodations		
☐	3-E: Other (Prior Code: I-E):	Determined on a case-by-case basis in consultation with MSDE

Discussion to Support Decision:

4. SETTING ACCOMMODATIONS ('I' covers all instruction/intervention including Bridge Plan)		
Setting Accommodations		**Conditions for Use In Instruction and Assessment**
☐	4-A: Reduce Distractions to the Student (Prior Codes: II-A, II-B, II-E, II-F)	I, A
☐	4-B: Reduce Distractions to Other Students (Prior Code: II-G)	I, A
☐	4-C: Change Location to Increase Physical Access or to Use Special Equipment — Within School Building (Prior Codes: II-C, II-D)	I, A
☐	4-D: Change Location to Increase Physical Access or to Use Special Equipment — Outside School Building (Prior Code: II-I)	I, A
Other Setting Accommodations		
☐	4-E: Other (Prior Code: I-E):	Determined on a case-by-case basis in consultation with MSDE
Discussion to Support Decision:		
☐ Instructional and testing accommodations were considered and no instructional and testing accommodations are required at this time.		
Discussion to Support Decision:		

(Form approved by MSDE for use July 1, 2011)

MARYLAND STATE DEPARTMENT OF EDUCATION

Achievement Matters Most

MARYLAND HIGH SCHOOL GRADUATION REQUIREMENTS

To be awarded a diploma, a student shall be enrolled in a Maryland public school system and have earned a minimum of 21 credits that include the following:

Subject Area	Specific Credit Requirements	High School Assessments
English	**4 credits**	Students who entered grade 9 in the 2005-06 school year and later are required to take and pass the Maryland High School Assessments or meet the requirement by one of the approved alternatives. Students who entered grade 9 in the 2004-05 school year and earlier are required to take the assessments but are not required to pass them.
Mathematics	**3 credits** • 1 in algebra/data analysis • 1 in geometry • 1 other	
Science	**3 credits** • 1 in biology • 2 that must include laboratory experience in any or all of the following areas: earth science, life science, physical science, environmental science	
Social Studies	**3 credits** • 1 in U.S. history • 1 in world history • 1 in local, state, national, government	
Fine Arts	**1 credit**	
Physical Education	**½ credit**	
Health	**½ credit**	
Technology Education	**1 credit**	
Other	**2 credits** of foreign language **or** **2 credits** in American Sign Language* **or** **2 credits** of advanced technology ed. **and** **3 credits** in electives **or** **4 credits** by successfully completing a State-approved career & technology program **and** **1 credit** in an elective *American Sign Language is an option beginning with students who graduate in 2008 and beyond.	
Students must also meet attendance, service-learning, and all local school system requirements.		

October 2010

One Hundred Ways to Praise Students

Be free with praise for even minor successes; it will encourage larger successes. Be careful, however, never to be phony and praise when it isn't deserved; you will lose your credibility and the value of future praise.

Fantastic!
That's really nice.
That's clever.
You're right on target.
Thank you!
Wow!
That's great!
Very creative.
Very interesting.
I like the way you're working.
Good thinking.
That's an interesting way of looking at it.
It's a pleasure to teach you when you work like this.
Now you've figured it out.
Keep up the good work.
You've made my day.
Purrrfect!
You're on the ball today.
This is something special.
Everyone's working so hard.
That's quite an improvement.
Much better.
Keep it up.
That's the right answer.
Exactly right!
You're on the right track now.
This is quite an accomplishment.
I like how you've tackled this assignment.
A powerful argument!
That's coming along nicely.
I like how you've settled down to work.
You've shown a lot of patience with this.
I noticed that you got right down to work.
You've really been paying attention.
It looks like you've put a lot of work into this.
You've put in a full day today.
This is prize-winning work.
An A-1 paper!
I like your style.
Pulitzer-prize-winner in training
This shows you've been thinking.
Your style has spark.
Your work has much personality.
That's very perceptive.
This is a moving scene.
Your remark shows a lot of sensitivity.
This really has flair.
Clear, concise, and complete!
A well-developed theme!
You are really in touch with the feeling here.
This piece has pizzazz!
A splendid job!
You're right on the mark.
Good reasoning.
Very fine work.
You really scored here.
Outstanding!
This is a winner!
Go to the head of the class.
Superb!
Super!
Superior work.
Great going!
Where have you been hiding all this talent?
I knew you could do it!
You're really moving.
Good job.
What neat work!
You really outdid yourself today.
That's a good point.
That's a very good observation.
That's certainly one way of looking at it.
This kind of work pleases me very much.
Congratulations! You got _____more correct today.
That's right. Good for you.
Terrific!
I bet your parents will be proud to see the job you did on this.
That's an interesting point of view.
You're really going to town.
You've got it now.
Nice going.
You make it looks so easy.

Fry, E., Fountoukidis, D., & Polk, J. (2006). *The new reading teacher's book of lists (5th ed.).* San Francisco, CA: Jossey-Bass.

Differentiation/Inclusion Resources

Assessment Tools, < www.bcps.org/offices/lis/models/tips/assess_tools.html_>

Children's Books About Disabilities listed by age group or grade level,<http://ericec.org/fact/kidbooks.html>.

CPI is the standard setting provider of behavior management training that equips employees to have an immediate, tangible, and lasting positive impact on the people and organizations they serve. The site includes practical skills, strategies, and training, < http://www.crisisprevention.com>.

Learning Disabilities Online is a Web site dedicated to providing information about learning disabilities to parents, students, and educational professionals, <http://ldonline.org/>.

Office of Assistive Technology for Baltimore County Public Schools,
<www.bcps.org/offices/assistech/default.html>

The Association for Supervision and Curriculum Development offers an abundance of resource materials related to addressing the needs of diverse learners. Visit the ASCD Reading Room for excerpts from many current books, journals, and related materials, <www.ascd.org>.

The Council for Exceptional Children is the largest international professional organization dedicated to improving the educational success of individuals with disabilities or gifts and talents. The site provides information on current special education topics, evidence-based practices, instructional strategies, and more, < www.cec.sped.org>.

The Educational Resources Information Center (ERIC). The ERIC Clearinghouse on Disabilities and Gifted Education (ERIC EC) is part of the National Library of Education (NLE), Office of Educational Research and Improvement (OERI), U.S. Department of Education. ERIC EC is operated by The Council for Exceptional Children (CEC). ERIC EC provides information on the education of individuals with disabilities as well as those who are gifted. Inclusion of information is not an endorsement of viewpoints, reports, products, or services, <http://ericec.org>.

The International Reading Association is a professional membership organization dedicated to promoting high levels of literacy for all by improving the quality of reading instruction, disseminating research and information about reading, and encouraging a lifetime reading habit, <www.reading.org>.

The Learning Disabilities Association of America is the largest non-profit volunteer organization advocating for individuals with learning disabilities. The site includes information for parents, teachers, professionals, and current research, < http://www.ldanatl.org>.

The Maryland Coalition for Inclusive Education (MCIE) is a non-profit organization dedicated to the inclusion of students with disabilities in their neighborhood schools. Founded in 1988, MCIE provides a variety of services to families, schools, and the general community, <http://www.mcie.org>

The National Academy of Sciences (NAS) is a private, non-profit, self-perpetuating society of distinguished scholars engaged in scientific and engineering research dedicated to the furtherance of science and technology and to their use for the general welfare, <www4.nationalacademies.org/nas/nashome.nsf >.

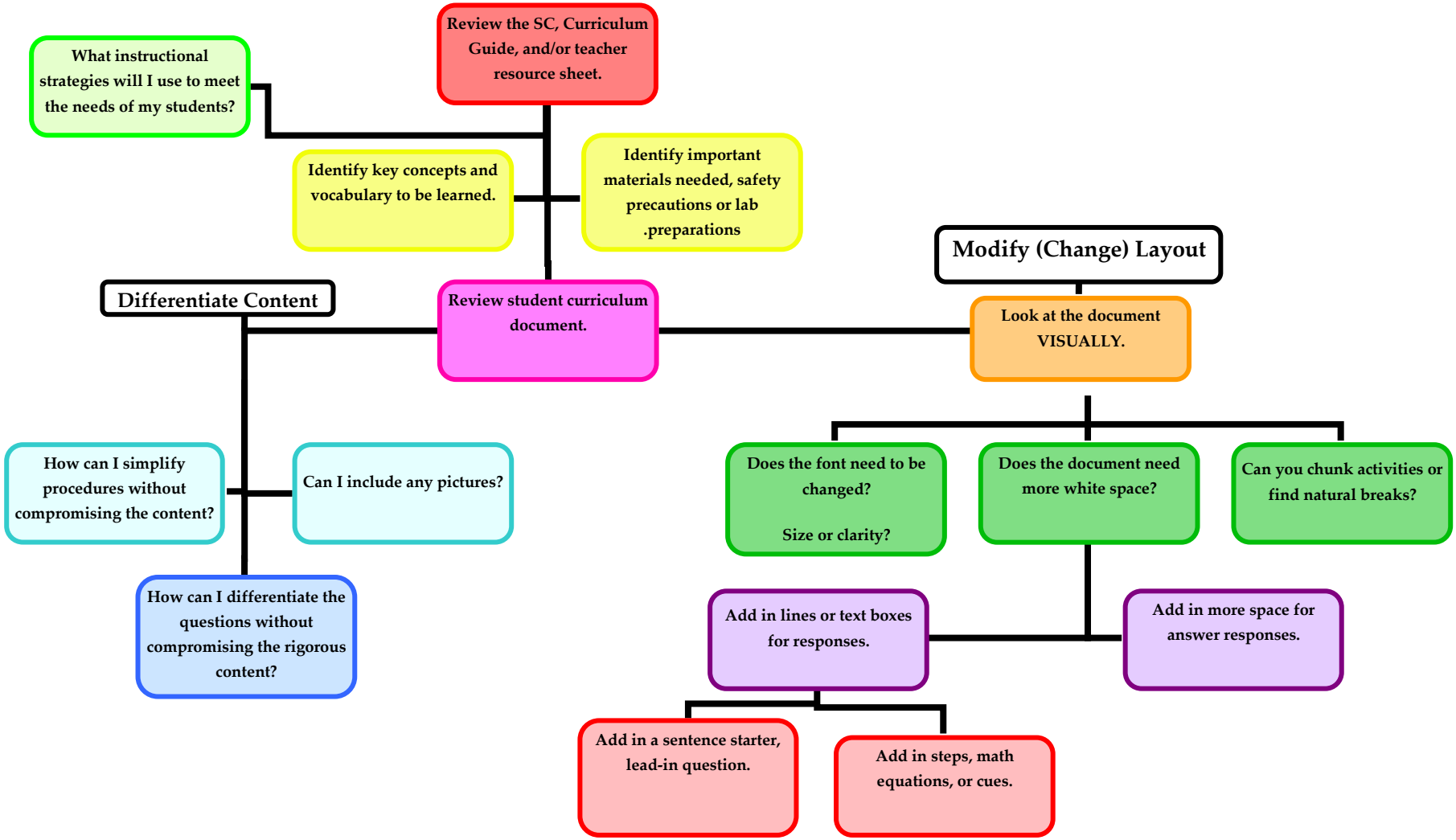
The National Council of Teachers of Mathematics' goal is to provide the vision and leadership necessary to ensure a mathematics education of the highest quality for all students. NCTM provides guidelines for excellence in mathematics education and issues a call for all students to engage in more challenging mathematics, <www.nctm.org/standards/>.

The Parents' Place of Maryland is a non-profit, family-centered organization serving the parents of children with disabilities throughout Maryland, regardless of the nature of their child's disability or the age of their child, < http://www.ppmd.org>

The RTI Network is dedicated to the effective implementation of Response to Intervention to ensure every child has access to quality instruction. The network advocates that struggling students including those with learning disabilities, are identified early and receive the necessary supports to be successful, <www.rtinetwork.org>.

Wrightslaw provides accurate, reliable information about special education law, education law, and advocacy for children with disabilities, <www.wrightslaw.com>.

Modifying Curriculum Documents



Office of Science J.Lavin 2009

Universal Design for Learning-Quick Reference

Universal Design for Learning Guidelines

I. Representation

Use multiple means of representation

1. Provide options for perception

- Options that customize the display of information
- Options that provide alternatives for auditory information
- Options that provide alternatives for visual information

2. Provide options for language and symbols

- Options that define vocabulary and symbols
- Options that clarify syntax and structure
- Options for decoding text or mathematical notation
- Options that promote cross-linguistic understanding
- Options that illustrate key concepts non-linguistically

3. Provide options for comprehension

- Options that provide or activate background knowledge
- Options that highlight critical features, big ideas, and relationships
- Options that guide information processing
- Options that support memory and transfer

II. Expression

Use multiple means of expression

4. Provide options for physical action

- Options in the mode of physical response
- Options in the means of navigation
- Options for accessing tools and assistive technologies

5. Provide options for expressive skills and fluency

- Options in the media for communication
- Options in the tools for composition and problem solving
- Options in the scaffolds for practice and performance

6. Provide options for executive functions

- Options that guide effective goal-setting
- Options that support planning and strategy development
- Options that facilitate managing information and resources
- Options that enhance capacity for monitoring progress

III. Engagement

Use multiple means of engagement

7. Provide options for recruiting interest

- Options that increase individual choice and autonomy
- Options that enhance relevance, value, and authenticity
- Options that reduce threats and distractions

8. Provide options for sustaining effort and persistence

- Options that heighten salience of goals and objectives
- Options that vary levels of challenge and support
- Options that foster collaboration and communication
- Options that increase mastery-oriented feedback

9. Provide options for self-regulation

- Options that guide personal goal-setting and expectations
- Options that scaffold coping skills and strategies
- Options that develop self-assessment and reflection

UDL Guidelines – Educator Checklist

I. Provide Multiple Means of Representation:	Your notes
1. Provide options for perception.	
1.1 Customize the display of information.	
1.2 Provide alternatives for auditory information.	
1.3 Provide alternatives for visual information.	
2. Provide options for language and symbols:	
2.1 Define vocabulary and symbols.	
2.2 Clarify syntax and structure.	
2.3 Decode text and mathematical notation.	
2.4 Promote cross-linguistic understanding.	
2.5 Illustrate key concepts non-linguistically.	
3. Provide options for comprehension:	
3.1 Provide or activate background knowledge.	
3.2 Highlight critical features, big ideas, and relationships.	
3.3 Guide information processing.	
3.4 Support memory and transfer.	
II. Provide Multiple Means for Action and Expression:	**Your notes**
4. Provide options for physical actions.	
4.1 Provide varied ways to respond.	
4.2 Provide varied ways to interact with materials.	
4.3 Integrate assistive technologies.	

5. Provide options for expressive skills and fluency.	
5.1 Allow choices of media for communication.	
5.2 Provide appropriate tools for composition and problem solving.	
5.3 Provide ways to scaffold practice and performance.	
6. Provide options for executive functions.	
6.1 Guide effective goal setting.	
6.2 Support planning and strategy development.	
6.3 Facilitate managing information and resources.	
6.4 Enhance capacity for monitoring progress.	
III. **Provide Multiple Means for Engagement:**	Your notes
7. Provide options for recruiting interest.	
7.1 Increase individual choice and autonomy.	
7.2 Enhance relevance, value, and authenticity.	
7.3 Reduce threats and distractions..	
8. Provide options for sustaining effort and persistence.	
8.1 Heighten salience of goals and objectives.	
8.2 Vary levels of challenge and support.	
8.3 Foster collaboration and communication.	
8.4 Increase mastery-oriented feedback.	
9. Provide options for self-regulation.	
9.1 Guide personal goal-setting and expectations	
9.2 Scaffold coping skills and strategies	
9.3 Develop self-assessment and reflection	

Learning Styles and Preferences

Learning Styles | Learning Preferences

Learning Styles

Modality	Descriptors	Learn Best Through the Use of …	Tools
Visual Learners (input)	• Learn by observation. • Can recall what they have seen. • Can follow written or drawn instructions. • Like to read. • Use written notes • Benefit by visualizing, watching TV/video/films.	• Charts, graphs, diagrams, and flow charts. • Sight words. • Flashcards. • Visual similarities and differences. • Pictures and graphics. • Maps. • Silent reading. • Written instructions. • Computer assisted learning.	• MindMeister • Gliffy • TimeToast • SchoolTube • MakeBeliefsComix • Google Sketch-up • Voice Thread • Wordle • ShowBeyond • Vuvox • OneTrue Media • Digital Content • e-books • Glogster.edu • Safari Montage
Auditory Learners (input) Verbal-Linguistic Intelligence	• Prefer listening and taking notes. • Listen for patterns. • Consult peers to ascertain that they have the correct details. • Can recall what they have heard. • Can follow oral directions. • Repeat words aloud for memorization. • Use oral language effectively.	• Discussion, dialogue, debate. • Memorization • Phonics • Oral reading • Hearing anecdotes or stories. • Listening to tapes or CDs . • Cooperative learning groups.	• Podcasts • Digital Content • e-books • Databases • Wiki • Google Docs • Glogster.edu • Voice Thread • Collaborative Projects

Kinesthetic Learners (input)	• Are often physically adept. • Learn through experience and physical activity. • Benefit from demonstration. • Learn from teaching others what they know.	• Playing games • Role-playing • Read body language/gestures. • Mime • Drama • Learn or memorize while moving (pacing, stationary bike, finger or whole body games).	• Safari Live • Yahoo Avatars • MakeBeliefsComix • Glogster.edu • SchoolTube • Animoto • Myths and Legends • Historic Tale Construction Kit • Promethean Flipchart • Pixie • Word • Inspiration • Dabble Board • Classroom Suite
Tactile Learners (input)	• Learn by touching and manipulating objects. • Often learn inductively rather than deductively. • Tend toward psychomotor over abstract thinking. • Prefer personal connections to topics. • Follow directions they have written themselves / that they have rehearsed. • Benefit from demonstrations.	• Learning by doing • "Hands-on" • Creating maps • Building models • Art projects • Using manipulatives • Drawing, designing things • Writing / tracing	• Pixie • Word • Inspiration • Dabble Board • Classroom Suite • Glogster.edu • MakeBeliefsComix • Google Sketch-up • Voice Thread • TimeToast • Wordle • Google Earth • Community Walk • Windows Movie Maker
Active	• Can be impulsive • Risk-takers • Do not prefer lectures. • Prefer groupwork • Tend to be interpersonal. • Not inclined to too much note taking.	• Prefer "doing, discussing, explaining" vs. listening and watching. • Prefer active experimentation. • Like acting and role-playing. • Like team competition.	• Wiki • Google Docs • Voice Thread • Collaborative Projects • Podcasts • ShowBeyond • Vuvox • Flypaper

Reflective	• Prefer to think about concepts quietly before any action. • Learn by thinking. • Like writing. • Tend to be intrapersonal and introspective.	• Tend toward deductive learning. • Prefer reflective observation. • Intrapersonal skills valued. • Journals • Learning logs	• Wiki • Google Docs • Blogs • Databases • Digital Content • e-books
Global Understanding	• Make decisions based on intuition. • Spontaneous and creative; "idea" person. • Often a risk-taker. • Tend to reach conclusions quickly. • Intake information in large chunks rather than details. • Nonlinear thinkers • "See the forest before they see the trees."	• Interpersonal connection important to them. • Stories and anecdotes • See the "whole" rather than in parts. • Highly interesting project and materials • Functional games and activities • Think-pair-share; Praise-question-polish • Teacher feedback; person-to-person communication	• Digital Content • e-books • Databases • Wiki • Google Docs • Voice Thread • Collaborative Projects • Podcasts • ShowBeyond • Vuvox • Google Sketch-up • Voice Thread • TimeToast • Wordle
Analytical Understanding	• Sequential, linear learners. • Prefer information in small chunks, steps. • Can follow the rules for mathematic equations. • Prefer a logical progression. • "See the trees before they see the forest."	• Intrapersonal skills valued. • Journals • Learning logs • Sequentially organized material, timelines, diagrams. • Moving from "part" to the "whole." • Puzzles, logic games.	• Digital Content • e-books • Databases • MindMeister • Gliffy • TimeToast • SchoolTube • Google Earth • Community Walk

Learning Preferences

Field Dependent Definition: [field sensitive] - tends toward concrete: more teacher and group interaction.

Field Independent Definition: tends toward abstract.

Field Dependent Learner

- Experiences in a global fashion, adheres to structures.
- Learns material with social content best.
- Attends best to material relevant to own experience.
- Requires externally defined goals and reinforcements.
- Needs organization provided.
- More affected by criticism.
- Uses observational approach for concept attainment [learns best by using examples].

Field Dependent Teaching Styles

- Prefers teaching situations that allow interaction and discussion with students.
- Uses questions to check on student learning following instruction.
- Uses student-centered activities.
- Viewed by students as teaching facts.
- Provides less feedback, positive feedback.
- Strong in establishing a warm and personal learning environment .

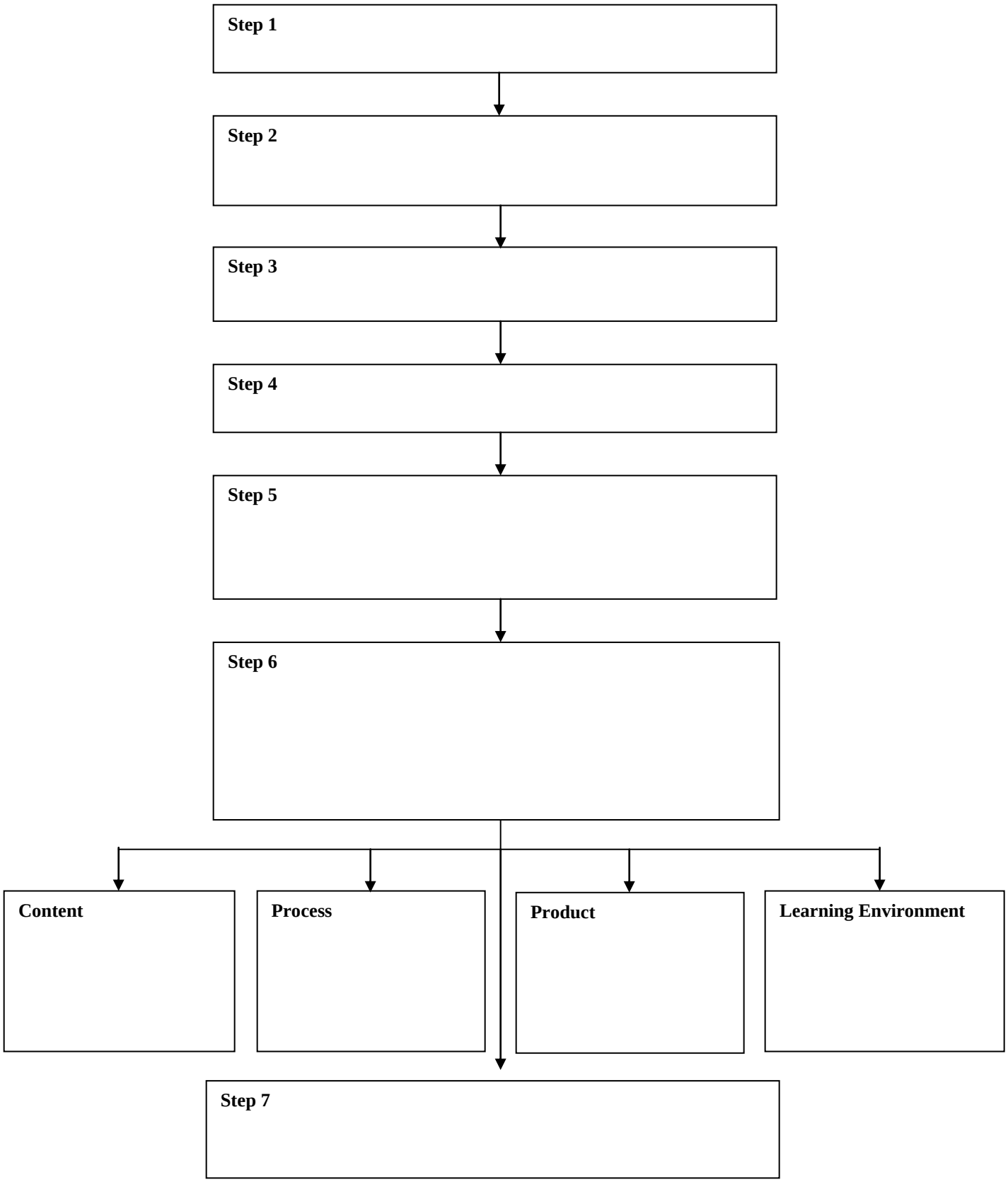
Field Independent Learners

- Perceives analytically.
- Makes specific concept distinctions; little overlap.
- Impersonal orientation.
- May need explicit training in social skills.
- Interested in new concepts for their own sake.
- Has self-defined goals and reinforcement.
- Can self-structure situations.
- Less affected by criticism.
- Uses hypothesis-testing approach to attain concepts.

Field Independent Teaching Styles

- Prefers engaging students by establishing routines in order to work through ideas.
- Uses questions to introduce topics and probe student answers.
- Uses teacher-organized learning situations.
- Viewed by students as encouraging to apply principles.
- Gives corrective feedback using error analysis.
- Strong in organizing and guiding student learning.

Flow Chart for Differentiating a Lesson



Web tools for Differentiated Instruction

BCPS has access to an extensive library of online resources for differentiation through Web 2.0 Tools.

These resources help improve student performance in their efforts for

- **Creating—**Thinking up new ideas, thoughts, and products.
- **Evaluating—**Judging and justifying answers and decisions.
- **Analyzing**—Breaking information into smaller units.
- **Applying**—Using content information for new and existing situations.
- **Understanding**—Explanation of ideas.
- **Remembering**—Recollection of specific ideas and concepts.

For further exploration of Web 2.0 Tools, click on this link to BCPS Office of Library Information Services:

http://bcpslibraryinformationservices.pbworks.com/w/page/12773114/FrontPage

To find out more about online resources and Bloom's Taxonomy, go to Educational Origami:

http://edorigami.wikispaces.com/Bloom's+and+ICT+tools#Bloom's revised taxonomy and Digital Approaches-Digital Approaches-Remembering*

Source: BCPS' Library Information Services. Retrieved from: http://bcpslibraryinformationservices.pbworks.com/w/page/12773114/FrontPage. Educational Origami, Retrieved from: http://edorigami.wikispaces.com/Bloom's+and+ICT+tools.

Differentiating Instruction Through Information Literacy, Technology, and Assistive Technologies

Task	Content	Process	Product
Information Seeking	· Safari Montage · Databases – differentiated resources searchable by keyword and state standards. · Destiny – create an annotated bibliography of books from your school's library in seconds. · Digital Content – ebooks and much more · Podcasts – locate and download to your mp3 player podcasts from the Smithsonian, leading universities and more. · Grokker –view search results as an outline or visual map. · Rollyo –create your own search engine. · MS Word research tool	· NetTrekker – locate educator selected Web sites and use the text-to-speech option to have any Web site read aloud. · Text-to-Speech · Research Models · Intellikeys · Franklin Spellers · Word Prediction · Talking Word Processors · Inspiration – diagram ideas and concepts.	· Podcasting – create a podcast in minutes using Audacity. · Bubbleshare – create, annotate, and share slideshows in minutes. · TimeToast – create, annotate, and share timelines in minutes · Animoto – create and share videos in minutes from your pictures. · ShowBeyond – create and share a Slidecast in three easy steps. · Vuvox – produce interactive media in minutes. · OneTrue Media – create and share a video montage from pictures. · Inspiration · Kidspiration · Text-to-Speech · Clicker 5

Reading	· Databases – differentiated resources searchable by keyword and	· Promethean flipchart – search for and download interactive flipcharts.	· Podcasting – create a podcast in minutes using Audacity.

Form 2A Curriculum Barriers Model Template

Grade: 3 **Teacher:** Mrs. G. **Subject:** Science **Standard:** 6.23—The Lifecycle of Plants
Goal: *Research and present information on a flower.*

Materials and Methods	Student Qualities	Potential Barriers/Missed Opportunities
Printed textbook	*Kevin*—Low vision *Bill*—Loves computer graphics *Brian*—Limited English	Difficulty seeing small text Textbook does not tap into this interest and skill Difficulty decoding and understanding word meaning
Lecture/whole class presentation	*Jose*—Limited English *Helen*—Home problems *Kiwa*—Loses focus, dreams	Difficulty comprehending meaning May not engage with material, distracted from listening May not engage with material, distracted from listening
Library research	*Brian*—Organizational problems *Kiwa*—Trouble with key concepts	May have trouble keeping track of what he is learning May not be able to abstract the important content for project
Written report	*Sarita*—Poor writing mechanics *Jake*—Talented at drawing	Difficulty expressing her ideas effectively Does not tap into Jake's drawing skill
Flower drawing	*Phillip*—Fine motor problems	Drawing is physically arduous—may not engage him
Oral report on flower	*Jorge*—Saxophone player *Brian*—Easily discouraged	Does not tap into Jorge's musical talent May intimidate Brian
Independent project	*James*—Strong leadership and collaboration skills *Helen*—Distracted, personal concerns *Elizabeth*—Deep knowledge of plants	Context won't draw on his leadership and collaboration skills Helen could have difficulty working alone

Co-Teaching Observation Checklist

General Education Teacher _____ Grade Level _____

Special Education Teacher _____ Date of Observation _____

Subject(s) Observed _____ Time _____

Observer _____ Position _____

Single Gender Class: Male_____ Female_____

Rating Scale: E= Evident NE= Not evident NA= Not applicable

Lesson presentation, instruction and instructional materials	E	NE	Comment(s)
Learning expectations, directions, and procedures are clearly defined for students.			
Research-based instructional strategies are utilized in the classroom.			
Lessons are differentiated in content, process, product, and/or learning environment.			
Graphic organizers/study/note–taking guides appropriate to lesson and content are used.			
Technology is integrated and age– appropriate.			
Students are engaged in respectful work (challenging, meaningful, engaging, and appropriate for facilitating learning acquisition).			
Students are participating in lesson activities by both answering and asking questions.			
Both teachers' voices are heard in the teaching/learning process.			

Instruction looks significantly different with two adults present in the classroom.			
Lessons are presented in a variety of ways.			
Both adults interject ideas for clarification of lesson content.			
A variety of instructional materials appropriate to learners' age/grade are used to engage and motivate learners.			
Both teachers provide feedback to students to guide their learning.			
Teachers facilitate smooth transitions from activity to activity within and between lessons.			
A variety of grouping patterns are used. Circle any/all that apply: Pairs Small Groups Hetro/Homogeneous Whole Class Learning Styles Multi-levels Independent Learning			
Co-Teaching Models	**E**	**NE**	**Comment(s)**
Appropriate co-teaching models are used effectively. Circle any/all models observed: One Teach/One Observe One Teach/One Drift (One Circulate) Collaborative/Team/Joint/Complementary Teaching Parallel Teaching Station Teaching			

Supportive Instruction (Use of TA/Parapro)			
Classroom Structure	**E**	**NE**	**Comment(s)**
Both teachers are simultaneously present.			
Both teachers are actively involved in the lesson presentation and assessment process.			
Both adults move around the classroom assisting and monitoring all students' learning.			
Rituals and routines are in place and adhered to by students.			
Inclusive language is used by both teachers in class (us, our, we).			
Teachers utilize nonverbal communication during lesson activities to effectively manage classroom behavior and direct instruction.			
E= Evident NE= Not evident in this observation			
Additional Comments			

Teacher:_____Date:_____

Observer:_____Title_____Date:_____

Created by CSRA RESA and East GLRS, May 2006. Revised April, 2007-Use by Permission Only.

Collaboration for Co-Teaching Rating Scale

Respond to each question below by circling the number that best describes your viewpoint:

1. Never 2. Rarely 3. Sometimes 4. Usually 5. Always

1.	I understand the curriculum standards with respect to the content area in the co-taught classroom.	1 2 3 4 5
2.	I often present lessons in the co-taught classroom.	1 2 3 4 5
3.	Classroom rules and routines have been jointly developed.	1 2 3 4 5
4.	Humor is often used in the classroom.	1 2 3 4 5
5.	I am familiar with the methods and materials with respect to this content area.	1 2 3 4 5
6.	Modifications of goals for students with special needs are incorporated into this class.	1 2 3 4 5
7.	The “chalk” passes freely between my co-teaching partner and me.	1 2 3 4 5
8.	Test modifications are commonplace.	1 2 3 4 5
9.	Communication with my co-teaching partner is open and honest.	1 2 3 4 5
10.	I feel confident in my knowledge of the curriculum content.	1 2 3 4 5
11.	Time is allotted (or found) for common planning.	1 2 3 4 5
12.	Students accept both teachers as equal partners in the learning process.	1 2 3 4 5

13. We share the responsibility of behavior management. 1 2 3 4 5

14. I can easily read the nonverbal cues of my co-teaching partner. 1 2 3 4 5

15. We can discuss tough issues – that is, topics on which we disagree. 1 2 3 4 5

16. We can raise topics of potential disagreement as soon as they are noted; we do not fret about whether it is safe to do so. 1 2 3 4 5

17. We want to experiment to make co-teaching succeed, even if we did not volunteer for this assignment. 1 2 3 4 5

18. We both are accountable for student outcomes. 1 2 3 4 5

19. We actively seek ways to draw out each other's strengths while covering for each other's weaknesses. 1 2 3 4 5

20. Our commitment to co-teaching and trust of each other is growing. 1 2 3 4 5

Grade Level: *Circle One*: MIDDLE SCHOOL HIGH SCHOOL

Position: *Circle One*: GENERAL EDUCATOR SPECIAL EDUCATOR

Compliments of 2TeachLLC.com, Murawski, 2007

Co-Teaching Lesson Plan

Subject: _____ Date: _____

Objective:_____

Lesson	Co-teaching Approach (can select more than one)	Time	General Education Teacher	Special Education Teacher	Considerations may include differentiation, accommodations, and student-specific needs
Beginning: (may include: opening, warm– up, review, anticipatory set)	☐ **One Teach, One Support** ☐ **Parallel** ☐ **Alternative** ☐ **Station** ☐ **Team**				
Middle: (may include: instruction, checking for understanding, independent or group practice)	☐ **One Teach, One Support** ☐ **Parallel** ☐ **Alternative** ☐ **Station** ☐ **Team**				

End: (may include: closing, assessments, extension of the lesson)	□ **One Teach, One Support** □ **Parallel** □ **Alternative** □ **Station** □ **Team**				

Maryland's Co-Teaching Framework

The purpose of the Co-Teaching Framework is to specify co-teaching components for enhanced instructional practices and greater access to the general education curriculum for students with disabilities. This framework provides guidance and consistency of quality implementation for local school systems using co-teaching as a service delivery model for improving achievement of students with disabilities. An extended use of this tool would be to embed the essential co-teaching components into strategic planning at the district and school levels to address the needs of all learners.

This framework was developed as a component of one of the Solutions incorporated in Maryland's State Improvement Grant (MSIG III) to improve outcomes for children and youth with disabilities and their families. The Grant is funded by the Office of Special Education Programs in the U.S. Department of Education. The Solution's purpose is to develop a Maryland Co-Teaching Network to support collaboration for capacity building of administrators and teachers, special education site content development, and high quality professional development related to the Maryland framework for co-teaching and best practices.

Vision Statement: General and special educators have gained capacity to regularly collaborate and have joint accountability and ownership for planning, delivering instruction, and assessment for the success of all students in the general education curriculum resulting in systemic change that is sustainable.

Mission statement: To improve achievement of students with disabilities by supporting the professional growth of administrators and teachers by:

- Giving teachers high quality tools and meaningful and engaging learning experiences to implement effective evidence-based co-teaching practices resulting in improved student achievement and more inclusive opportunities for students with disabilities.

- Giving system leadership and school-based administrators high quality tools and meaningful and engaging learning experiences to support and monitor effective evidence-based co-teaching practices resulting in improved student achievement and more inclusive opportunities for students with disabilities.

- Providing online social networking opportunities and learning communities, for administrators and teachers to engage in dialogue, access resources, and exchange information for professional growth in the Maryland model for co-teaching and collaboration.

- Establishing the Co-Teaching Network as a place to find valuable techniques, strategies, protocols, examples, media to improve co-teaching to increase student academic achievement and the number of students with disabilities in the Least Restrictive Environment (LRE) A. (students participate in general education classes 80% or more of the school day).

Collaborative Development and Implementation Stages of the Co-Teaching Framework

Personnel	Collaborative Development	Collaborative Implementation	Collaborative Monitoring	Collaborative Evaluation
Central Office Administration	–Facilitate the development of a shared systemwide vision that ensures that schools consider co-teaching as a service delivery method to provide more inclusive programming for students with disabilities. –Determine systemwide goals and timelines for co-teaching implementation. –Determine staffing allocations based on the co-teaching model of service delivery. –Consider administrator and teacher skills/knowledge and school readiness when assigning resources (including technology) for co-taught classes. –Provide guidelines for scheduling for efficient and effective staff assignment that include adequate collaborative planning time to co-taught classes. –Plan system professional development for administrators and school-based staff aligned with the Maryland Teacher Professional Development Standards based on assessed needs that is focused, sustained, and research-based related to co-teaching as an instructional delivery model with the clear understanding that Universal Design for Learning and differentiation are expected strategies within the co-taught classroom.	–Assist school-based administrators and school Instructional Leadership Teams in their support of the implementation of co-teaching. –Ensure that schools strategically assign an appropriate proportion of general education students and students with disabilities to co-taught classes (no more than 1/3). –Provide staff focused, sustained, research-based professional development based on assessed needs related to co-teaching, Universal Design for Learning, and differentiation strategies. –Provide staff focused, sustained, research-based professional development specifically related to co-teaching including understanding selecting and implementing the 5 approaches of co-teaching: 1- One Teach-One Assist 2- Station Teaching 3- Parallel Teaching 4- Alternative Teaching 5- Team Teaching based upon Friend & Cook, 2007*	–Monitor and provide tools to support Instructional Leadership Teams in monitoring the alignment of curriculum, instruction, and assessment in co-taught classrooms. –Review LRE data to consider if co-teaching as a service delivery method should be expanded to provide more inclusive programming for students with disabilities. --Support co-teaching through: --Prioritizing collaborative planning time --Ensuring class schedules accommodate co-planning and co-teaching --Ensuring appropriate student grouping --Ensuring parent communication –Ensure that schools use student data and data collected during the observation process to	–Assess the impact on co-teaching implementation of factors including adequate collaborative planning time, appropriate scheduling of staff and students, and focused, sustained, research-based professional development –Assess the impact of system and schoolwide co-teaching on student achievement using multiple sources of student-achievement data –Evaluate the effectiveness of the professional development provided in alignment with the MD Teacher Professional Development Standards

Central Office Administration	–Train administrators and school-based staff in the use of the co-teaching tool for monitoring appropriate implementation. –Specify measurable outcomes, establish baseline data of current system-wide classroom practice in co-teaching, and interim benchmarks related to co-teaching implementation and student achievement to be collected. –Develop procedures for the periodic collaborative review of the systemwide co-teaching vision with resources aligned to support the vision.	–Procedures in place for the periodic, collaborative review of the systemwide co-teaching vision and allocation of resources aligned to support the vision and address barriers to implementation. –Implement centralized data collection procedures for established outcomes. –Ensure that schools use technology and multiple sources of data to improve classroom instruction. Student data will be used for ongoing root cause analysis of student performance that drives instructional decision making. –Provide sufficient technology for integration in instruction, progress monitoring and assessment.	make recommendations for the improvement of instruction in co-taught classrooms. – Conduct classroom fidelity checks for implementation of co-teaching, Universal Design for Learning, and differentiation. –Plan for ongoing support to ensure sustainability.	– Evaluate school and systemwide data related to co-teaching as an instructional model and disseminate results related to the specified goals and interim benchmarks with appropriate stakeholders.

Personnel	Collaborative Development	Collaborative Implementation	Collaborative Monitoring	Collaborative Evaluation
School-based Administration	–Facilitate the development of a shared schoolwide vision that ensures that schools consider co-teaching as a service delivery method to provide more inclusive programming for students with disabilities. –Determine school-based goals and timelines for co-teaching implementation. –Make staffing decisions based on co-teaching model of service delivery including overall size of classroom and proportion of students with disabilities. –Ensure scheduling allows for efficient and effective staff assignments to co-taught classrooms. –Consider staff skills/knowledge and readiness when assigning teachers to co-taught classes. –Consider student strengths and needs when assigning students to co-taught classes. –Specify baseline data and interim benchmarks for schoolwide co-teaching implementation and student achievement prior to initiation of co-teaching. –Create opportunities for leadership, collaborative decision-making, and co-planning.	–Assist school-based Instructional Leadership Team in their support of the implementation of school-wide co-teaching. –Ensure procedures are in place for the periodic, collaborative review of the schoolwide co-teaching vision with resources aligned to support the vision and address barriers to implementation. –Develop schedule to include co-teaching as a service delivery model. –Strategically assign an appropriate proportion of general education students and students with disabilities to co-taught classes (no more than 30% with a balance of students with behavioral and academic issues). –Implement school-based data collection procedures for established outcomes. –Use technology and multiple sources of data to improve classroom instruction.	–Utilize the co-teaching monitoring and support tools with the Instructional Leadership Team to monitor the alignment of curriculum, instruction, and assessment in co-taught classrooms. –Use of student data and data collected during the observation process to make recommendations for the improvement of instruction in co-taught classrooms –Conduct classroom fidelity checks for appropriate implementation of co-teaching, Universal Design for Learning, and differentiation strategies –Support co-teaching through: *Prioritizing collaborative planning time. *Ensuring class schedules accommodate co-planning and co-teaching. *Ensuring appropriate student grouping. *Ensuring parent communication.	–Assess the impact on co-teaching implementation of factors including adequate collaborative planning time, appropriate scheduling of staff and students, and focused, sustained, research-based professional development. –Assess the impact of system and schoolwide co-teaching on student achievement using multiple sources of student-achievement data. –Evaluate school and review systemwide data related to co-teaching as an instructional model and disseminate results related to the specified goals and interim benchmarks with appropriate stakeholders.

School-based Administration	–Plan schoolwide professional development based on assessed needs that is focused, sustained, research-based professional development related to co-teaching as an instructional delivery model that is aligned with the Maryland Teacher Professional Development Standards. –Plan focused, sustained, research-based professional development related to co-teaching, Universal Design for Learning, and differentiation to establish teacher baseline data. –Review with staff the co-teaching tool and any other tools for monitoring co-teaching for appropriate implementation. –Review school LRE data to consider co-teaching as a service delivery method to provide more inclusive programming for students with disabilities.	–Provide staff with focused, sustained, research-based professional development based upon assessed needs related to co-teaching including understanding, selecting, and implementing the (*) 5 approaches of co-teaching: 1- One Teach-One Assist 2- Station Teaching 3- Parallel Teaching 4- Alternative Teaching 5- Team Teaching –Provide staff with focused, sustained, research-based professional development based on assessed needs related to Universal Design for Learning, and differentiation strategies.	–Review LRE data to consider if co-teaching as a service delivery method should be expanded to provide more inclusive programming for students with disabilities. –Plan for ongoing support to ensure sustainability.	–Evaluate the effectiveness of the professional development provided in alignment with the MD Teacher PD standards.

Personnel	Collaborative Development	Collaborative Implementation	Collaborative Monitoring	Collaborative Evaluation
General and Special Educators	–Share the vision and commitment to co-teaching with colleagues. –Engage in collaborative planning with parity. –Identify clear roles and responsibilities. –Self assess professional development needs related to co-teaching, Universal Design for Learning, and differentiation to establish teacher baseline data. –Actively participate in professional development related to; the 5 approaches of co-teaching: 1- One Teach-One Assist 2- Parallel Teaching 3- Station Teaching 4- Alternative Teaching 5- Team Teaching and other co-teaching practices, Universal Design for Learning, and differentiation. –Establish mutually agreed upon classroom procedures. –Design lessons and assessments using Universal Design for Learning and differentiation strategies.	–Participate in professional development regarding selecting appropriate approaches to co-teaching and apply to classroom instruction. –Deliver co-taught lessons and assessments incorporating Universal Design for Learning and differentiation strategies. –Ensure instruction and assessments provide access to general education curriculum with appropriate accommodations to meet individual student needs. –Implement data collection procedures for established outcomes. –Address barriers to implementation. –Demonstrate shared accountability for planning, instruction, assessment, and progress of all students that exhibits shared understandings of student instructional needs. –Document shared communications with parents –Integrate technology in instruction, progress monitoring, and assessment processes.	–Complete the co-teaching tool for appropriate implementation of co-teaching, and review practices for Universal Design for Learning and differentiation strategies. –Conduct ongoing monitoring of student performance. –Self-assess periodically the parity in planning and responsibilities. –Determine if intended outcomes have been achieved for lessons implemented. –Implement adjustments based upon student performance and needs.	–Analyze student data collected regarding established outcomes, goals, and interim benchmarks. –Assess impact on instructional delivery and student achievement. –Share results with appropriate stakeholders.