

PAGE Handbook Series

The Handbook for Understanding and Challenging the Gifted: An Introduction for Teachers



www.giftedpage.org

A message from PAGE and PSEA

Dear Teachers:

Welcome to the world of gifted education. Your awareness of how to meet the needs of gifted students can have an immeasurably positive effect on their academic and intellectual future.

Meeting the needs of each gifted student in your classroom is both challenging and rewarding. The regulations outlined in Chapter 16 of the School Code detail your responsibility in providing appropriate services to each child. Some of those regulations are discussed in this booklet.

Pennsylvania Association for Gifted Education (PAGE) and Pennsylvania State Education Association (PSEA) have partnered to develop this booklet to serve as a resource for teachers. This booklet is meant to provide teachers with a definition of giftedness, a list of common traits of gifted children, and some practical strategies for working with gifted children. We invite you to use these resources to increase your ability to serve your gifted students in the most effective manner possible.

Sincerely yours,

Pennsylvania Association for Gifted Education
Pennsylvania State Education Association



Challenging & Enriching Students

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ADVOCATING FOR GIFTED EDUCATION SINCE 1952

The Handbook for Understanding and Challenging the Gifted: An Introduction for Teachers

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Chapter 16: Special Education for the Gifted

In December 2000, the State Board of Education created a separate chapter of the school code, Chapter 16: Special Education for Gifted Students. In accordance with the regulatory review process, the Board reviewed Chapter 16 during 2008, updating provisions and making procedural changes.

- Chapter 16 of the Pennsylvania School Code can be found at the following link:
<https://www.pacode.com/secure/data/022/chapter16/chap16toc.html>

In Chapter 16, educators, administrators, and parents of gifted children will find all state regulations as they apply to gifted education in Pennsylvania. Familiarity with Chapter 16 assures that districts remain in compliance with Pennsylvania School Code.

Who are the gifted?

Mentally Gifted

- Mentally gifted is defined as “outstanding intellectual and creative ability, the development of which requires specially designed programs or support services, or both, not ordinarily provided in the regular education program” (22 Pa. Code §16.1).

Twice Exceptional or Dual Exceptionality

- “If a student is determined to be both gifted and eligible for special education, the procedures in Chapter 14 take precedence. For these students identified with dual exceptionalities, the needs established under gifted status in this chapter must be fully addressed in the procedures required in Chapter 14” (22 Pa. Code §16.7b).
- “For students who are gifted and eligible for special education, it is not necessary for school districts to conduct separate screening and evaluations or use separate procedural safeguard processes to provide for a student’s needs as both a gifted and an eligible student (22 Pa. Code §16.7c).
- For students who are thought to be both gifted and disabled, care must be taken by the school district to assure that both giftedness and the disability are fully addressed as part of the student’s public education.

Finding and Identifying the Gifted

- “Each school district is required to develop and implement a system to locate and identify all students within the district who are thought to be gifted and in need of specially designed instruction” (22 PA Code, 16.21a).
- School districts are required to provide awareness activities annually designed to reach parents of all Pennsylvania students to inform them of what gifted services are available in the state and how to request them. Examples include print and online media, student handbooks, and district web sites (16.21.b).
- “Parents who suspect that their child is gifted may request a gifted multidisciplinary evaluation of their child at any time, with a limit of one request per school term. The request must be in writing. The school district shall make the Permission to Evaluate form readily available for that purpose” (22 PA Code, 16.22(c)).
- If a parent makes a request orally, the district has 10 calendar days to provide the parent with a Permission to Evaluate form so that the request may be submitted in writing (22 PA Code, 16.22(c)). The district then has 60 calendar days in which to complete the initial evaluation and present the report to the parents (22 PA Code, 16.22(j)).

IQ 130 and Higher

“The term ‘mentally gifted’ includes a person who has an IQ of 130 or higher or when multiple criteria as set forth in this chapter and Department Guidelines indicate gifted ability. Determination of gifted ability will not be based on IQ score alone. . . Determination of mentally gifted must include an assessment by a certified school psychologist” (22Pa. Code §16.21(d)).

- **IMPORTANT NOTE:** No one test or measure is sufficient to determine giftedness, and the evaluation and testing literature recognizes that there is a margin for error in any standardized testing. The standard error of measurement also applies when reporting IQ.

OR . . .

IQ Lower Than 130

“A person with an IQ score lower than 130 may be admitted to gifted programs when other educational criteria in the profile of the person strongly indicate gifted ability” (22 Pa. Code §16.21d). If a student’s IQ is less than 130, other factors such as academic performance, demonstrated achievement, and other observed skills must strongly indicate gifted ability for that student to be admitted to a gifted program. Because disabilities and bias factors may mask gifted abilities (explained later in brochure), districts are cautioned to examine discrepancies between ability assessment results and academic achievement or demonstrated skills, and discrepancies among ability subtests.

Defining Giftedness in Pennsylvania

Multiple Criteria

- Districts in Pennsylvania utilize an individualized identification matrix to determine eligibility for gifted education services. Other than IQ score, criteria which can indicate gifted ability include but are not limited to achievement, rate of acquisition/retention, demonstrated achievement, early skill development, and intervening factors masking giftedness. These are described in Chapter 22 of the Pennsylvania School Code as follows:

Achievement

- “A year or more above grade achievement level for the normal age group in one or more subjects as measured by nationally normed and validated achievement testable to accurately reflect gifted performance. Subject results shall yield academic instruction levels in all academic subject areas” (22 Pa. Code §16.21e1).

Rate of Acquisition and Retention

- “An observed or measured rate of acquisition/retention of new academic content or skills that reflect gifted ability” (22 Pa. Code §16.21(e)(2)).
- Rate of acquisition is the speed at which the student is able to acquire, understand, and demonstrate competency or mastery of new learning. This data can be obtained by simple procedures such as Curriculum Based Assessment (CBA); direct observation; and reporting from parents, teachers, or supervisors.
- An example of acquisition/retention: the gifted student, after approximately one to three repetitions of new knowledge/skills, is able to achieve mastery; other students may require four to eight repetitions. Rate of acquisition/retention is used to adjust the pace of learning for the gifted student.

Demonstrated Achievement

- Chapter 16 defines this as: “Demonstrated achievement, performance or expertise in one or more academic areas as evidenced by excellence of products, portfolio or research, as well as criterion-referenced team judgment” (22 Pa. Code §16.21(e)(3)).
- A child who is gifted might display expertise that shows a high level of accomplishment and indicate exceptional interest and motivation in specific areas. These may be documented in permanent products, portfolios, demonstration of skills, awards, community involvements, or others. For example, a student is a member of the high school debate team and has qualified for the state finals in grades 9, 10, and 11; a student loves to write poetry and has a folder of unpublished works.
- The assessment instruments should have high enough ceilings to accurately reflect academic performance in the gifted range. Assessment should yield performance and achievement data beyond basic skills and should be used for appropriate instructional placement. This data forms the basis for decisions as to where, in specific content areas and specific courses or curriculum, a student should begin the learning experiences for the year. The results of the testing must provide instructional levels in all academic subject areas for use in determining educational placement.

Early Skill Development

- Chapter 16 defines this as: “Early and measured use of high level thinking skills, academic creativity, leadership skills, intense academic interest areas, communications skills, foreign language aptitude, or technology expertise” (22 Pa. Code §16.21(e)(4)).
- Assessment of early and measured use of high level thinking skills could include checklists or inventories such as Guilford or Bloom’s Taxonomy. It could also include anecdotal notes that document developmental milestones reached earlier than average students, or skills mastered beyond that child’s age level.

Intervening Factors Masking Giftedness

- “Documented, observed, validated or assessed evidence that intervening factors such as English as a second language, learning disability, physical impairment, emotional disability, gender or race bias, or socio/cultural deprivation are masking gifted abilities” (22 Pa. Code §16.21 (e)(5)).
- Some students’ gifted abilities may be hidden by factors such as ethnicity, socio-economic status, or disability. Data specifically tied to the student’s learning environment is used to make decisions on remedial/coping strategies and specially designed instruction. For example: An economically disadvantaged household where educational resources and opportunities are lacking or a household experiencing problems such as alcoholism, divorce, spouse/child abuse, or incarceration may mask the student’s identification as gifted.

Traits of Giftedness

No two gifted individuals exhibit the exact same traits, but this list gives the most common traits found in the gifted. It may help you better understand the children you are working with.

➤ Cognitive

- Keen power of abstraction
- Interest in problem-solving and applying concepts
- Voracious and early reader
- Large vocabulary
- Intellectual curiosity
- Power of critical thinking, skepticism, self-criticism
- Persistent, goal-directed behavior
- Independence in work and study
- Diversity of interests and abilities

➤ Creative

- Creativeness and inventiveness
- Keen sense of humor
- Ability for fantasy
- Openness to stimuli, wide interests
- Intuitiveness
- Flexibility
- Independence in attitude and social behavior
- Self-acceptance and unconcern for social norms
- Radicalism
- Aesthetic and moral commitment to self-selected work

➤ Affective

- Unusual emotional depth and intensity
- Sensitivity or empathy to the feelings of others
- High expectations of self and others, often leading to feelings of frustration
- Heightened self-awareness accompanied by feelings of being different

- Easily wounded, need for emotional support
- Need for consistency between abstract values and personal actions
- Advanced levels of moral judgment
- Idealism and sense of justice

➤ Behavioral

- Spontaneity
- Boundless enthusiasm
- Intensely focused on passions - resists changing activities when engrossed in own interests
- Highly energetic - needs little sleep or down time
- Constantly questions
- Insatiable curiosity
- Impulsive, eager and spirited
- Perseverance - strong determination in areas of importance
- High levels of frustration - particularly when having difficulty meeting standards of performance (either imposed by self or others)
- Anger/Annoyance especially related to perceptions of failure
- Continuous talking/chattering¹

¹ Source: National Association for Gifted Children. (2018) & Clark, B. (2008). *Growing up gifted (7th ed.)* Upper Saddle River, NJ: Pearson Prentice Hall.

Gifted Children: Myth vs. Fact

Myth: Gifted students will achieve without guidance.

Fact: Without guidance and support, gifted students may lose motivation or underachieve.

Myth: Gifted students should be given large quantity of work at average grade level.

Fact: Gifted students need a high degree of educational challenge, not more work at an average or repetitious level.

Myth: Gifted students are “teacher pleasers” and easy to teach.

Fact: For gifted students to maintain high levels of achievement, teachers must make curricular adjustments. Without appropriate modifications, gifted students may develop behavior problems.

Myth: Gifted students will make straight As.

Fact: Gifted students will not always achieve, especially if unmotivated.

Myth: Gifted students are nearly always from upper middle class professional families.

Fact: Gifted students are from diverse racial, ethnic, and socio-economic backgrounds.

Myth: Gifted students are often socially popular with their peers.

Fact: Gifted students are often ostracized socially, especially at the secondary level.

Myth: Gifted students learn best on their own.

Fact: Gifted students benefit from being grouped with their intellectual peers for a significant part of their instructional day.

Myth: Providing extra support to gifted students fosters snobbery and is likely to lead to an elitist class.

Fact: Giftedness is fragile. Every child deserves an education that is appropriate to individual needs. Children at both extremes of the ability spectrum need special education.

Myth: Gifted students are best served when tutoring.

Fact: When gifted students consistently tutor others, often they are not learning anything new. This can create unhealthy self-esteem issues for both the tutored and the gifted student.

Educational Program Options

A variety of educational program options are appropriate for gifted children. Check with your local gifted specialists to determine what educational program options are available in your district. Common program options include:

- **Curriculum Compacting:** Standard curriculum is compressed into a shorter period of time, allowing the gifted student to study related material while classmates master standard content.
- **Cluster Grouping:** Placing a group of 5-10 identified gifted students in a classroom with other students of mixed abilities.
- **Independent Study:** Students work independently under guidelines or a contract. Mentorships, apprenticeships and field experiences are designed to meet students' performance levels and career interests.
- **Grade and/or Subject Acceleration:** Progressing through an educational program at rates faster or ages younger than is conventional.
- **Field Experiences:** Out-of-school educational experiences such as trips, workshops, and extracurricular activities such as Odyssey of the Mind, Future Problem Solving and Mock Trial.
- **Tiered Assignments:** Adjusting the same lesson or concept to accommodate high, middle and low readiness levels.
- **Advanced Placement:** Allowing access to Advanced Placement classes to students at earlier-than-usual grade level.
- **Co-enrollment:** Provides students with the opportunity to take college courses while earning both high school and college credit.
- **Pull-out Program:** Students are pulled out of the regular classroom on a scheduled basis to go to a resource room staffed by a teacher trained in the education of gifted children.
- **Resource Room/Area:** A special classroom or area is set up for advanced learning or enrichment opportunities.
- **Self-contained Classroom:** A classroom in which all students have been identified as gifted/high ability. This is their everyday classroom assignment.
- **Enrichment:** Curriculum is modified to provide greater depth and breadth than generally provided.

Curriculum and Instruction

Chapter 16 requires districts to provide gifted students with specially designed instruction (§16.41(b) (1) and defines this instruction as “adaptations or modifications to the general curriculum, instruction, instructional environments, methods, materials, or a specialized curriculum for students who are gifted” (22 Pa. Code §16.1).

Developing specially designed instruction for gifted students is the responsibility of both the gifted support staff and regular education teachers. Assessment of the student’s needs must be the basis for the specially designed instruction. It must be “individualized to meet the needs of the student” (22 PA Code 16.1, vi) and “provided in conformity with a GIEP” (22 PA Code 16.1, viii). It should not be a one-size-fits-all program, and should be informed by three fundamental differences that distinguish gifted learners from others:

- The capacity to learn at faster rates, with more depth and greater complexity,
- The capacity to find, solve, and act on problems more readily,
- The capacity to manipulate abstract ideas and make connections.

When planning for challenge and differentiation for the gifted in your classroom, keep the following in mind:

- Gifted students benefit from being grouped with intellectual peers for a significant part of the instructional day. This will stimulate them to achieve more than they would if they work alone or in mixed ability groups.
- Provide multiple opportunities for creative outlets through open-ended projects and products.
- Provide depth in content areas and subjects of interest to gifted students, moving beyond the curriculum.
- Make sure gifted students are not punished with work or a lesser grade because they take a risk. Replace the standard curriculum with more challenging opportunities.
- Provide higher level activities and lesson options on a regular basis, including divergent and evaluative thinking.
- Allow time for gifted students to explore their passion areas and express them in varied disciplines and mediums.
- Provide opportunities for gifted learners to be challenged and encourage perseverance in the face of obstacles.
- Encourage independent study and research skills, including the use of multiple resources and the reading of original documents.
- Reduce the amount of lecture, worksheets, drill, and practice.
- Remember: BOTH enrichment and acceleration are needed.
- Differentiate your instruction
 - Differentiated Instruction (DI) “must be viewed as an approach that is necessary but not sufficient to comprehensive service delivery for gifted learners.” To be effective, DI must include the gamut of strategies, starting with proper grouping of gifted students, enrichment, acceleration, lessons that build on and add depth to the core curriculum at the level appropriate to the learner².

² Source: NACG. (2018). NACG position statement: Differentiating curriculum and instruction for gifted and talented students. www.nagc.org

Develop and Teach Tiered Lessons

**Example lesson on page 13*

- Tiered assignments offer varied levels of assignments or activities that focus on a skill or concept. The different levels allow students of different abilities to build on prior knowledge and contribute to continued growth.
 - The goal of tiered assignments is to ensure that students will work at an appropriate level of challenge
 - Teacher selects one concept or skill and designs activities at different levels that enhance and extend students' knowledge of that skill.
 - Teacher targets students for each level according to their learning needs.
 - All students benefit by being able to work at their appropriate level.

Develop and Implement Specially Designed Instruction

- Chapter 16 requires that specially designed instruction for gifted students be:
 - Conducted in an instructional setting
 - Provided in an instructional or skill area
 - Provided at no cost to the parents
 - Provided under the authority of a school district, directly, by referral or by contract
 - Provided by a school district, intermediate unit or other educational service agency
 - Individualized to meet the educational needs of the student
 - Reasonably calculated to yield meaningful educational benefit and student progress
 - Provided in conformity with a Gifted Individualized Education Plan (22 Pa. Code §16.1)

In developing specially designed instruction, there are four elements that teachers can consider as a framework: Curriculum, Instruction, Process, and Product. The following are key principles that provide a guide for gifted program development.

➤ Curriculum

- Focus on and be organized to include more elaborate, complex, and in-depth study of major ideas, key concepts, and themes that integrate knowledge within and across disciplines.
- Build an extension of core learning, using both acceleration and enrichment strategies. Streamline curriculum that the student can master quickly.
- Encourage exposure to, and selection and use of varied, challenging and specialized resources.
- Provide opportunities for students to recognize complex relationships and arrive at sound generalizations.
- Stress higher-level thinking, creativity, and problem-solving skills.
- Set high standards that demand rigorous expectations for student work and performance demonstration.

➤ Instruction

- Promote in-depth learning and investigation that deals with real life problems and issues.
- Select concepts and content that promote students' involvement as practitioners of the discipline.

- Allow for the development and application of productive thinking skills to enable students to reconceptualize existing knowledge and/or generate new understanding.
- Design the pace of instruction with the flexibility to match the student's ability, pre-assessment data, learning style, interest, and motivation.

➤ **Process**

- Provide students with the freedom to choose topics to study and the methods to use in manipulating and transforming information.
- Promote independent, self-directed, and in-depth study.
- Encourage the application of advanced research and methodological skills.
- Focus on open-ended tasks.
- Provide opportunities for students to develop leadership and group interaction skills.
- Allow student-centered discussion, Socratic questioning, and seminar-type learning.

➤ **Product**

- Encourage the development of products that challenge existing ideas and produce new ones.
- Incorporate the application of discipline methodologies in product development.
- Promote products that are comparable to those made by professionals in the designated field.
- Require that products of gifted students represent application, analysis, and synthesis of knowledge.
- Provide the opportunity to create products/solutions that focus on real-world issues.
- Establish high-level and exemplary criteria to assess student performance and products³.

³ Adapted from the work of Carol Tomlinson (2008-2013). Retrieved from <http://www.caroltomlinson.com/books.html>

Sample Tiered Lesson⁴

Subject: Social Studies Skill: Cultural Development Grade: 7

Level 1 – Make a power point that answers the following questions. Import illustrations, maps, or other graphics to enhance your presentation.

1. Name 3 powerful European countries that settled in North America in the 17th and 18th centuries.
2. Who were some of the major leaders from each of these countries?
3. Name some traditions that these settlers brought with them that still exist today.

Level 2 – How did the colonization of North America affect the culture that had already been established here? Use maps and other graphics to enhance your presentation. Share with the class using Power Point, a YouTube video, or another method that your teacher approves.

1. Describe 3 Native American tribes that inhabited the eastern part of North America during the 17th and 18th century.
2. Research to find maps that show where each tribe's territory was in 1600 and how that had changed by 1800.
3. Explain how the European settlers were able to take over land that had belonged to the Native Americans during this time.

Level 3 – Suppose our continent had been colonized from West to East instead of from East to West. Imagine the America that would exist today and present that in a creative and informative manner.

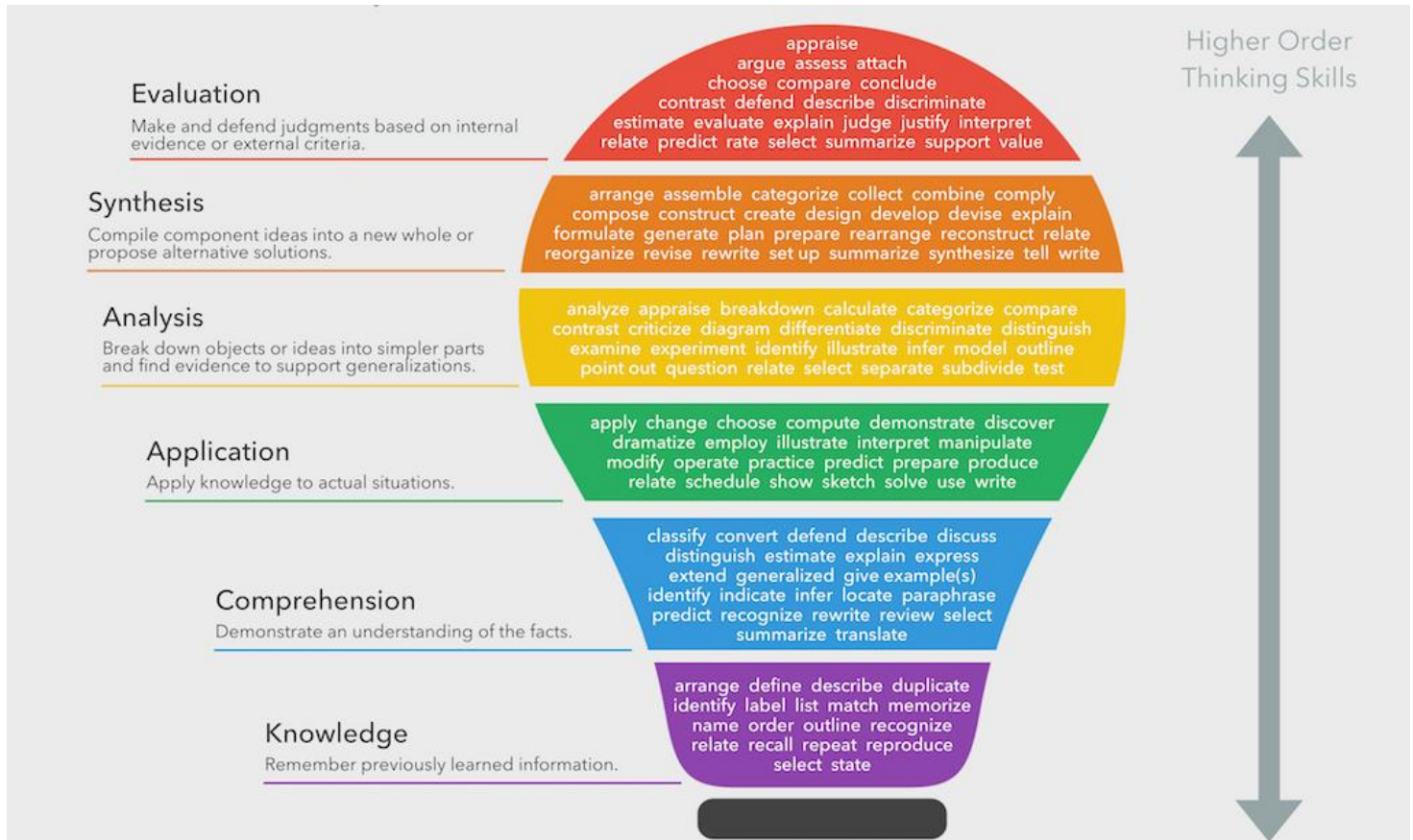
1. The settlers arrive from China and Japan. What traditions would they bring with them?
2. How do you think our government would be different today?
3. How would our daily life and American traditions be different today?

(Credit for Level 3 concept to Roger Taylor.)

⁴ Gregorio, M. (2018). *Sample Tiered Lesson*. Pennsylvania Association for Gifted Education with contributions from a Roger Taylor presentation.

Bloom's Taxonomy of Thinking

In creating learning experiences for gifted students, use Bloom's Taxonomy to guide your lesson planning. Aim for activities and assignments that require higher level thinking above the Application Level on the chart below⁵.



Types of Student Products Related to the Levels of Thinking

- Application
 - Recipe, model, artwork, craft, interview, demonstration, essay, project, report, etc.
- Analysis
 - Survey, questionnaire, research project, Venn diagram, experiment, logic puzzles, etc.
- Synthesis
 - Lesson plan, song, poem, story, ad, invention, scientific method, skit, role play, etc.
- Evaluation
 - Debate, persuasive speech, editorials, defense/verdict, set criteria, design rating scale, etc.

⁵ Source: Fractus Learning. (2018). *Bloom's taxonomy verbs*. Licensed under Creative Commons Attribution-ShareAlike 4.0 International License. Retrieved from <https://www.fractuslearning.com/blooms-taxonomy-verbs-free-chart/>

Conclusion

In conclusion, it is our sincere hope that this Handbook provides you with a knowledge base to get you started with understanding how to challenge students with gifted and talented learning needs within your classroom. There is continued research within the field of gifted education and we are learning new things about these students every day. If interested in learning more, please visit other resources on PAGE's website, along with the organizations listed below. Together, we can continue to make a difference in the education of our gifted and talented students across Pennsylvania.

Additional Resources

Belin-Blank Center for Gifted Education - <https://www2.education.uiowa.edu/belinblank/>

Center for Talented Youth at Johns Hopkins University - <https://cty.jhu.edu/>

Davidson Institute - www.davidsongifted.org

Duke University Talent Identification Program (DUKE TIP) – <https://tip.duke.edu/>

Hoagies Gifted Education: The “all things gifted” page - www.hoagiesgifted.org

National Association for Gifted Children (NAGC) - www.nagc.org

Pennsylvania Association for Gifted Education (PAGE) - www.giftedpage.org

Pennsylvania Department of Education (PDE) - www.pde.state.pa.us

Pennsylvania State Education Association (PSEA) - www.psea.org

Renzulli Center for Creativity, Gifted Education, and Talent Development - www.gifted.uconn.edu

Supporting the Emotional Needs of the Gifted (SENG) - www.sengifted.org