Resource Packet for Parents of Gifted Youth

The materials in this packet have been compiled and consolidated from a number of sources gathered during my 30+ years in the field of gifted education as an educator, parent, and a staff member of a non-profit education association.

Their purpose is to provide parents and advocates with useful resources that can assist them in understanding and meeting the unique needs of gifted and talented youth. They are organized as noted below:

Understanding the Gifted

- 1. What is giftedness?
- 2. Common characteristics of the gifted
- 3. Differences among the gifted
- 4. Potential problems caused by gifted behaviors
- 5. Asynchronous development, overexcitabilities, and "spiritedness"
- 6. Effective parenting behaviors

Advocacy for the Gifted

- 7. Myths about gifted students
- 8. Attitudes and behaviors for effective advocacy
- 9. Giftedness as an educational diagnosis
- 10. Effective advocacy for your gifted child
- 11. Establishing parent support groups
- 12. Understanding the "chain of command"
- 13. Options outside of public schooling

Texas Law and Policy Regarding Gifted Education in Public Schools

- 14. Texas State Plan for the Education of Gifted/Talented Students
- 15. State goal for services for gifted/talented students
- 16. House Bill 5 and evaluation of services for the gifted
- 17. Understanding best practices

Additional Resources

- 18. TAGT Legacy Book Award Winners for Parents
- 19. Other recommended books
- 20. Recommended websites and resources

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#1 - What Is Giftedness?

Texas Definition of a Gifted and Talented Student

The Texas State Plan for the Education of Gifted/Talented Students states:

"Gifted and talented student" means a child or youth who performs at or shows the potential for performing at a remarkably high level of accomplishment when compared to others of the same age, experience, or environment and who:

- (1) exhibits high performance capability in an intellectual, creative, or artistic area;
- (2) possesses an unusual capacity for leadership; or
- (3) excels in a specific academic field.

Other Definitions

There are a number of other definitions of giftedness. Here is a sampling of the best-known ones:

The Federal Definition: From No Child Left Behind

"The term 'gifted and talented,' when used with respect to students, children, or youth, means students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities."

Dr. Joseph Renzulli: The Three-Ring Conception of Giftedness

The Three-Ring Conception of Giftedness states that no single criterion can be used to determine giftedness, but rather that persons who have achieved recognition because of their unique accomplishments and creative contributions possess three interlocking clusters of traits. They are above average ability, task commitment, and creativity. Dr. Renzulli raises the question as to whether people are gifted or whether they exhibit gifted behaviors.

New Definition from the National Association for Gifted Children

NAGC recently altered its definition of giftedness to broaden its scope. Their definition states: "Gifted individuals are those who demonstrate outstanding levels of aptitude (an exceptional ability to reason and learn) or competence (documented performance or achievement in top 10% or rarer) in one or more domains. Domains include any structured area of activity with its own symbol system (e.g., mathematics, music, language) and/or set of sensorimotor skills (e.g., painting, dance, sports)."

The Columbus Group: A Developmental Perspective

"Giftedness is asynchronous development, in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm. This asynchrony increases with higher intellectual capacity. The uniqueness of the gifted renders them particularly vulnerable and requires modifications in parenting, teaching, and counseling in order for them to develop optimally."

Annemarie Roeper's Definition

"Giftedness is a greater awareness, a greater sensitivity, and a greater ability to understand and transform perceptions into intellectual and emotional experiences."

#2 - Common Characteristics of the Gifted

Gifted/talented individuals frequently possess one or more of the following characteristics:

1. Verbal Skills

- Extensive vocabulary
- Uses words easily and accurately
- Wide range of facts and information

2. Abstract Thinking

- Interest in problem-solving
- Looks at big ideas/big picture
- Enjoys intellectual activity

3. Intellectual Curiosity

- Interest in many topics
- Often deep interest in a few selected topics
- Enjoys complexity

4. Intense Concentration

- Retains information easily
- Long attention span
- Does not like to be interrupted when learning

5. Independent and Goal-Directed

- Strong individual interests, often from an early age
- Persistently pursues chosen goals
- Willing to work alone

6. Critical Thinking

- Self-critical
- Skeptical
- Skilled at analyzing strengths and weaknesses

7. Sensitive and Intuitive

- High level of awareness
- Keenly observant
- Feels strong emotions

8. Potential for Creativity

- Inventive
- Seeks new ways of doing things
- Likes to "play" with ideas

9. Versatile

- Diversity of interests and abilities
- Many hobbies
- Often proficient in music, drawing, or other arts

One of the most significant differences noted is that gifted learners strongly prefer the company of intellectual or artistic peers, regardless of age or grade level. When confined to solely age or grade level peers, they often feel bored or alone in their thinking.

#3 – Differences Among the Gifted

Even though there are many common characteristics that are traditionally observed among the gifted, there are also distinctive differences among this population. First of all, it is rare that a gifted person is gifted in every endeavor. A person may be highly gifted in one area and average or even below average in another. Just as significantly, there is a range of giftedness even among gifted people. Below are two views of how these differences may appear:

Dr. Deborah Ruf: Five Levels of Giftedness

Dr. Ruf observes that the range within the group of children called gifted is quite large. It can run from a beginning level of gifted traits where the child is somewhat ahead of others to a situation where the child is more than five or six years ahead of peers. Characteristics of the five levels of giftedness she has developed are summarized below:

Level One: Generally, the top 10% or more of a group may fall into this category; some may not even qualify for gifted services in a school community.

Level Two: Generally in the top 2% on standardized tests; master most kindergarten skills by age 4; usually 1-3 such students in a typical classroom

Level Three: In the top 2% on standardized tests; read and calculate very easily before entering school. Usually the top student in a class and the top one or two in the entire grade level.

Level Four: In the top 1% on standardized tests; may be considered profoundly gifted. 3+ years ahead in academic skills; thinks philosophically at young age. Rarely more than a few per school.

Level Five: In the top 1% on standardized tests; considered profoundly gifted. 5+ years ahead in academic skills, with mastery of high schools often demonstrated before age 10.

Dr. George Betts and Dr. Maureen Neihart: Profiles of the Gifted

Dr. Betts and Dr. Neihart developed a theoretical model to profile the gifted and talented that differentiates gifted individuals on the basis of behavior, feelings, and needs. Their research defines six different profiles of gifted individuals. They are:

Type I - The "Successful" makes up as much as 90% of the gifted. They learn well and are able to score high on achievement tests and tests of intelligence.

Type II - The "Creative" are the divergently gifted. They typically possess a high degree of creativity and may appear to be obstinate, tactless, or sarcastic.

Type III - The "Underground" are most commonly middle school females but refers to all may also want to hide their giftedness for social or behavioral reasons.

Type IV - The "At-Risk" are angry with adults (and themselves) because the system has not met their needs and they feel rejected. They are frequently gifted children who were identified very late, perhaps not until high school.

Type V - The "Twice/Multi-Exceptional" are gifted children who are physically or emotionally handicapped in some way, or who have learning disabilities. Type V students often do not exhibit behaviors that schools look for in the gifted.

Type VI - The "Autonomous Learners" are independent and self-directed. They feel secure designing their own educational and personal goals.

#4 - Potential Problems Caused by Gifted Behaviors

Jeanne Delp was one of the first educators to write about the "demands" of giftedness. She wrote that a high level intelligence makes certain demands upon the gifted child, and that certain behaviors may result from these demands.

Among the most notable demands a gifted child might feel are:

- 1. To crave knowledge and feel the need to devour a subject
- 2. To place high standards on oneself
- 3. To be creative, with a unique approach to an assignment
- 4. To be serious-minded
- 5. To become totally absorbed in a task
- 6. To explore interests at a maturity beyond one's age
- 7. To seek out mental peers and have one's intelligence responded to

These demands may lead to certain behaviors, such as:

- 1. To concentrate for extended periods of time
- 2. To be truthful and ethical
- 3. To work alone or have time to think, as deemed necessary
- 4. To seek order, structure, and consistency
- 5. To look beyond the simple and obvious
- 6. To seek cause-and-effect relationships
- 7. To set one's own learning pace, whether fast or slow

Some of these behaviors may have negative consequences, such as:

- 1. To stubbornly continue working on a task when it is "time" to move to another task
- 2. To express ideas and reactions, and be seen as argumentative
- 3. To actively resist routines and drills, especially of materials already mastered
- 4. To be impatient with a sloppy or disorganized thinking by fellow students or teachers
- 5. To evaluative other people and their ideas critically

Dr. Barbara Clark and Dr. May Seagoe also wrote about potential problems associated with characteristic strengths of the gifted. They include the ideas that:

- 1. Intrinsically motivated individuals may be seen as strong-willed and stubborn
- 2. Belief in truth and fair play can cause excessive worries about humanitarian concerns
- 3. Those who organize things and people are often seen as bossy
- 4. High expectations of self and others can lead to perfectionism or even depression
- 5. Creating new ways of doing things may be seen as disruptive and/or out of step
- 6. Sensitivity and empathy leave one vulnerable to criticism or peer rejection
- 7. Those who possess a large vocabulary may use words to manipulate
- 8. High energy and alertness can be viewed as hyperactivity
- 9. Humor can be misunderstood; the individual is seen as a class clown or attention-seeker
- 10. Inquisitiveness can lead to what others view as embarrassing questions

#5 - Asynchronous Development, Overexcitabilities, and "Spiritedness"

Asynchronous Development

Gifted individuals are especially prone to <u>asynchronous development</u>; in fact, it is the defining characteristic of the gifted as used by the Columbus Group (see article #1 on "What Is Giftedness?"). Asynchronous development is simply defined as an uneven rate of progress in a child's intellectual, physical, and emotional development. In average children, these all progress at about the same rate.

An example would be a 6-year-old boy who can read at a junior high school level and do multi-digit multiplication and division (intellectually advanced), throws temper tantrums when frustrated (emotionally average), and is small and uncoordinated (physically average or below average).

A second example would be a 12-year-old girl who can read at the high school level (intellectually advanced), is a potential Olympic-caliber gymnast (physically advanced) and is uninterested and unaware of people and events outside the school sphere (emotionally average).

Advanced intellectual development can lead parents and educators to expect more advanced behavior from a gifted child. Although the 6-year-old boy can do the math homework of his 14-year old sister, his temper tantrum is seen as immature, instead of normal for his age. Being years ahead of the norm intellectually does not always equal being years ahead emotionally or socially. Advanced intellectual ability simply does not necessarily enable a child to manage emotions any better than any other child.

Overexcitabilities

The concept of **overexcitabilities** comes from the work of Kazimierz Dabrowski, a Polish psychiatrist and psychologist. His **Theory of Positive Disintegration** entailed the beliefs that conflict and inner suffering were necessary for advanced development, and that some individuals are predisposed to experience life more intensely and this predisposes them to frequent and severe crisis.

Dabrowski identified five areas of overexcitabilities; they are:

- 1. **Psychomotor** active and energetic, a love of movement for its own sake, a surplus of energy demonstrated by rapid speech, intense physical activity, and a need for action
- 2. **Sensual** heightened sensual pleasure or displeasure from the five senses sight, smell, touch, taste, and hearing
- 3. **Intellectual** intensely curious, avid readers, keen observers, able to concentrate, and engage in prolonged intellectual effort; they want to understand things
- 4. **Imaginational** frequent use of images and metaphors, facility for invention, fantasy, and visualization; prefer creativity and imagination to academic learning
- 5. **Emotional** intense feelings, identification with others' feelings, compassion, empathy, and sensitivity in relationships; strong emotional attachments to people, places, and things

An overexcitability in one or more of these areas can cause an abundance and diversity of feeling, thought, imagery, and sensation that Dabrowski felt would lead to dissonance, conflict, and tension, but at the same time enrich, expand, and intensify the individual's mental development.

It is important to emphasize that not all gifted or highly gifted individuals have overexcitabilities. A person may possess none, one, or many of these. Research has shown there are more people with overexcitabilities in the gifted population than in the average population.

#5 - Asynchronous Development, Overexcitabilities, and "Spiritedness" (continued)

Spirited Children

Dr. Stanley Turecki did research on what he termed "temperamentally difficult children" and wrote of it in his book, *The Difficult Child*. Author Mary Sheedy Kurcinka labeled those who exhibit these traits as "spirited children." While neither wrote about these traits directly in relation to the gifted, there are many common characteristics. The key is to understand why these children do what they do, and to recognize signs when they are pushed beyond their temperamental ability to cope.

Kurcinka notes nine traits of "spirited children":

- 1. **Intensity** when they are happy, they are always smiling, laughing; when sad or upset, they are desolate, inconsolable. Intense children are easily overstimulated and lose impulse control.
- 2. **Persistence –** in a positive vein, they can stick with something for a long time, but also have the negative kind, stubbornness. They don't like to take "no" for an answer.
- 3. **Sensitivity** they are physically sensitive to environmental factors. Lights can't be too bright, noises too loud, clothing too tight or scratchy; very similar to sensual overexcitability.
- 4. **Perceptiveness –** perceptive kids notice everything around them, but it can be a distraction. They may be accused of not listening, when their attention is simply focused elsewhere.
- 5. **Adaptability –** they struggle with transitions, surprises, changes in schedule or routine. While seen as picky or demanding, they just doesn't adjust to change.
- 6. **Regularity** spirited kids often have irregular body rhythms; their eating, sleeping and elimination patterns are not regular.
- 7. **Energy** high activity level with limitless energy, they are constantly moving and thinking, from morning until night; very similar to psychomotor overexcitability.
- 8. **First Reaction –** a spirited kid in a new situation may become shy and clingy and need time to warm up before reaching a comfort level.
- 9. **Mood** some spirited kids are positive, others serious, analytical and/or cranky. They feel things deeply; similar to emotional overexcitability.

Related Resources

<u>Hoagies Gifted Education Page</u> has a large number of links on overexcitabilities and Dabrowski's Theory of Positive Disintegration, and also good links related to <u>sensitivities</u>.

#6 – Effective Parenting Behaviors

Jeanne Delp wrote that a gifted child does things a little earlier, a little better, a little faster, and maybe a little differently from most other children. Here are helpful hints for parents of the gifted:

- 1. Your gifted child is a child first and gifted second. A 5-year old may be able to solve advanced mathematical problems but has only lived five years. Behavior appropriate of a 5-year old should be expected.
- 2. **Don't compare your gifted child with other children.** That places a responsibility to live up to that image all the time and can be damaging to both children. All children are unique and special in their own way.
- 3. *Listen to your gifted child.* The question asked may be important; if ignored, the curiosity to ask may disappear over time.
- 4. *Expose your gifted child to the bigger world.* Show it to your gifted child in the form of books, interesting people, museums, libraries, and lots of conversation. It doesn't have to cost money to be worthwhile.
- 5. *Let your gifted child specialize early if desired.* There are fringe benefits to living with dinosaurs at an early age—learning to research, uncovering information, keeping notes, and understanding catalogs of information.
- 6. *Allow time to daydream.* A child doesn't have to be gainfully occupied every waking moment. If you want to encourage creativity, it cannot be scheduled.
- 7. *Praise your gifted child for honest effort.* If an experiment does not work out as hoped, you can praise the effort; appropriate risk-taking can be encouraged and supported.
- 8. *Discipline is necessary for harmonious family life.* Giftedness is no excuse for unacceptable behavior at any time.

Parents can guide their gifted child by helping him/her:

- <u>experience failure</u> as well as success and learning how to deal with both.
- <u>face the natural consequences</u> of his/her actions and decisions, when possible.
- <u>develop self-discipline</u> by taking responsibility for his/her own actions.
- <u>change unproductive boredom into productive behavior;</u> don't accept boredom as an excuse.
- tolerate new ideas and respect curiosity and questioning.
- <u>deal constructively</u> with the approval and disapproval of others.
- <u>find friends</u> with similar interests and needs.
- <u>build a value system</u> so he/she can value other people's ideas in addition to his/her own.

#6 – Effective Parenting Behaviors (continued)

The following material is adapted and condensed from <u>*Tips for Parenting the Gifted Child*</u> by Dr. Edward Amend ©2006 Davidson Institute for Talent Development

On parenting a special needs child:

- Many people do not understand that a gifted child is a special needs child. The needs arise from strengths, making them less visible than the needs of other special needs children.
- Parents need to take care of themselves; they need adult relationships and to have some time to themselves to gain both perspective and peace of mind.

On parent-child relationships:

- Determine when to "push" your child and when to provide support. Balance between pushing the necessities of work in school and fostering the interests shown.
- Value the child. Find outlets for individual passions, whether children's theater, music lessons, chess tournaments, etc. The venue is less important than the outlet.

On peers:

- Finding peers may be difficult for gifted kids, because of their "different-ness" and asynchrony. They may just not fit well with age peers and have different peers for different activities.
- Help your child choose peers carefully and work to foster these relationships.

On siblings:

- Foster cooperation on tasks of mutual benefit to all siblings and/or family members.
- Help children see how behavior affects siblings in positive (and negative) ways.

On discipline:

- Just like their gifted children, parents may be impatient, wanting quick change. Seek progress, not perfection, and keep trying a strategy for 4-6 weeks before reconsidering.
- Look for positive ways to reinforce appropriate behavior. Too many want to punish right away, instead of looking at how to improve behaviors.

On communication:

- Watch how you phrase your statements. Using questions like "Will you make you bed?" could be answered, "No." Don't phrase a request as a question.
- Respectful communication and logical or natural consequences often help, while negative behavior, sarcastic comments and harsh punishments don't.

On homework motivation:

- Work with schools to make homework both relevant and appropriate. Meaningless repetition of material already mastered helps no one.
- Help develop good work habits early and build on those. Don't worry as much about the grades as long as the child is learning and developing good work habits.
- Be sure to reinforce effort, not only outcome.

Related Resources

Participate in <u>Global #gtchat Powered by TAGT</u>, a weekly discussion on Twitter; each week features a different topic related to parenting gifted children.

#7 – Myths about Gifted Students

Condensed from the original work by Dr. Joyce VanTassel-Baska and Dr. Susannah Wood

Myth #1: They are aloof, proud of their own abilities, and care little for others.

Reality: Like non-gifted peers, some gifted children display these characteristics and some do not.

Myth #2: They're good at everything and should be reminded when they fail to perform at high levels. **Reality:** Gifted students vary in their abilities to perform just like any other group of students.

Myth #3: They do not need special programs as they will be able to perform at high levels regardless. Reality: Gifted learners must be given stimulating educational experiences appropriate to their level of ability if they are to realize their potential."

Myth #4: They have even profiles in respect to intellectual ability, academic aptitude, and social emotional development.

Reality: Gifted students develop at different rates from their non-gifted peers and at different rates in developmental areas.

Myth #5: They benefit from being a second teacher, tutoring others in greater need than themselves. **Myth #6:** They work well in randomly assigned groups to ensure that the work gets done correctly.

Reality: Gifted students benefit from working with others of their ability level.

Myth #7: They all enjoy independent work and are motivated to complete projects.

Reality: Just like their non-gifted peers, gifted students are not always motivated or enjoy doing independent work.

Myth #8: They all have pushy parents who expect the school to do more than is possible or reasonable for their children.

Reality: The "pushy-ness" of parents is often a result of continued stress and struggle with minimal success with schools.

Myth #9: They are good students, rarely causing behavioral problems of any kind in class.

Reality: Gifted students, like all students, are diverse in their behaviors and attitudes.

Myth #10: They are rarely at risk for educational achievement or attainment beyond high school.

Reality: Gifted students are at risk for educational achievement if their intellectual and affective needs are not met and/or if their community, home or school environments are not supportive.

Related Resources

Competing with Myths about the Social and Emotional Development of Gifted Students is an article by Dr. Tracy Cross focusing on social and emotional development. My View: Ten Myths about Gifted Students and Programs for Gifted contains Carolyn Coil's comments on myths about the gifted.

<u>Myths about Gifted Students</u> summarizes a series of myths first published in Gifted Child Quarterly, published by the National Association for Gifted Children.

#8 – Attitudes and Behaviors for Effective Advocacy

It is important for parents to be good advocates for their gifted child and for gifted education in general. Depending on the circumstances and the specific needs of your child or the group for whom you advocate, this may require a number of different meetings, strategies, and options.

What should not change are the behaviors and attitudes you hold when you meet with other people to advocate for gifted education. Below are suggestions adapted from an article by Gina Ginsberg Riggs; I apologize that I'm unable to find a direct link to the original article, which dates from 1984.

ALWAYS: prepare yourself for an appointment; be clear and specific about the purpose of your meeting, introduce yourself, and leave materials relevant to the issue.

be **punctual** and be willing to wait for a person who runs behind schedule.

keep letters and visits short and to the point.

be accurate and authentic with supporting facts - document resources.

be pleasant and polite.

be **aware** that **issues have two sides**—yours and that of the opposition. Be the first to acknowledge an opposing viewpoint.

support officials with **positive visibility** on behalf of the special needs of gifted children.

ask for a response to **keep communication going**. The key question is "What can WE do to help this child or group of children?"

follow-up with a thank-you note, phone call, e-mail, an appointment, a letter, vote, etc.

- **DO NOT:** be disappointed if you don't accomplish your purpose on the first visit; change is a slow process and involves a relationship built over time.
- **DO NOT:** make your issue complicated. This person likely must deal with many important matters simultaneously and will be more attentive if you keep your points short and simple.
- **DO NOT:** ever be **belligerent** or **threatening**. Consider opposing viewpoints, even if you do not share them. Conflict closes communication.
- **DO NOT: be late** for an appointment. Lack of respect for other people's time is rude.
- **DO NOT:** forget other staff members in thank-you cards. They may know more about an issue than the person with whom you met.
- **DO NOT:** quit! Persistence and perseverance eventually pay off.

Related Resources

<u>Preparing for and Holding an Effective School Meeting</u> has detailed information in an informative article on the Davidson Institute for Talent Development website. <u>Ten Tips for Parents of Gifted Students</u> contains useful reminders and suggestions.

#9 – Giftedness as an Educational Diagnosis

Whether you are a parent or an educator, it is vitally important to understand and communicate that giftedness is not a "reward" for good parenting, good behavior, or good grades by a student. **Giftedness is an educational diagnosis and gifted students need appropriate modification to curricular content in order to meet their learning needs.**

Under <u>The Texas State Plan for the Education of Gifted/Talented Students</u>, Texas public schools are required to identify and serve gifted students. At least three or more measures that utilize quantitative sources (such as valid tests and measurements) and qualitative sources (such as anecdotal information, portfolio work of the child, parent/teacher checklists, etc.) must be used.

It has been widely noted that giftedness is found in children from all racial and cultural groups, regardless of the economic circumstances in which they live. The appropriate identification of gifted children from varying situations and backgrounds has been and remains a serious problem. However, the belief that all children will learn at the same pace with the same materials does not make it true.

The Texas State Plan for the Education of Gifted/Talented Students makes it clear that educators must provide gifted students with options that will meet their educational needs. How that is accomplished remains primarily a local school district decision; but the mandate is in place for schools to do so. Key language in this document confirm that giftedness requires an educational component:

- Identified gifted/talented students are assured an array of learning opportunities that are commensurate with their abilities. Services are available during the school day as well as the entire school year.
- An array of appropriately challenging learning experiences in each of the four foundation curricular areas is provided for gifted/talented students in grades K- 12.
- A continuum of learning experiences is provided that leads to the development of advancedlevel products and/or performances.
- Opportunities are provided to accelerate in areas of student strengths.

There are many ways for educators to meet gifted students' educational needs. For example, <u>A Nation</u> <u>Deceived: How Schools Hold Back America's Brightest Students</u> lists 18 different ways that student learning can be accelerated.

As an advocate, what is most important to remember is that giftedness is an educational diagnosis, and that all students in a school setting should have the opportunity to learn and to grow intellectually.

Related Resources

The Misunderstood Face of Giftedness Is Your Child Gifted? What to Look for and Why You Should Know...

#10 - Effective Advocacy for Your Gifted Child

Under Texas Education Code (state law) §29.122, "...each school district shall adopt a process for identifying and serving gifted and talented students in the district and shall establish a program for those students in each grade level..."

The Texas Administrative Code (state rule) 19 TAC §89.3 states "School districts shall provide an array of learning opportunities for gifted/talented students in kindergarten through grade twelve and shall inform parents of the opportunities."

These are examples of a state law and a state rule which demonstrate that the State of Texas recognizes gifted students have specific needs that must be met. However, one of the most important tasks that the parent of a gifted child undertakes is to be that child's educational advocate. Why is it critical for parents to serve as education advocates? Because despite the lofty goals stated above, there is little accountability for gifted education written into law. Therefore, the quality of services for gifted students can vary greatly from school district to school district, from school to school within a school district, and even from grade to grade within a given school.

Advocacy is a significant factor that impacts the quality of a school district's services for the gifted. It is important to establish a positive working relationship with the school district. Good advocacy is most effective when the advocate has done his or her homework and knows how and when to approach school leaders in a positive and professional manner.

Effective advocacy is more than being passionate about gifted education. An effective advocate knows how to convey the message that needs to be heard and knows how to frame information in a manner that drives the point without alienating those who influence the decision-making process.

The following links provide guidance for gifted education advocacy and public education policy:

- <u>Effective Advocates</u> is a collection of articles published by Dr. Julia Link Roberts and Tracie Ford Inman. It provides tips on how to plan for advocacy and how to craft your message and to communicate it effectively.
- <u>Supporting Gifted Education through Advocacy</u> outlines the importance of effective nurturing of giftedness in children and adolescents through a cooperative partnership between home and school, one that is characterized by mutual respect and an ongoing sharing of ideas and observations about the children involved.
- <u>Advocating for Appropriate Education for Your Child</u> is one of the most informative and detailed guides for parents of gifted children when dealing with teachers and administrators in the public schools. It provides a very positive approach to being a good advocate for your child so that you can create a win-win situation.
- <u>Constructive Communication: How to Talk "GT" with Your Child's Teacher</u> is a short piece within a larger series of articles. It contains good advice for establishing a positive atmosphere for conversations with your child's teachers.

#11 - Establishing Parent Support Groups

In addition to the state law (Texas Education Code §29.122) and state rule (Texas Administrative Code 19 TAC §89.3) cited in article #11, the Texas State Board of Education has adopted the following as its goal for services for gifted learners: "Students who participate in services designed for gifted students will demonstrate skills in self-directed learning, thinking, research, and communication as evidenced by the development of innovative products and performances that reflect individuality and creativity and are advanced in relation to students of similar age, experience, or environment. High school graduates who have participated in services for gifted students will have products and performances of professional quality as part of their program services."

So state law, state rule, **and** a state goal indicate that the State of Texas recognizes gifted students have specific needs that must be met. But despite the lofty goal stated above, there is little accountability for gifted education written into law. Therefore, the quality of services for gifted students can vary widely among and even within school districts.

Advocacy is a significant factor that impacts the quality of a school district's services for the gifted. The most effective advocacy comes from inside the district and from the outside community. These advocates can maintain the necessary vigilance that ensures gifted services remain a priority.

When there is no advocate within the school system, the role of the parent advocate becomes even more valuable. A group of advocates can increase the likelihood of having an impact—there is potential strength in numbers. But it is important to establish a positive working relationship with the school district. Good advocacy is most effective when the advocates have done their homework and know how and when to approach school leaders in a positive and professional manner.

Organizing a parent support group in support of gifted education/gifted students in your local community is a good way to have a positive impact. As noted above, it is valuable to be seen as an ally to the school/district in which it is formed. That is easier to accomplish if the group can be formed and organized when there is **not** a crisis at hand that threatens services for the gifted.

The following links focus on organizing and advocating as a group, which can even more beneficial if done in a positive manner and spirit. As noted above, it is valuable for the group of parents to be seen as allies to the providers of the services.

- <u>Starting and Sustaining a Parent Group to Support Gifted Children</u> is a publication of the National Association for Gifted Children and provides a guide for parents interested in working to support gifted education in a local community through the formation of a parent group.
- <u>What Makes a Parent Group Successful?</u> provides detailed elements of a successful parent group and includes activities that will benefit parents and the school community.

There are a number of parent support groups in Texas that have memberships with Texas Association for the Gifted and Talented; visit <u>www.txgifted.org/psg-members</u> for a current listing. Visit their websites and see what information you can learn from them. Contact their leaders to find out firsthand what issues they face and what strategies have been successful for them.

#12 – Understanding the "Chain of Command"

When you are an advocate for any educational cause, it is important that you understand the chain of command in the school system. You want to be certain that you go "up" the chain of command so that you can work "with" the system instead of having it work against you.

For example, if you wish to change a law regarding parking in your community, you would not write the President. Start with a person close to the situation to better understand it – a member of the zoning commission or aide to a councilman. As needed, talk to the person on the next level above them.

The same holds true in the school system. If your child is having a problem in the classroom, you need to start with the teacher. Remember the goal should be to solve the problem—the key question is generally "How can we work together?" Act and behave in a positive manner (see article #8); that is always helpful.

It is appropriate to take notes so that you accurately document the meeting. It is also an excellent idea to send a thank you note or e-mail to the teacher and thank him or her for the meeting. If follow-up is expected, then be sure to do so before setting up another meeting.

If the situation persists and there is no more that can be done with the assistance of the teacher, then you move up the chain of command. It may be one of several people depending on the circumstances— perhaps the assistant principal of the school or the district coordinator of gifted services. Continue with the same procedure—make contact, be positive, document the outcome of the meeting, send thanks, and follow-up once again.

By proceeding in this manner, you are working through the system. If it is ultimately necessary to talk to a superintendent or school board member, you will be able to clearly explain the ongoing problem and how you have met with the necessary people along the way. If you jump up the chain of command without taking the intermediate steps, you may lose credibility.

It is also worth noting that the more active you are in the school community, the more credibility you are likely to have when you do have concerns and need to talk to people. They will see that you already invested in improving the quality of the school and are not just a "complainer."

This process is not quick and easy, but most often that is not how problems are solved or improvements made in a system. It is important to gain the maximum amount of support from as many people as possible to create positive change.

Additional Resources

How to Be an Advocate for a Gifted or Special Needs Child summarizes the key steps in advocacy, including the chain of command and being an active part of the school community. Educational Advocacy for Gifted Students provides a comprehensive overview of advocacy, including the necessary steps for moving up the chain of command.

#13 – Options Outside of Public Schooling

Texas state law requires public schools to identify and serve gifted students, grades K-12. <u>The Texas</u> <u>State Plan for the Education of Gifted/Talented Students</u> provides an outline of what districts must do, but ultimately policies and services are established and managed by the local school district. Consequently, the process by which gifted students are identified can vary among districts, as do the services provided. With well over 1,000 school districts in the state, the range is quite broad.

Parents can seek educational options outside of the public school system with **charter schools** and **private schools**; in addition, a number of parents are choosing **homeschooling** as a viable option. When choosing a school, if possible, it is best to visit the school, perhaps multiple times. Parents should try to get a feel for the school's atmosphere, how the school operates, how classes and the school day are structured, so they can determine if it will be a good match for their child.

Charter schools in Texas are regulated by the state. Like public schools, charter schools do not charge tuition, and students are required to take state-mandated tests. Unlike public schools, they do not have to follow all the state laws and rules, and that includes gifted education; charters are not required to identify or provide services to gifted students, although there are some that do so. A few charter schools have been approved to offer courses through the International Baccalaureate, which although not a gifted program, does appeal to many gifted students. Even if direct services for the gifted are not provided, parents may find a charter school that has a philosophy or program model that will be appropriate for their gifted child. The <u>Texas Charter School Technical Assistance Network</u> is a good source of information about charter schools in general, and has links to charter schools across the state.

Private schools do charge tuition and are not required to have its students take state-mandated tests. There is a wide range of private schools, including a few that are specifically designed for gifted students. There are much larger numbers of college preparatory schools, those with religious affiliations, and those with specific educational philosophies, such as Montessori education. Most private schools do not have specific gifted programs or services; however, many do have rigorous curriculum and may be appropriate academically for some gifted students. The smaller, more personalized atmosphere that private schools may offer sometimes create flexibility when dealing with students with specific learning needs.

Homeschooling gifted children has become more common, as the range of resources available online has made many topics more accessible to children and parents. Homeschooling may not be an option for many families, but there is an active community of gifted homeschoolers in Texas and beyond. There are some outstanding books available (see article #19). Two websites that provide a wealth of information are <u>Gifted Homeschoolers Forum</u> and <u>Hoagies' Gifted Education Page</u>.

Summer programs offer great opportunities for enrichment for gifted children, as well as a way to find like-minded people who share the same passions. TAGT lists a number of such <u>programs here</u>. The National Association for Gifted Children also has <u>information and a directory</u> available.

#14 – The Texas State Plan for the Education of Gifted/Talented Students

The state's formal interest in gifted education dates back to 1977, when legislation concerning the education of the gifted was first passed. Two years later, state funding for the gifted was made available, though providing services was optional. In 1987, the Texas Legislature mandated that all school districts must identify and serve G/T students at all grade levels. In 1990, the <u>Texas State Plan for the</u> <u>Education of Gifted/Talented Students</u> was developed by the Texas Education Agency and adopted by the Texas State Board of Education.

The State Plan has all the necessary information to understand what the State of Texas requires of its public school districts in regard to gifted education. It includes key references to the Texas Education Code, which is legislation approved by the Texas Legislature, and the Texas Administrative Code, policy created by the Texas Education Agency, to support the laws which have been passed.

There are five sections in the State Plan; each one covers an area of student services and management of a district's plan for providing for the education of its gifted/talented students. Highlights of the five areas are noted below:

- Section 1: Student Assessment discusses appropriate identification of gifted students and policies a school district must have in place
- Section 2: Service Design covers how a district plans its programs and services to meet the needs of its gifted students, grades K-12
- **Section 3: Curriculum & Instruction** requires districts to alter the depth, the speed, and/or the pacing of a particular course of study available to its gifted students
- Section 4: Professional Development educators considered part of a district's gifted services must receive a minimum of 6 hours of training yearly
- Section 5: Family/Community Involvement notes that parents be notified on a regular basis regarding services for gifted students and that evaluation of program services occur yearly

Each of the five sections has a grid with the three columns. The three columns are labeled as:

In Compliance – everything in this column is required by the State of Texas. Each item will list a citation from the Texas Education Code (TEC) or the Texas Administrative Code (TAC) that reinforces its status as required.

Recommended – nothing is required by a local district in this column. Advocates can look at items in this this column to suggest improvements to the local district's gifted services so they will extend beyond simple compliance with the state requirements.

Exemplary – nothing is required by a local district in this column. Advocates can look at items in this this column to suggest improvements to the local district's gifted programs so they can achieve the greatest level of services.

#15 – The State Goal for Services for Gifted/Talented Students

The state's formal interest in gifted education dates back to 1977, when the first legislation concerning the education of the gifted was passed. Two years later, state funds were made available, though providing services was optional for local school districts. In 1987, the Texas Legislature mandated that all school districts must identify and serve G/T students at all grade levels. In 1990, the <u>Texas State Plan for the Education of Gifted/Talented Students</u> was developed by the Texas Education Agency and adopted by the Texas State Board of Education.

When the State Board adopted the State Plan, it included a commitment of high-level learning opportunities for gifted and talented learners, with the inclusion of the following goal:

Students who participate in services designed for gifted and talented students will demonstrate skills in self-directed learning, thinking, research, and communication, as evidenced by the development of innovative products and performances that reflect individuality and creativity and are advanced in relation to students of similar age, experience, or environment. High school graduates who have participated in services for gifted/talented students will have produced products and performances of professional quality as part of their program services.

The State Goal provides some very powerful language that can be used by advocates when seeking support for improved programs and services for gifted and talented students in the local community, as well as at the regional and statewide level.

When advocating, be aware that learning is often broken down into three component parts: *content*, *process* and *product*. There is language in the State Goal that covers all three of these elements:

- **Content** is what students learn. In the State Goal it is "advanced in relation to students of similar age, experience, or environment."
- **Process** is how students learn. The State Goal mentions "self-directed learning, thinking, research, and communication."
- **Product** is the demonstration of that learning. The State Goal notes *"innovative products and performances of professional quality...that reflect individuality and creativity."*

As an advocate, try to become familiar with this language, as it is part of official state policy and can be cited for support when you are seeking to improve gifted education.

#16 – House Bill 5 and Evaluation of Services for the Gifted

The evaluation of gifted services is required to be conducted on a yearly basis, as noted in Section 5 of the <u>Texas State Plan for the Education of Gifted/Talented Students</u>. In the 2013-2014 school year, House Bill 5 set up the Community and Student Engagement Ratings system, which required school districts to self-evaluate their overall performance and the performance of each campus in the district in regard to eight specific programs:

- (A) fine arts;
- (B) wellness and physical education;
- (C) community and parental involvement;
- (D) 21st Century Workforce Development program;
- (E) the second language acquisition program;
- (F) the digital learning environment;
- (G) dropout prevention strategies;
- (H) programs for gifted and talented students.

For each area, the district and each campus must assign itself a performance rating and grade that is acceptable (A, B, or C) or unacceptable (D or F). The district is also required to report these performance ratings to the Texas Education Agency and make them available to the public. Below are the results from 2016-2017; It is interesting to note that of the 8 areas listed above, programs for the gifted had the lowest number of Exemplary and Recognized programs overall.

GIFTED & TALENTED PROGRAMS	DISTRICTS		CAMPUSES	
Locally Assigned Rating	#	%	#	%
Exemplary	332	27.5%	3,622	42.8%
Recognized	501	41.5%	2,589	30.6%
Acceptable	291	24.1%	1,498	17.7%
Unacceptable	8	0.7%	88	1.0%
N/A	75	6.2%	659	7.8%

Beginning with the 2017–2018 school year, Community and Student Engagement Ratings will be 10% of every district's and campus's academic accountability rating; I am uncertain whether the individual categories will be made available publicly or simply folded into the larger evaluation process.

As a parent, you may have the opportunity to be involved in this evaluation process. The law states that the criteria for evaluation are to be developed by a local committee. There may be an opportunity to participate in the development of the criteria and/or the opportunity to provide feedback about the quality of the services.

In regards the evaluation of gifted education, become very familiar with the <u>Texas State Plan for the</u> <u>Education of Gifted/Talented Students</u>. While a formal evaluation can take many forms, a school district and its campuses must abide, at the very least, by all compliance items noted in this plan. That is the starting point for being rated acceptable.

It is a responsibility of parents and community members to monitor the results of the evaluation for the district as a whole and for individual campuses. The expectation is that the school district will use the self-evaluation as an opportunity to engage the community and to improve the quality of the services they provide in all of these eight areas.

#17 – Understanding Best Practices in Gifted Education

While research in the field of gifted education is ongoing, and honest disagreements remain, there are a number of areas in which there is general agreement as to what practices constitutes high-quality gifted services. Some key elements are summarized below.

Identification: There must be a match between the identification measures used and the services the school will provide. If a district is designing a program for the creatively gifted, they must identify students using tests and measures that will find them. While this may seem obvious, some school districts use identification tools that do not match up with the program services they provide.

Program Design: Once gifted students are identified, it must be determined what structure the program will have. There is no clear-cut evidence on which is the "best" model. Generally speaking, the best service models may contain a variety of options and opportunities for students.

- **Magnet schools** can be operated in a variety of ways, but generally allow students to go to a host school that has some type of specialized course of study.
- **Grade acceleration** allows those who demonstrate mastery to move to a higher grade level. It is best for students who show consistently advanced development across all subjects.
- **Subject acceleration** allows those who excel in one area to go into a higher grade for that class only, or to take a more advanced class in school or online.
- **Cluster grouping** involves grouping gifted students together in the classroom for special lessons or projects. There are a number of methods to structure this option.

Instructional Strategies: When a program design is in place, it is important to determine how student learning is paced and how mastery is demonstrated. Once again, there are a variety of effective options, and there is rarely one "right" approach for all gifted students.

- **Compacting** uses pre-testing to determine subject mastery. When students demonstrate sufficient mastery of a subject (generally 80 percent or higher) they have the opportunity for alternative instruction or projects, which often are complementary to the topic.
- **Differentiated curriculum** offers a structure in which teachers tailor lessons to the needs of students at various levels. Although not necessarily just for the gifted, it can offer flexibility for students to embark on challenging and advanced work.
- Tiered learning allows students to self-select more sophisticated or advanced projects or tasks.

Special classes or programs: The <u>Texas Performance Standards Project</u>, <u>Texas Future Problem</u> <u>Solving</u>, <u>Texas Destination Imagination</u>, <u>Texas Odyssey of the Mind</u>, and the <u>Stock Market Game</u> are a few examples among many programs or competitions that appeal to gifted students that may involve a specific in-depth course of study.

Social and Emotional Needs: Gifted students have very specific social and emotional needs that can differ greatly from other students. It is important that gifted programs have some method of incorporating self-understanding and self-awareness into their education.

Best Practices of Schools That Nurture Excellence is an overview of many aspects of quality programming and design for the gifted.

<u>A Nation Empowered</u> provides much research on how to provide acceleration for gifted students.

#18 - TAGT Legacy Book Award Winners for Parents

TAGT Legacy Book Awards

The Legacy Book® Awards, a service from the Texas Association for the Gifted & Talented (TAGT), honor outstanding books published in the United States that have long-term potential for positively influencing the lives of gifted individuals and contribute to the understanding, well-being, education and success of gifted and talented students. The following books have been chosen as the award-winning books for parents of gifted children:

- **2017** Parenting Gifted Children 101: An Introduction to Gifted Kids and Their Needs Tracy Ford Inman and Jana Kirchner, Prufrock Press
- **2017** Emotional Intensity in Gifted Students (2nd ed.) Christine Fonseca, Prufrock Press
- **2015:** *The Creativity Crusade: Nurturing and Protecting Your Child's Creativity* (co-winner) Richard Shade and Patti Garrett Shade, RASPO Publishing
- **2015:** *Raising the Shy Child: A Parent's Guide to Social Anxiety* (co-winner) Christine Fonseca, Prufrock Press
- 2014: Make Your Worrier a Warrior Daniel Peters, Great Potential Press
- 2013: Raising Creative Kids Susan Daniels and Daniel Peters, Royal Fireworks Publishing
- **2012:** Ten Things NOT to Say to Your Gifted Child Nancy Heilbronner, Great Potential Press
- **2011:** Parenting Gifted Children: The Authoritative Guide Edited by Jennifer Jolly, Donald Treffinger, Tracy Inman, & Joan Franklin Smutny, Prufrock Press
- **2010:** *Take Control of Asperger's Syndrome* Janet Price and Jennifer Engel Fisher, Prufrock Press
- **2009:** Raising a Gifted Child: A Parenting Success Handbook Carol Fertig, Prufrock Press
- **2008:** *High IQ Kids: Collected Insights, Information, and Personal Stories from the Experts* Kiesa Kay and others, Free Spirit Publishing
- **2007:** Parenting Gifted Kids: Tips for Raising Happy & Successful Children James Delisle, Prufrock Press
- **2006:** Losing Our Minds: Gifted Children Left Behind Deborah Ruf, Great Potential Press
- **2005:** *Grandparents' Guide to Gifted Education* (co-winner) James Webb and others, Great Potential Press
- **2005:** *Genius Denied* (co-winner) Jan Davidson, Bob Davidson, and Laura Vanderkam, Simon & Schuster
- **2004:** Empowering Gifted Minds: Educational Advocacy That Works Barbara Jackson Gilman, Great Potential Press

#19 - Other Books of Interest to Parents of the Gifted

General Information

A Parent's Guide to Gifted Children James Webb and others, Great Potential Press

A Parent's Guide to Gifted Teens Lisa Rivero, Great Potential Press

Being Smart about Gifted Education Dona Mathews & Joanne Foster, Great Potential Press

Bright, Talented and Black: A Guide for Families of African American Gifted Learners Joy Lawson Davis, Great Potential Press

College Planning for Gifted Students: Choosing and Getting Into the Right College Sandra Berger, Prufrock Press

Giftedness 101 Linda Kreger Silverman, Springer Publishing Company

Helping Gifted Children Soar: A Practical Guide for Parents and Teachers Carol Strip Whitney and Gretchen Hirsch, Great Potential Press

If I'm So Smart, Why Aren't the Answers Easy? Robert Schultz and James Delisle, Prufrock Press

Infinity & Zebra Stripes: Life with Gifted Children Wendy Skinner, Great Potential Press

Life in the Fast Brain: Keeping Up with Gifted Minds Karen Isaacson, Great Potential Press

Raising Your Spirited Child Mary Sheedy Kurcinka, Harper Perennial

The Survival Guide for Parents of Gifted Kids Sally Yahnke Walker, Free Spirit Publishing

Homeschooling

Creative Home Schooling: A Resource Guide for Smart Families Lisa Rivero, Great Potential Press

Homeschooling Gifted and Advanced Learners Cindy West, Prufrock Press

How to Work and Homeschool: Practical Advice, Tips, and Strategies from Parents Pamela Price, Gifted Homeschoolers Forum Press

Learning in the 21st Century: How to Connect, Collaborate, and Create Ben Curran and Neil Wetherbee, Gifted Homeschoolers Forum Press

Making the Choice: When Typical Schooling Doesn't Fit Your Atypical Child Corin Barsily Goodwin and Mika Gustavson, Gifted Homeschoolers Forum Press

Problem Based Learning in Your Homeschool Shelagh Gallagher, Royal Fireworks Publishing

Social and Emotional Needs

Emotional Intensity in Gifted Students: Helping Kids Cope with Explosive Feelings Christine Fonseca, Prufrock Press

Letting Go of Perfect: Overcoming Perfectionism in Kids Jill Adelson and Hope Wilson, Prufrock Press

Living with Intensity: Understanding the Sensitivity, Excitability, and the Emotional Development of Gifted Children, Adolescents, and Adults Susan Daniels and Michael Piechowski, Great Potential Press

Moving Past Perfect Thomas Greenspon, Free Spirit Publishing

The Underachieving Gifted Child Del Siegle, Prufrock Press

Twice/Multi-Exceptional

Misdiagnosis and Dual Diagnoses of Gifted Children and Adults James Webb and others, Great Potential Press

School Success for Kids with Asperger's Syndrome Stephan M. Silverman and Rich Weinfeld, Prufrock Press

Smart Kids with Learning Difficulties: Overcoming Obstacles and Realizing Potential Rich Weinfeld, Linda Barnes-Robinson, and others, Prufrock Press

Special Needs Advocacy Resource Book Rich Weinfeld and Michelle Davis, Prufrock Press

Books for Gifted Youth

101 Success Secrets for Gifted Kids: The Ultimate Handbook Christine Fonseca, Prufrock Press

The Gifted Kids' Survival Guide: A Teen Handbook Judy Galbraith and Jim Delisle, Free Spirit Publishing

The Gifted Kids' Survival Guide, Ages 10 and Under Judy Galbraith, Free Spirit Publishing

The Smart Teen's Guide to Living with Intensity Lisa Rivero, Great Potential Press

#20 - Websites and Resources about Gifted Education

Gifted Associations and Texas Education Agency

Texas Association for the Gifted and Talented (TAGT) www.txgifted.org

Global #gtchat Powered by TAGT; a weekly discussion on Twitter; transcripts available online <u>https://globalgtchatpoweredbytagt.wordpress.com</u>

National Association for Gifted Children (NAGC) <u>www.nagc.org</u>

Texas Education Agency: Gifted/Talented Education <u>http://tea.texas.gov/Curriculum_and_Instructional_Programs/Special_Student_Populations/Gi</u> <u>fted_and_Talented_Education/Gifted_Talented_Education</u>

The Association for the Gifted <u>www.cectag.org</u>

General Information about Giftedness

A Nation Deceived www.accelerationinstitute.org/nation_deceived

A Nation Empowered www.accelerationinstitute.org/nation_empowered

Cybrary Man's Educational Web Sites http://cybraryman.com

Davidson Institute for Talent Development <u>www.ditd.org</u>

Duke TIP Digest of Gifted Research http://tip.duke.edu/node/84

Homeschooling

Gifted Homeschoolers Forum http://giftedhomeschoolers.org

Publishers: Teaching and Learning

Bright Ideas/A.W. Peller & Associates <u>www.brightideascatalog.com</u>

Free Spirit Publishing www.freespirit.com

Great Potential Press www.giftedbooks.com Gifted Development Center www.gifteddevelopment.com

Hoagies' Gifted Education Page www.hoagiesgifted.org

National Research Center on Gifted/Talent www.gifted.uconn.edu/nrcgt/resource.html

Supporting Emotional Needs of the Gifted <u>www.sengifted.org</u>

Hoagies' Gifted Education Page www.hoagiesgifted.org/home_sc.htm

Pieces of Learning www.piecesoflearning.com

Prufrock Press www.prufrock.com

Royal Fireworks Press www.rfwp.com

Resources for Mathematics

ABC LearnOnline Count on Us www.abc.net.au/countusin/games.htm

AplusMath <u>www.aplusmath.com</u>

Brainormous www.brainormous.com

FunBrain.com <u>www.funbrain.com</u>

Resources for Science

American Chemical Society <u>http://www.acs.org/content/acs/en/educatio</u> <u>n/whatischemistry/adventures-in-</u> chemistry.html

Animated Engines www.animatedengines.com

Building Big www.pbs.org/wgbh/buildingbig

Cells Alive www.cellsalive.com/index.htm

Chem4Kids.com www.chem4kids.com

DiscoverE <u>www.discovere.org</u>

Journey North <u>www.learner.org/jnorth</u>

Twice/Multi-Exceptional and Special Needs

Equity in Gifted/Talented Education www.gtequity.org

National Center for Learning Disabilities <u>www.ncld.org/types-learning-</u> <u>disabilities/adhd-related-issues/giftedness</u> Math Cat's Crafts <u>www.mathcats.com/crafts.html</u>

MathWorld.Wolfram.com http://mathworld.wolfram.com/about

MathPath.org www.mathpath.org/math.htm

Paper Models of Polyhedra <u>www.korthalsaltes.com</u>

NASA Jet Propulsion Labs www.jpl.nasa.gov/kids

Ology <u>www.amnh.org/ology</u>

Robert Krampf's Website <u>http://thehappyscientist.com</u>

Science Museum of Minnesota www.smm.org/explore

The Franklin Institute www.fi.edu/learning-resources

World of Science encyclopedia http://scienceworld.wolfram.com/info

Zoom.Sci www.pbskids.org/zoom/activities/sci

2e - Twice Exceptional Newsletter www.2enewsletter.com

Uniquely Gifted www.uniquelygifted.org