# BRANCHBURG TOWNSHIP PUBLIC SCHOOLS
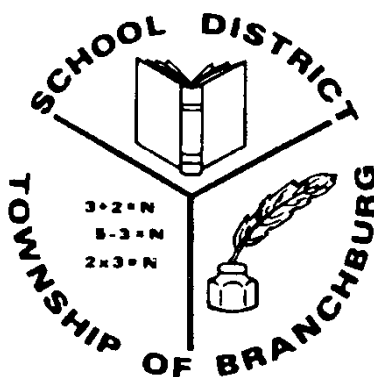
# K-8 GIFTED & TALENTED EDUCATION PROGRAM

*Revised for 2018-2019*

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# Gifted & Talented Education Program Overview

| PHILOSOPHY |
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*The Branchburg Township School District is committed to providing a quality educational program that supports the unique needs, talents, and abilities of its students and develops productive, independent, and lifelong learners. In partnership with the community, the Branchburg Township School District will ensure access to enriching and challenging learning experiences for all students so that each student's potential may be maximized. Essential to this philosophy is the practice of identifying services that promote gifted behaviors rather than labeling children as having reached a state of "being gifted."*

***To support this philosophy, the Branchburg Township School District establishes the following goals for the Grades 1-8 Gifted and Talented Education Program:***

- To provide a continuum of gifted education services that will strengthen the total school program, offer enriching and challenging learning opportunities for all students, and provide specialized learning experiences.

- To infuse into the general education program a broad range of activities for high-level learning that will challenge all students to perform at advanced levels, and provide extended opportunities, resources, and support in particular areas where student interest or talent is demonstrated.

- To promote achievement of students' best potentials and increased ability
    - To develop complex, higher-level cognitive processes for critical and creative thinking;
    - To develop problem-solving and decision-making skills;
    - To develop awareness and acceptance of themselves as unique individuals and valued members of their community;
    - To increase independence, individuality, and self-direction in learning.

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Through a productive, collaborative relationship among classroom teachers and other professionals and specialists, and by working in partnership with parents and the community, schools can create programming that will "bring out the best in every student" and, at the same time, serve the unique and specialized needs of students currently demonstrating gifted behaviors.

This "Levels of Services" approach is the framework around which the Branchburg Township School District's gifted education program is built. Elements of the Schoolwide Enrichment Model, and differentiated instruction in general education classrooms are integral to this overarching framework for gifted education in the Branchburg Township School District.

*Reference Board Policy and Regulation 2464 – Gifted and Talented Pupils (M)*

## Levels of Services

- *Services for ALL Students*
    - Maximize the potential of all learners to achieve rigorous standards through **differentiated instruction** in the general academic program.
    - Provide foundational skills for discovering interests and building talents with **clubs, contests, events and assemblies**.

- *Services for MANY Students*
    - "Invitational" services to engage talents and interests in which many students might be involved , but not every student will  participate.
    - Opportunities to participate are based on individual interests in **interest clusters and invitational clubs**.

- *Services for SOME Students*
    - Small group and individual opportunities that respond to the learning needs of specific students based on a demonstration of a high-level of academic achievement, creativity and task commitment.
    - The GATE program offers opportunities for high level challenges for these students.

Example: Pyramid of Enrichment at BCMS



**Pyramid of Enrichment at BCMS**

GATE Program

Interest Clusters
Invitational Clubs

Clubs
Differentiated Instruction

## Conception of Gifted Behavior

Giftedness is defined by the interaction of three traits: high-average ability, high level of task commitment, and a high level of creativity as depicted below in the model of Dr. Joseph Renzulli's "three-ring conception of giftedness."

This model emphasizes gifted behavior is the interaction of all three traits (above average ability, creativity, task commitment) and occurs In Certain People, At Certain Times, Under Certain Circumstances as depicted in the second Renzulli model below:
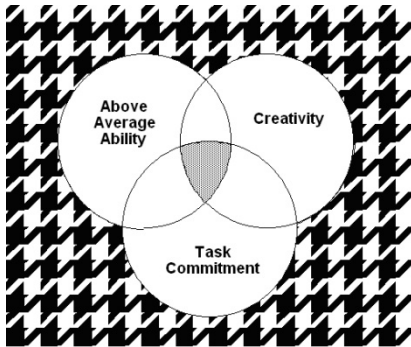


*The Three-Ring Conception of Giftedness: A Developmental Model for Creative Productivity,* by J.S.Renzulli, 1986, in Conceptions of Giftedness (p.66), by R.J.Sternberg and J.E.Davidson (Eds.), New York: Cambridge University Press.
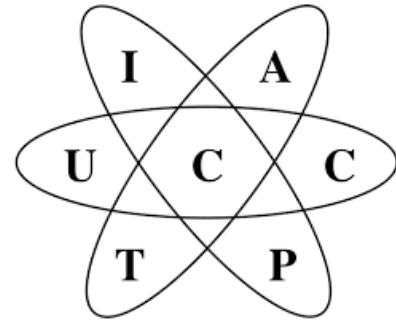
**These three traits of giftedness are further defined as follows:**

- **ABOVE AVERAGE to SUPERIOR ACADEMIC ABILITY:** General ability that spans abstract thinking, spatial relationships, word fluency, adaptability, and information processing

- **HIGH LEVEL OF TASK COMMITMENT:** Capacity for high levels of interest and persistence in accomplishing goals; determination and "stick-to-itiveness" when engaging in highly challenging experiences; aesthetic awareness and excellence in quality of work; and achievement coupled with self-confidence.

- **HIGH LEVEL OF CREATIVITY:** Fluent, flexible, original and elaborational thinking; openness to experience and receptive to new and different ideas and solutions; curious and adventuristic in thought or action; and sensitivity to detail and external stimuli.

**and demonstrated as:**

"…We believe gifted behaviors take place in certain people (not all people), at certain times (not all the time), and under certain circumstances (not all circumstances)" as described in The Schoolwide Enrichment Model by J.S. Renzulli and Sally M. Reis.

# INTEGRATION OF SCHOOLWIDE ENRICHMENT MODEL with
# LEVELS OF SERVICES APPROACH

The Branchburg Township School District's Gifted and Talented Program is viewed as part of the total educational experience provided to all students, not just those students identified as gifted and talented. The Schoolwide Enrichment Program (SEM) model supports this philosophy through delivery of three types of enrichment experiences, much in the same way as the "Levels of Services" approach by:

**1. Providing a broad array of enrichment experiences and opportunities for all students (SEM Type I Enrichment)**

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**Type I Enrichment – General Exploratory Activities**
*Invitation to explore new topics and ideas.*
Type I Enrichment consists of experiences and activities that are designed to bring the learner in touch with the kinds of topics and areas of study in which he/she may develop a sincere interest. Through involvement in Type I experiences, students explore and discover new ideas and interests, any of which may tap the learner's curiosity and motivation to pursue an interest or area at greater depth.

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**2. Differentiating instruction in the heterogeneous classroom that will develop for all students in all classrooms higher level thinking skills and processes. (SEM Type II Enrichment)**

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**Type II Enrichment – Group Training Activities**
*Training in research skills and thinking processes*
Type II training consists of materials, methods and instructional techniques that are concerned with the development of higher-level thinking and feeling processes. These processes include critical thinking, problem solving, inquiry training, divergent thinking, awareness development and creative or productive thinking. Type II thinking skills and processes are an integral part of the Core Curriculum Content Standards and standards-based instruction for all students, including cross-content skills for information and technological literacy. By integrating Type II skills into instruction of the curriculum, students are provided with various learning opportunities designed to improve their independent learning skills as well as the quality of their personal assignments, projects, and research.

In the gifted and talented pull-out classroom, Type II skills training is that "knowledge how" component of the curriculum for teaching and learning the process skill(s) students need to successfully engage in high-level learning activities and pursue independent investigations. Enrichment teachers plan lessons and units of instruction which integrate higher level thinking skills into the G&T curriculum.

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*The goals and purpose for integrating "TYPE II" training into instruction are as follows:*
- to develop general cognitive skills such as creative problem solving, critical thinking, and decision making.
- to develop affective skills such as sensing, appreciating, and valuing.
- to develop and practice a variety of *how-to-learn* skills, such as notetaking, interviewing, classifying or analyzing data, drawing conclusions, etc.
- to develop advanced research skills, such as using computer software, applications and on-line databases, researching directories, or reviewing abstracts.
- to develop written, oral, and visual communication skills, primarily directed toward having an impact upon appropriate audiences.

**3. Providing opportunities within and outside of the classroom for individual and small group investigations of real problems at an advanced level of depth and complexity. (SEM Type III Enrichment)** activities in which the student becomes an actual investigator of a real problem or topic by using appropriate methods of inquiry. The design, level of depth and complexity, and outcome of a Type III experience depends on the interest, ability, skills and task commitment of the individual student or students involved.

**Providing Type III Enrichment experiences as part of specialized services through a "pull-out" program for identified gifted and talented students in the G&T classroom.** Type III experiences engage students in individual and small group investigations of real problems follows the Board-approved curriculum designed specifically to meet the learning needs of these students.
In the Gifted and Talented pull-out program, students will be asked to pursue, under the direction of the enrichment teacher, identified investigations for specified goals. These investigations will provide extensions of already acquired content skills and will be delineated in a program plan for the student. Students will be required to keep a portfolio (collection) of their work and conduct their research investigations with the intention of developing a product or presentation designed to communicate and share what they have learned to an audience.

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**Type III Enrichment – Individual and Small Group Investigations of Real Problems**
*First hand investigation activities using authentic research skills and*
*leading to the development and presentation of creative products*
Type III experiences consist of investigative activities and productions in which the learner assumes the role of inquirer by selecting and participating in investigations that are centered around real problems. The purpose of providing Type III opportunities is to create situations allowing the student to think, feel and act like a practicing professional. The target participants are individuals and small groups of students who demonstrate sincere interests in particular topics or problems and who show a willingness to pursue these topics at advanced levels of involvement. In TYPE III activities, the student's role is as a first-hand inquirer. The role of the teacher changes from an instructor and disseminator of knowledge to a combination of coach, resource procurer, mentor, and, sometimes, a partner or colleague. TYPE III investigations can also match students with school-based or community mentors as an opportunity for real, in-depth exploration with experts in the field or area of study.

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*The goals and purpose for TYPE III experiences are as follows:*
1.  To provide opportunities in which students can apply their interests, knowledge, creative ideas, and task commitment to a self-selected problem or area of study.
2.  To acquire advanced level understanding of the knowledge (content) and methodology (process) that are used within particular disciplines, artistic areas of expression, and interdisciplinary studies.
3.  To develop authentic products that are primarily directed toward bringing about a desired impact upon a specified audience.
4.  To develop self-directed learning skills in the areas of planning, organization, resource utilization, time management, decision-making, and self-evaluation.
5.  To develop task commitment, self-confidence, feelings of creative accomplishment, and the ability to interact effectively with other students, teachers, and persons with advanced levels of interest and expertise in a common area of involvement.

# Program for Gifted-Identified Students in Grades 1-8

## OVERVIEW

Recognizing that a small portion of students are atypical, highly academic, creative and task committed individuals who require specialized learning experiences, the Branchburg Township Schools will provide opportunities to appropriately address the needs of these students.

Students who demonstrate gifted and talented behaviors require qualitatively differentiated educational experiences and services. This includes a well-constructed program that brings these students together and provides them with an intellectually stimulating and challenging curriculum and the opportunity to develop and apply advanced skills for creative and critical thinking.

The basic purpose for providing specialized services for this population is to assist these students in becoming self-directed learners who achieve excellence and reach their potential. Therefore, the Branchburg Township Gifted and Talented program should broaden and expand learning experiences for students through the development of decision-making, problem solving, critical and divergent thinking skills.

## PROGRAM GOALS

The specialized program for students identified as highly academic, creative and task committed will:

- Utilize multiple criteria to identify students.
- Provide classroom teacher training in how to recognize the traits of gifted behaviors and address these needs through differentiated instruction in the general academic classrooms.
- Support student responsibility, accountability, and eagerness for learning.
- Engage students in higher-order, critical and creative thinking.
- Provide opportunities for leadership and self-directed learning.
- Engage students in shared inquiry for investigation and problem solving.
- Enhance students' social, communication and presentation skills.
- Provide multiple opportunities for collaboration with their like peers.

*In addition to the above goals,*

**The specialized program for Gifted-Identified students in Grades 1-5 will:**

- Engage small groups of students in intensive learning experiences through standards-based, rigorous and relevant units of study that **supplement not supplant** the grade level curriculum and support students' unique learning needs.

**The specialized program for Gifted-Identified students in Grades 6-8 will**

- Provide opportunities for in-depth investigations, pursued individually or in small groups.

## PROCEDURES for IDENTIFICATION

The identification process includes three phases. An explanation of each phase follows.
1. General or Global Screening of all students
2. Gifted Identification Testing
3. Matching students with appropriate services OR Placement in the Gifted-Identified  Program

### PHASE 1 - GLOBAL SCREENING of ALL STUDENTS

#### Process and Procedures

- Student screening will occur annually in June and be completed by September.
- Student testing and identification will begin in June and be completed by December.
- Students new to the district or school are automatically screened upon entrance to the school.

The purpose of screening is twofold:
- to establish a pool of students who might qualify for gifted and talented services;
- to consider all students, ensuring that no student falls through the cracks.

To ensure that general screening is an inclusive process, as intended:
1) screening procedures are not more stringent than the identification procedures,
2) screening instruments and measures are those applicable to and readily available for all students,
3) all students are considered, including students new to the district, students whose primary language is not English, and students with disabilities

**Students are screened using measures of academic achievement and cognitive ability including classroom achievement and district assessments (DRA, MAP, InView).**

> **Classroom Performance:**

> **Academic Achievement:**
> - *For students entering grades 1-3:* DRA2 scores are **significantly above grade level** demonstrating above-grade level reading proficiency at higher levels of the text complexity grade bands (Common Core E/LA) or grade level text gradient (Fountas & Pinnell levels).
> - *For students entering grades 4-8:* NWEA Measures of Academic Progress (MAP) – for mathematics and reading: **Scores in the top 10% of the grade level.**

> **Cognitive Abilities scores**: Cognitive Skills Index or CSI, and Total Score percentile on *InView* (CTB/McGraw-Hill) will be included in screening CSI scores and total composite percentile scores in the 8th and 9th stanines.

## PHASE 2 – IDENTIFICATION TESTING AND EVALUATION:
### Process and Procedures

Students who meet the General Screening standards are invited to proceed to the next phase in the identification process for further testing and evaluation. Multiple measures are used to assess the areas of reasoning ability, task commitment, and creativity/creative thinking in order to identify students eligible for the "pull-out" gifted and talented programs in Grades 1-8.

**Multiple Criteria specific to the District's definition of gifted are considered and include Quantitative and Qualitative Measures of high/above average general ability, high level of creativity, high level of task commitment.**

- The student's parent(s) or legal guardian(s) is notified by a letter that their child qualifies for further testing and evaluation, and permission to administer tests is requested.

- With parent permission, identification testing is administered and additional data is gathered using these measures of cognitive ability, creativity and task commitment:

  - **Norm-referenced testing considered a valid and reliable measure of reasoning ability and aptitude, and used widely for G&T identification for students <u>entering</u>:**
    - Grades 1-3 SAGES-2 Reasoning Subtest
    - Grades 4-5 Raven Standard Progressive Matrices
    - Grade 6 SAGES-2 4-8
    - Grades 7-8 Raven Advanced Progressive Matrices

  - **Norm-referenced testing considered a valid and reliable measure of creativity**
    - Profile of Creative Abilities

  - **Teacher Input Checklist** of observed gifted behaviors: motivational characteristics (task commitment), creativity characteristics (creativity), and learning characteristics (superior/above average ability) for each student.
    - Teacher rating scale adapted from the Renzulli-Hartman Teacher Checklist

- Based on identification testing scores and data collection, eligible students are identified for placement in a specialized gifted and talented program by placing in the high, above-average to superior range on the scoring matrix.

- Parents are notified regarding their child's eligibility or ineligibility. Parent permission is required for placement of an eligible student in the gifted and talented program.

### PARENTAL APPEALS PROCESS

If a student is found ineligible for services, parents have the right to appeal the decision and give permission for additional testing. Appeals students are administered the OLSAT-8 and must score at the 97th percentile or higher to be eligible for the gifted program using the appeals process.

### PROCEDURES FOR NOMINATING STUDENTS FOR THE GIFTED PROGRAM

Teacher, parent and student self-nominations for screening can be submitted for consideration between January and June for the following year's screening and identification process. Nominators must complete a nomination form and submit the completed form to the Gifted/Talented teacher in the student's school. Submitting a nomination does not mean automatic entrance into the gifted-identified program. Students will be evaluated, using screening criteria. Students who meet the General Screening standards are invited to proceed to the next phase in the identification process for further testing and evaluation.

### PHASE 3: MATCHING STUDENTS WITH PROGRAMS AND OPPORTUNITIES

o Gifted-identified students are eligible for the gifted & talented "pull-out" program.

o Students who were found not eligible for the gifted program but who would benefit from differentiated instruction in the regular classroom are brought to the attention of their classroom teachers. The GT teachers collaborate with classroom teachers and other school professional staff to help them design differentiated instruction to support the needs of gifted-identified and academically talented/high achieving students in the classroom.

o Students who were found not eligible for the gifted program will also have opportunities to develop talents through programs and experiences matched to their area(s) of talent. Opportunities include, for example, Interest Clubs, enrichment activities and co-curricular programs ranging from opportunities open to all students to more competitive, "invitational" opportunities requiring demonstrated competencies.

### CONTINUED PLACEMENT OF STUDENTS IN THE GIFTED PROGRAM

Students identified for and placed in the gifted and talented pull-out program remain in the program while attending their school.

Students identified for the gifted and talented program are re-screened along with all grade level students **at the end of third grade** when they transition from the primary grades to the elementary school and, again, **at the end of fifth grade** when they transition from the intermediate school to the middle school.

In accordance with Board policy and regulations, a student may be withdrawn from the gifted and talented program when:
❑ The student's academic record indicates a decline in classroom OR pull-out program performance,
❑ The student wishes to withdraw and his/her parent(s) or legal guardian(s) consents to withdrawal, or
❑ The student's parent(s) or legal guardian(s) requests withdrawal.

Parents will be notified of the final decision to withdraw a student from the gifted program. A copy will be kept on file by the GT teacher, building principal and Director of Instructional Services.

# Gifted/Talented Teacher's Role and Responsibilities

| PRIMARY ROLE:<br>*DIRECT SERVICES TO STUDENTS* | SECONDARY ROLE:<br>*PROVIDE/FACILITATE SERVICES* |
|---|---|
| **Direct Student Contact /<br>Face-to-Face Activities** | **Services Through Arrangements with<br>Other Persons & Organizations** |
| • Screening, Identification & Placement of G&T students<br>• Direct teaching, administration & management of G&T pull-out program<br>• Assessment/evaluation and monitoring progress of G&T students; profiles, portfolios, progress/ evaluation reports<br>• Coordination and delivery of services to address student needs outside of the general academic classroom setting; for example, interest & talent based clubs/clusters, student initiated interests<br>• Instructional planning for individual, small group, and whole class teaching in the GT pull-out classes | • Collaborating, planning, coaching, supporting student activities and projects in Level I, II and III programs and services (school, grade-level or classroom, student groups)<br>• Collaborating with teachers on strategies for differentiating instruction of gifted and high-achieving students in the general academic classroom.<br>• Facilitating contacts and connections with community resources, persons or programs<br>• Providing opportunities and, in some cases, coordinating local/state/national competitions and contests |
| **ON-GOING ROLE:<br>Resource and Leadership Responsibilities** ||
| Articulate and communicate with classroom teachers and grade level teams | Providing opportunities for demonstration teaching, modeling and/or peer coaching |
| Review / Evaluate and Design GT Materials | Staff Development to build awareness and understanding of gifted behaviors |
| Evaluate and monitor program and GT opportunities | Communications / Public Relations |
| Other Assigned supervisory duties (e.g. lunch/bus duty) and Professional Responsibilities as defined by the NJ Standards for Professional Teachers and evaluation of professional staff ||

## How Classroom Teachers and GT Teachers Collaborate and Support Talent Development

| Classroom Teachers | GT Teachers |
|---|---|
| • Talent "spotters" who search actively for students' strengths, talents and sustained interests. | • Coordinate or facilitate staff development to address professional needs regarding talent development programming and services. |
| • Differentiate instruction and provide learning experiences that are varied and differentiate for content, process and product.<br>• Design and use authentic learning experiences and activities in the classroom. | • Collaborate with teachers, grade and school level planning teams in supporting the needs of high achieving students. |
| • Engage students in productive thinking and application of critical and creative thinking skills. | • Assist and support curriculum planning and strategies for differentiation. |
| • Collaborate with other professionals on designing and planning exploratory and GT experiences for the classroom and school (Level I, II, III services) | • Initiate, coordinate, support and/or facilitate planning for Level I and II services.<br>• Lead, network and support planning and programming for Level III services. |

## Instructional Time and Schedule

The gifted and talented teacher will provide instruction of identified gifted students in small groups through a pull-out program scheduled as follows:

- **Grades 1-3:** Students meet two hours per cycle week with the Gifted & Talented teacher.

- **Grades 4-5:** Students meet two hours per cycle week with the Gifted & Talented teacher.

- **Grades 6-8:** Students are scheduled with the Gifted & Talented teacher during grade level Resource Periods

Across all grades, the GT Teachers will maintain on-going communication and articulation with their students' classroom teachers to articulate about core curriculum goals and to discuss each student's progress and performance in the general academic and gifted programs.

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## Program Start Up and End-of-Year Tasks

GT teachers will utilize the first 3-5 days of school in September as follows:

- Screening/identification testing and evaluation of any new/transfer students who registered in the district during the summer.

- Complete appeals testing per parent request for ineligible students from June identification process

- Grades 1-8: Set up student files/records and portfolios

- Attend grade-level team meetings, meetings with classroom teachers to share student rosters and coordinate a schedule for pull-out classes

- Meet with the building principal to develop the GT teacher's schedule, including schedule for pull-out classes, and to review school-based roles and responsibilities

- Complete any tasks not finished at the end of the previous school year (e.g. development of individualized program plans for identified students; collaborative planning with classroom teachers and other school professionals utilizing the continuum of services approach for supporting students' differentiated needs and interests).

- Prepare for start of the pull-out/resource period program—materials, resources, classroom set-up. Classes are to begin no later than the second full week of school in September.

The GT teachers begin the program by assessing students' strengths, interests and learning styles so that they can better guide each student through planned learning activities and identify additional experiences matched to the student's profile. A portfolio is set up for each student. Portfolios serve to document and

record each student's progress and performance and could include learning profiles, samples of student work, mid- and year-end Student Evaluation Reports, and student self-assessments and reflections. Portfolios will be maintained and "travel" with the student for each year the student remains in the program.

The program will conclude by the first week of June but no later than the second week of June. If necessary, teachers can schedule 1-2 additional classes during the first week of June to finish end-of-program student tasks, including student self-assessments and program evaluations, and for students in grades 6-8 to finalize their electronic portfolios.

The month of June will be used to complete General Screening and Identification of students; to ensure transfer of student portfolios to the next school; to complete and submit reports, rosters and copies of student evaluation reports to the principal and Director of Curriculum and Instruction; and to begin pre-scheduling and program preparation for the upcoming school year.

## Curriculum and Instruction for Gifted-Identified Students – Grades 1-8

**The GT teacher is responsible for delivery of the instructional program and curriculum for gifted and talented students in the pull-out/resource period program. The GT teacher will support the unique and specialized needs of gifted students in this program by:**

- Using varied instructional strategies to present content material that is related to broad-based issues, themes, or problems and aligned with the New Jersey Core Curriculum Content/Common Core Standards.

- Integrating multiple disciplines and essential questions into the study area.

- Developing the student's independent and self-directed study and research skills, and integrating higher level thinking and creative thinking skills into the curriculum.

- Focusing on open-ended tasks and solving challenging problems.

- Providing opportunities for collaboration during different aspects of the learning process.

- Providing for in-depth learning of a topic or area of investigation selected by the student with the guidance of the GT teacher.

- Providing opportunities for students to present to authentic audiences.

- Encouraging self- reflection and evaluation.

- Assessing and evaluating pupil progress and performance, and reporting progress to parents.

# GIFTED AND TALENTED EDUCATION PROGRAM: LEARNING DOMAINS

| | |
|---|---|
| *1.* **Fluency** | The ability to produce many ideas, responses, or questions. |
| *2.* **Flexibility** | The ability to produce a variety of different ideas, questions or solutions, to seek many directions or alternatives.  To adapt common objects to fit a variety of approaches. |
| *3.* **Originality** | The ability to think of novel, unique expressions or solutions, to have clever ideas rather than common or obvious ones; to express ideas in new ways. |
| *4.* **Elaboration** | The ability to add or elaborate upon ideas or products; to stretch or expand ideas and embellish ideas to make them more interesting; to add details to improve ideas. |
| *5.* **Imagination** | The ability to visualize possibilities, picture new objects, and form mental pictures. |
| *6.* **Analysis** | The ability to break elements, relationships and principles into their basic parts; to classify, organize, categorize and take apart various types of information. |
| *7.* **Synthesis** | The ability to combine parts together to create a whole; to rearrange the pieces or elements to create a pattern or structure not there before.  Products of synthesis are new and unique. |
| *8.* **Evaluation** | The ability to make judgments for a given purpose.  These judgments are based on criteria chosen specifically for the task.  The emphasis is on evaluating a variety of alternatives before selecting and implementing a solution. |
| *9.* **Problem Solving** | The ability to develop a process that will enable to child to work from a "problem" to an effective "solution".  The emphasis is on generating and evaluating a variety of alternatives before selecting and implementing a solution. |
| *10.* **Decision Making** | The ability to evaluate data carefully before making judgments; to consider possible solutions from a variety of points of view; to examine conditions that would affect the solution; to evaluate decisions based on personal needs and values. |
| *11.* **Self-Awareness** | The ability to develop a positive self-concept, to understand and accept one's own feelings, capabilities and limitations; to demonstrate respect and acceptance of oneself and others; to develop and maintain positive social relationships; to make a positive contribution to society. |
| *12.* **Communication** | The ability to modify and adjust expression of ideas for maximum reception, to find a variety of alternate ways to express ideas; to be able to express the relationship of personal thoughts, ideas and experiences to those of other people. |
| *13.* **Self-Directed Learning** | The ability to be an active participant in the process of selecting subject matter; to create goals based on current interests, needs, and student preferred learning style; and to cooperate in evaluating the final product based on pre-determined criteria. |
| *14.* **Research Skills and Strategies** | The ability to formulate a hypothesis, to develop a systematic plan; to gather, manipulate, use, summarize and evaluate data, and to report the results; to become aware of the existence, nature and function of various reference materials with emphasis on non-book materials and first hand gathering.  Various types of research include historical development, descriptive, case and field, correlation, action, and experimental. |

## Curriculum Overview and Framework

**The K-8 gifted program and curriculum is a well-articulated sequence and progression of teaching and learning that is developed or scaffolded from grade to grade, and school to school.** This is emphasized in the instruction of gifted students at each grade level that progresses from teacher-directed experiences for "exploring and discovering" in grades 1 and 2; to teacher-guided experiences for "designing and investigating" in grades 3 and 4; to teacher-guided and student-directed experiences in grade 5; and, finally, to student self-selected investigations, and independent study in middle school.

**The gifted program curriculum in Grades 1-5** is designed to engage students in exploring essential topics and concepts from core curriculum content disciplines in greater depth and complexity beyond content units in the grade level curriculum. Instruction emphasizes student involvement in inquiry, research, investigation, problem finding and creative productivity. Teaching and learning is approached through the context of a problem to solve or situation to explore and investigate, aligned with the anchor materials identified for instruction of grade level units of study.

**The gifted program curriculum in Grades 6-8** is designed to engage students in self-selected independent study investigations separate from the grade-level core curriculum program. The goal of the middle school program for gifted-identified students is twofold: (1) to challenge, stretch and maximize students' critical and creative thinking abilities and engage in more advanced level research investigations; and (2) to develop their skills as future leaders who, because of their high level of talent and "giftedness" have the capacity to impact change and make a difference on many levels.

**The gifted program curriculum was developed using the *Understanding by Design* framework that is used for all district curriculum. The curriculum is aligned with the New Jersey Core Curriculum Content and Common Core Standards. The curriculum units emphasize broad themes and essential concepts drawn from the core curriculum content areas or disciplines.** In *The Disciplined Mind: What All Students Should Understand* and *Five Minds for the Future,* Howard Gardner explains that all disciplines embody distinct ways of thinking about the world. Gardner stresses that students need to master disciplinary thinking by developing four key capacities for "becoming experts" in the discipline or field of study.

1. **Understanding the Purpose of the Disciplinary Expertise** (Understanding the skills and processes and "doing the work" of historians, scientists, mathematicians, inventors, and so on)

   *For example,* students of history understand that the purpose of this discipline is to understand past human experience—not to make predictions but to meet the present and the future in informed ways.

2. **Understanding Essential Knowledge Base** (concepts and relations central to the discipline which can be applied in other contexts)

   *For example,* students need to look at the interaction between technology and society to determine whether or not they deem a technological development to be "progress" or "decline."

3. Understanding Inquiry Methods and Thinking Processes that Drive the Discipline

   *For example,* the core curriculum content standards include standards for content knowledge AND for skills and processes for learning, understanding and investigating discipline content.

4. Understanding Forms of Communication (forms and genres of communication in a discipline)

   *For example,* historians may prefer narratives as the best fit for communicating their work, whereas scientists prefer data-driven research reports.

# Curriculum Maps

# Pacing Charts

# Instructional Resources

| Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 | Grades 6-8 |
|---|---|---|---|---|---|
| *Exploring and Discovering* | | *Designing and Investigating* | | *Quests and Pursuits* | |
| **Exploration** | **Discovery** | **Invention and Innovation** | **Preserving Our Past, Protecting Our Future** | **Quest for Discovery** | **Self-Discovery and Independence** |
| **Exploring People, Places and the World Around Me** *Fairy Tales from Around the World* | **Discovering Gifts & Treasures** *Treasure Boxes* (GEMS) *Who Borrowed Mr. Bear?-A Mystery for Young Detectives*(GEMS) | **TYPE II Training and Investigations** **Becoming Critical Questioners:** *Unraveling the Mystery of the Moli Stone* (M³) **Can Unsolved Mysteries be Solved?** | **Investigating Environmental Preservation** *Thinking Inside the Box: Designing Plant Packages* (EiE) *Water, Water Everywhere: Environmental Engineering and Designing Water Filters* (EiE) **OR** *Just Passing Through: Bioengineering and Designing Model Membranes* (EiE) **Investigating Historic Preservation** | **Expeditions and Voyages Introduction to Inquiry:** *"Houston, We Have a Problem"-What Would Scientists Do? A Scientific Convention on Oobleck* (GEMS) **Independent Quests and Pursuits** I/WE-Search Research Investigations **OR** GEMS: Environmental Detectives GEMS: Messages from Space | *Making Change* *Using Talents* *Becoming Leaders* **Independent Investigations and Outcome Products and Performances** |
| **Exploring the Inventive Spirit** *Work in Progress: Chemical Engineering and Improving a Play Dough Process* (EiE) **Exploring the Natural World** **The Power of the Wind-***Catching the Wind: Mechanical Engineering and Designing Windmills* **Shadows and Light-***Me and My Shadow-The Shadowbox Theater* | **Discovering Ancient Civilizations and What We Can Learn from Them** *Ancient Civilization and Culture of Egypt* *Investigating Artifacts Making Masks, Creating Myths, Exploring Middens* (GEMS) The Great Wall of China: *A Sticky Situation: Materials Engineering and Designing Walls* **OR** Ghana Drumming: *Sounds Like Fun: Seeing Animal Sounds-Sound and Acoustical Engineering* (EiE) | **Innovators and Innovations** *Exploring Leonardo DaVinci* **People Puzzles Research Project** (A collaborative project with grade 3 & 5 GT students) | | | |
| | | **Solving Problems with New Ideas** Inventing and the Engineering Design Process: *To Get to the Other Side: Balance, Forces and Civil Engineering (EIE)* | **Investigating Issues & Solutions:** Mini-I-Search Investigations | *America Dreams: Living History Project/Investigating Immigration* *The Oral History Project* | |

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| Grade 1 | THEME: *Exploring* (Total Sessions: Approximately 45-50) | | | |
|---|---|---|---|---|
| | **Units of Study** | **NJCCCS and Grade Level Curriculum Connections** | **Instructional Resources** | **Timeframe** |
| Program Introduction and Set-Up | Set up student portfolios, interest explorations, overview | | Notebooks, folders Student interest-a-lyzer tasks | 1-2 sessions |
| *Exploring People, Places and the World Around Me* | **Fairy Tales from Around the World** | Common Core English/ Lang. Arts NJCCS Social Studies 6.1 | Teacher Developed Unit | 5-6 sessions |
| | *Primary Science with a Fairy Tale Twist: The Simple Story of the 3 Pigs & the Scientific Wolf* | NJCCCS Science 5.2 Physical Science [Related Grade Level Science Curriculum: *Balls and Ramps*] | Fetzner, M. (2000). *Primary Science with a Fairy Tale Twist: The Simple Story of the 3 Pigs & the Scientific Wolf.* Marion, IL: Pieces of Learning. | 8 Sessions |
| *Exploring the Inventive Spirit!* | **Exploring Inventors and Innovators** | NJCCCS Science 5.1-Science Practices NJCCCS 8.2 Tech. Ed/Engineering | Teacher Developed Unit | 6-7 sessions |
| | Work in Progress: Improving a Play Dough Process-Chemical Engineering | Science: 5.2 Physical Science/ Chemistry-Matter [Related Grade Level Science Curriculum: *Solids & Liquids*] | *Engineering is Elementary* curriculum-Teacher's Guide *Michelle's MVP Award*-Student Book | 7-8 sessions |
| *Exploring the Natural World* | The Power of the Wind— Catching the Wind: Mechanical Engineering-Designing Windmills | Science-5.4 Earth Systems Science [Related Grade Level Science Curriculum: *Air and Weather*] NJCCCS 8.2 Tech. Ed/Engineering | *Engineering is Elementary* curriculum-Teacher's Guide *Leif Catches the Wind: A Mechanical Engineering Story* – Student Book | 10 sessions |
| | OPTIONAL unit extension: *Kite Explorations –Go Fly a Kite!* | NJCCCS 8.2 Tech. Ed/Engineering NJCCCS Visual/ Performing Arts 1.1, 1.3 | NSTA: *Science and Children* | *Optional* |
| | OPTIONAL Independent Investigations: Make Your Own Weather Station | NJCCCS Science 5.4 Earth Science [Related Grade Level Science Curriculum: *Air and Weather*] | | *Optional* |
| | **Exploring Shadows and Light** *Me and My Shadow & The Shadowbox Theater OR* Teacher Developed Unit | NJCCCS Science-5.4 Earth Systems Science; Visual/Performing Arts 1.3; Common Core English/Lang. Arts | Teacher Developed Unit | 8-9 sessions |

| Grade 2 | THEME: DISCOVERING (Total Sessions: approximately 45-50) | | | |
|---|---|---|---|---|
| | **Units of Study** | **NJCCCS and Grade Level Curriculum Connections** | **Instructional Resources** | **Timeframe** |
| Program Introduction and Set-Up | Set up student portfolios, interest explorations, overview | | Notebooks, folders Student interest-a-lyzer tasks | 1-2 sessions |
| *Introduction to theme of Discovering* | Discoveries | | Teacher developed unit | 2 sessions |
| *Discovering Gifts and Treasures* | **Discovering Gifts and Treasures PART I: Gifts** | Common Core E/LA NJCCCS Comprehensive Health (Integrated Skills; Wellness) | Teacher Developed Unit | 9 sessions |
| | Bridge to engineering/ problem solving unit: Mystery Festival-*Who Borrowed Mr. Bear?* | NJCCCS Science 5.1 Science Practices; 9.1 -21st Century Life & Careers | GEMS curriculum: *Mystery Festival* | 6 sessions |
| | **PART II: Treasures** | Common Core Mathematics | *GEMS Curriculum: *Treasures* | 7 sessions |
| *Discovering Ancient Civilizations and What We Can Learn from Them* | **Discovering Ancient Civilizations:** PART I-Ancient Egypt (Independent Project: King Tut Museum) | | Teacher developed unit | 7-8 sessions |
| | PART 2: Investigating Artifacts: Making Masks, Creating Myths, Exploring Middens | Common Core Mathematics Visual/Performing Arts 1.0 (History/Production) Common Core E/LA NJCCCS Social Studies (Historical Thinking) | GEMS curriculum*: Investigating Artifacts - Making Masks, Creating Myths, Exploring Middens* | 6-7 sessions |
| | Ancient Civilizations/Cultures: The Great Wall of China—A Sticky Situation: Materials Engineering-Designing Walls | NJCCCS Science-5.2 Physical Science (Properties of Matter) STC: *Solids and Liquids* 8.2 Technology/Engineering | Engineering is Elementary curriculum-Teacher's Guide *Yi Min's Great Wall*-Student Book | 7-9 sessions |
| | OPTIONAL/ALTERNATIVE: The Sounds of Ghanan Drumming Sounds Like Fun: Seeing Animal Sounds-Sound and Acoustical Engineering | NJCCCS Science 5.2-Physical Science STC: *Sound* 8.2 Technology/Engineering | Engineering is Elementary curriculum-Teacher's Guide *Kwame's Sound: An Acoustical Engineering Story*-Student Book | *9 sessions* |

| Grade 3 | | THEME: *Designing and Investigating* (Total sessions: approximately 55-60) | | |
|---|---|---|---|---|
| **Units of Study** | | **NJCCCS and Grade Level Curriculum Connections** | **Instructional Resources** | **Timeframe** |
| Program Introduction and Set-Up<br><br>Introduction to Unit Theme and Topics | Set up student portfolios, interest explorations, overview | **NJCCC/Common Core E/LA standards (grade 3)**<br><br>**NJCCCS 9.1 21st Century Life & Careers** | Notebooks, folders<br>Student interest-a-lyzer tasks<br>Centers, Bulletin Board | **3-5 sessions** |
| **TYPE II Training and Investigations** | **TYPE II Training and Investigations**<br><br>**Becoming Critical Questioners:**<br>*Unraveling the Mystery of the Moli Stone* (M³)<br><br>**Can Unsolved Mysteries be Solved?** | **NJCCC/Common Core Mathematics standards (grade 3)**<br><br>**8.2 Technology/Engineering**<br><br>**NJCCCS-Science:**<br>5.1 Science Practices<br>5.2 Physical Sciences<br>5.4 Earth Systems Sciences | DIGGING FOR CLUES: UNRAVELING ANCIENT MYSTERIES Project M³ : Mentoring Mathematical Minds-Level 3 *Unraveling the Mystery of the Moli Stone* (Place Value/Numeration) Student's Mathematician's Journals, Teacher Guide | **10-12 sessions** |
| **Innovators and Innovations** | **Exploring Leonardo DaVinci**<br><br>**People Puzzles Research Project**<br><br>**(a Collaborative Cross-Grade Project with 5th grade GT students)** | ————<br><br>-EiE unit supports Physical Science strand and Indicators identified in Grade Level curriculum unit for *Motion and Design*<br><br>-Invention Unit Supports Grade Level Curriculum Unit: *Motion and Design;* | *Exploring Leonardo* website<br><br>**Nonfiction:**<br>•Who Was Leonardo Da Vinci? (Roberta Edwards)<br>•Leonardo DaVinci (Kathleen Krull)<br>•Mistakes That Worked: 40 Familiar Inventions and How They Came to Be (Charlotte Foltz)<br>•What a Great Idea! Inventions the Changed the World (Stephen M. Tomecek) | **14-17 Sessions** |
| | | | People Puzzles Research materials | **8 Sessions** |
| **Inventing and the Engineering Design Process** | **Solving Problems with New Ideas**<br>*To Get to the Other Side: Designing Bridges - Balance, Forces and Civil Engineering (EiE)* | **-Unsolved Mysteries unit** supports Earth Systems Sciences strand and Grand Level Curriculum unit for *Astronomy* | Engineering is Elementary curriculum: Teacher's Guide and Student Book<br>*Javier Builds a Bridge* | **12-15 sessions** |

| Grade 4 | | THEME: *Designing and Investigating-Preservation* (Total sessions: approximately 50-59) | | |
|---------|---|------------------------------------------------------------------------------------------|---|---|
| **Units of Study** | | **NJCCCS and Grade Level Curriculum Connections** | **Instructional Resources** | **Timeframe** |
| Program Introduction and Set-Up | Set up student portfolios, interest explorations, overview | **NJCCCS 9.1  21st Century Life and Careers** | Notebooks, folders<br>Student interest-a-lyzer tasks | **3 sessions** |
| Introduction to Unit Theme and Topics **Preserving Our Past and Protecting Our Future** | **Preservation Unit of Study** | **NJCCCS 8.1 Educational Technology** | Centers, Bulletin Board<br><br>Teacher designed and selected materials and resources that support development and application of advanced language arts literacy skills and strategies | **2-3 sessions** |
| **Environmental Preservation** | **Environmental Preservation** | **NJCCCS-Science** Standards/ Strands- and identified indicators for:<br>    1.1  Science Practices<br>    5.3 Life Sciences<br>    5.4 Earth Systems Sciences<br><br>**NJCCCS-Social Studies** Standards/ Strands and identified indicators for<br>6.1 US History<br>6.3 Active Citizenship<br><br>**NJCCCS 8.2 Technology Education** | Teacher designed and selected materials and resources that support development and application of advanced skills and knowledge in science and social studies | **12-14 sessions** |
| | Exploring Tools and Resources for Environmental Preservation/ Protection in the Future: | | | |
| | *Thinking Inside the Box: Designing Plant Packages* (EiE) | | *Engineering is Elementary* **unit:** *Thinking Inside the Box: Designing Plant Packages* Teacher's Edition, Student Book | **9-11 sessions** |
| | *OPTIONAL* *Just Passing Through: Bioengineering and Designing Model Membranes* (EiE)<br><br>*Water, Water Everywhere: Environmental Engineering and Designing Water Filters* (EiE) | | **OPTIONAL** Bioengineering and Designing Model Membranes [Corresponds with grade 4 science curriculum: Animal Studies unit, and Grade 4 social studies-geography strand]]<br><br>Water, Water Everywhere: Environmental Engineering and Designing Water Filters [Corresponds with grade 4 science curriculum: Land and Water unit; and Grade 4 social studies-geography strand] | |
| **Historical Preservation** | **Historic Preservation** | **NJCCCS-Social Studies** Standards/ Strands and identified indicators for:<br>6.1 US History<br>6.3 Active Citizenship | Teacher designed and selected materials and resources that support development and application of advanced skills and knowledge in social studies | **12-14 sessions** |
| **Application of Skills** | **Independent/Group Projects:** | **Common Core E/LA** | Teacher designed, selected and guided | **12-14 sessions** |

| and Knowledge | Historical or Environmental Preservation/Protection | NJCCCS 8.1 Educational Technology | instruction, resources and materials for student selected research investigation projects | |
|---|---|---|---|---|

| Grade 5 | | THEME: *QUESTS and PURSUITS-Quest for Discovery* (Total Sessions: approximately 50-59) | | |
|---|---|---|---|---|
| **Units of Study** | | **NJCCCS and Grade Level Curriculum Connections** | **Instructional Resources** | **Timeframe** |
| Program Introduction and Set-Up | Interest and talent inventories; set up portfolios, journals, contracts | **NJCCCS 9.1 21st Century Life and Careers** | Notebooks, folders | **2-3 sessions** |
| *Expeditions and Voyages: Group Investigations* | **Introduction to Inquiry:** *Houston, We Have a Problem: What Would Scientists Do? –A Scientific Convention on Oobleck (GEMS)* | **NJCCCS-Science** Standards/ Strands- and identified indicators for: 1.2 Science Practices 5.2 Physical Science 5.3 Life Sciences 5.4 Earth Systems Sciences | GEMS: Oobleck | **5-6 sessions** |
| | **Student/Teacher Choice:** | | | **15-18 sessions** |
| | Environmental Detectives (GEMS) **OR** | | Environmental Detectives (GEMS) | |
| | Messages from Space: Exploring the Solar System and Beyond (GEMS) **OR** | **NJCCCS 8.2 Technology Education** | Messages from Space: Exploring the Solar System and Beyond (GEMS) | |
| | Teacher designed group investigations using "I/WE-Search" model | | Teacher designed/published group investigation unit I-Search Manual | |
| *America Dreams: Living History Project/Investigating Immigration* | **America Dreams**-skills of historical research | **Common Core E/LA** **NJCCCS 8.1 Educational Technology** **NJCCCS-Social Studies** Standards/ Strands and identified indicators for 6.1 US History 6.3 Active Citizenship | America Dreams from the American Memory Collection, Library of Congress | **28-33 sessions** |
| *The Oral History Project* | **The Oral History Project** | | The Oral History Project Manual | |

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<tr><td align="center"><em>Guiding Questions</em></td><td align="center"><em>Guiding Questions</em></td><td align="center"><em>Guiding Questions</em></td><td></td></tr>
<tr><td>Making Change: <em>We Are Inventors and Innovators</em><br><br>What is my role?<br>How can I influence change?</td><td>Unique but United: <em>Standing Out While Fitting In</em><br><br>How can I use my talents to find solutions to solve problems?<br>How do I use my talented to make an impact?</td><td>Power: <em>Handle With Care</em><br><br>How might my talents make me a leader?<br>How do I effectively take the lead?</td><td><strong>MP 1-2</strong></td></tr>
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# Branchburg Township Public Schools
## K-8 "Type II" Thinking Skills Scope and Sequence

The following pages provide a delineation of the cognitive, affective, and academic skills that students are accountable for learning and applying to their scholastic lives, from kindergarten through grade eight. Next to each, it has been indicated when the student would be expected to begin instruction **(B),** continue to develop instruction **(D),** and become secure in this skill or content **(S).** Prior to reading the chart, please review the definitions of each of these levels of instruction as to further understand the matrix.

| Level of Instruction | Description |
|---|---|
| **Beginning** | The teacher provides direct instruction on the skill/strategy, meaning that the teacher models and illustrates the task through multiple exposure and varied lessons. Based upon the needs of the students within the class, the teacher may provide whole class or small group instruction on the skill/strategy. |
| **Developing** | The teacher provides scaffolded (guided) instruction, meaning that they support the students as much as is needed for them to be successful. Once the child has success with the skill/strategy, the teacher gradually provides less support and gives the student more responsibility in accomplishing the task. |
| **Secure** | The student is successful in practicing the skill/strategy with little to no teacher guidance, demonstrating that the student is secure in the task. The teacher may provide further feedback and multiple opportunities for application of the skill, but the student remains successful in utilizing the skill/strategy. Application of the skill/strategy by the student demonstrates their understanding and growth as an independent learner. |

# K-8 Applied Thinking Skills Scope & Sequence
(based on Schools for Talent Development: A Practical Plan for Total School Improvement, Joseph S. Renzulli, 1994)

**COGNITIVE TRAINING**

| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| **Analysis Skills** | | | | | | | | | |
| 1. Identifying characteristics | D | D | D | D | S | | | | |
| 2. Recognizing attributes | | B | D | D | D | D | S | | |
| 3. Making an observation | B | D | D | D | D | S | | | |
| 4. Discriminating between same and different | B | D | S | | | | | | |
| 5. Comparing and contrasting | | B | D | D | D | D | S | | |
| 6. Categorizing | | | B | D | D | D | D | D | S |
| 7. Classifying | | | B | D | D | D | D | D | S |
| 8. Criteria setting | | | | | B | D | D | D | D |
| 9. Ranking, prioritizing, and sequencing | | | | B | D | D | D | D | D |
| 10. Seeing relationships | | | | | B | D | D | D | D |
| 11. Determining cause and effect | | | | | B | D | D | D | D |
| 12. Pattern Finding | B | D | D | D | D | D | D | D | D |
| 13. Predicting | B | D | D | D | D | D | D | D | D |
| 14. Making analogies | | | | | | B | D | D | D |
| **Planning/Organization Skills** | | | | | | | | | |
| 15. Memorizing | B | D | D | D | S | | | | |
| 16. Summarizing | B | D | D | D | S | | | | |
| 17. Metacognition | | B | D | D | D | D | D | D | D |
| 18. Goal setting | | | | | B | D | D | D | S |
| 19. Formulating questions | B | D | D | D | D | D | D | D | D |
| 20. Developing hypotheses | | | B | D | D | D | D | S | |
| 21. Generalizing | | | | | B | D | D | D | D |
| 22. Time Management | | | | B | D | D | D | D | S |
| 23. Decision making | | | | | B | D | D | D | D |
| 24. Making analogies | | | | | | B | D | D | D |

| COGNITIVE TRAINING (continued) | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| **Critical Thinking Skills** | | | | | | | | | |
| 25.  Inductive thinking | | | B | D | D | D | D | D | D |
| 26.  Deductive thinking | | | B | D | D | D | D | D | D |
| 27.  Determining reality and fantasy | B | D | S | | | | | | |
| 28.  Determining benefits and drawbacks | | | | B | D | S | | | |
| 29.  Identifying value statements | | | | | B | D | D | D | D |
| 30.  Identifying points of view | | | | B | D | D | D | D | S |
| 31.  Determining bias | | | | | | B | D | D | D |
| 32.  Identifying fact and opinion | | | B | D | D | D | S | | |
| 33.  Determining the accuracy of presented information | | | | B | D | D | D | D | S |
| 34.  Judging essential and incidental evidence | | | | | | | B | D | D |
| 35.  Determining relevance | | | | | B | D | D | D | S |
| 36.  Identifying missing information | | | | | | | B | D | S |
| 37.  Judging the credibility of a source | | | | | B | D | D | D | S |
| 38.  Determining warranted and unwarranted claims | | | | | | | B | D | D |
| 39.  Recognizing assumptions | | | | | | B | D | D | D |
| 40.  Recognizing fallacies | | | | | | | B | D | D |
| 41.  Detecting inconsistencies in an argument | | | | | | B | D | D | D |
| 42.  Identifying ambiguity | | | | | | | B | D | D |
| 43.  Identifying exaggerating | | | | | B | D | D | D | S |
| 44.  Determining the strength of an argument | | | | | | B | D | D | D |
| **Creativity Skills** | | | | | | | | | |
| 45.  Fluent thinking | B | D | D | D | D | D | D | D | D |
| 46.  Flexible thinking | B | D | D | D | D | D | D | D | D |
| 47.  Original thinking | B | D | D | D | D | D | D | D | D |
| 48.  Elaborational thinking | B | D | D | D | D | D | D | D | D |
| 49.  Developing imagery | | | | B | D | D | D | D | D |
| 50.  Attribute listing | | | B | D | D | D | S | | |
| 51.  Brainstorming | B | D | D | D | S | | | | |

**AFFECTIVE TRAINING**

| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| **Intrapersonal Skills** | | | | | | | | | |
| 52. Analyzing strengths | | B | D | D | D | D | D | D | S |
| 53. Clarifying values | | | | | B | D | D | D | D |
| 54. Developing a personal framework for activism | | | | | | B | D | D | D |
| 55. Developing a sense of humor | B | D | D | D | D | D | D | D | D |
| 56. Developing an ethical framework | | | B | D | D | D | D | D | D |
| 57. Developing moral reasoning | | | | B | D | D | D | D | D |
| 58. Developing resiliency | B | D | D | D | D | D | D | D | D |
| 59. Developing responsibility | B | D | D | D | D | D | D | D | D |
| 60. Developing self-efficacy | B | D | D | D | D | D | D | D | D |
| 61. Developing self-esteem | B | D | D | D | D | D | D | D | D |
| 62. Developing self-reliance | B | D | D | D | D | D | D | D | D |
| 63. Developing task commitment | | B | D | D | D | D | D | D | S |
| 64. Understanding learning styles | | | | B | D | D | D | D | S |
| 65. Dealing with change | B | D | D | D | D | D | D | D | D |
| 66. Dealing with success | B | D | D | D | D | D | D | D | D |
| 67. Dealing with failure | B | D | D | D | D | D | D | D | D |
| 68. Dealing with stress | | | B | D | D | D | D | D | D |
| 69. Understanding perfectionism | | | | | B | D | D | D | S |
| 70. Understanding risk-taking | | | | B | D | D | D | D | D |
| 71. Making choices | B | D | D | D | D | D | D | D | D |
| **Interpersonal Skills** | | | | | | | | | |
| 72. Developing environmental awareness | B | D | D | D | D | D | D | D | D |
| 73. Developing etiquette, courtesy, and social skills | B | D | D | D | D | D | D | D | D |
| 74. Developing multicultural awareness | B | D | D | D | D | D | D | D | D |
| 75. Developing visual, oral, & written communication skills | B | D | D | D | D | D | D | D | S |
| 76. Understanding assertiveness | | | | B | D | D | D | D | S |
| 77. Developing leadership skills | | B | D | D | D | D | D | D | D |
| 78. Apply conflict resolution strategies | | | B | D | D | D | D | D | S |

| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| 79. Understanding cooperation and collaboration | B | D | D | D | D | D | D | D | D |
| 80. Interpreting nonverbal communication | | | B | D | D | D | D | D | D |
| 81. Recognizing stereotypes | | | | | B | D | D | D | D |
| 82. Understanding tolerance, empathy, and compassion | | B | D | D | D | D | D | D | D |

**ACADEMIC TRAINING**

| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| **Listening, Observing & Perceiving Skills** | | | | | | | | | |
| 83. Following Directions | B | D | D | D | D | S | | | |
| 84. Noting Specific Details | | | B | D | D | D | D | S | |
| 85. Understanding main points, themes and sequences | | B | D | D | D | D | D | D | D |
| 86. Separating relevant from irrelevant information | | | | B | D | D | D | D | S |
| 87. Paying attention to part-whole relationships | | B | D | D | D | D | D | S | |
| 88. Scanning for the big picture | | | | | B | D | D | S | |
| 89. Focusing on specifics | | | | B | D | D | D | D | S |
| 90. Asking for clarification | | B | D | D | D | S | | | |
| 91. Asking appropriate questions | B | D | D | D | D | D | S | | |
| 92. Making inferences | | | B | D | D | D | D | D | S |
| 93. Noting subtleties | | | | | B | D | D | D | D |
| 94. Predicting outcomes | B | D | D | D | S | | | | |
| 95. Evaluating a speaker's point of view | | | | B | D | D | D | D | D |
| **Notetaking Skills** | | | | | | | | | |
| 96. Selecting key terms, concepts and ideas | | | B | D | D | D | D | D | S |
| 97. Disregarding unimportant information | | | | | B | D | D | D | S |
| 98. Noting what needs to be remembered | | | | | B | D | D | S | |
| 99. Reviewing notes and highlighting most important items | | | | B | D | D | D | D | S |
| 100. Organizing notes | | | B | D | D | D | D | D | D |
| 101. Outlining and webbing strategies | B | D | D | D | D | S | | | |
| **Advanced Research Skills** | | | | | | | | | |
| 102. Evaluating sources of information | | | | B | D | D | D | D | D |
| 103. Identifying specialized information sources | | | | | | | B | D | D |
| 104. Developing interviewing/surveying skills | | | | | | | B | D | D |
| • Identifying information being sought | | | | B | D | D | D | D | D |
| • Deciding on appropriate instruments | | | | | | B | D | D | D |

| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| • Designing instruments | | | | | | | | B | D |
| • Developing question wording skills | | | | | | | | B | D |
| • Sequencing questions | | | | | | | | B | D |
| • Identifying representative samples | | | | | | | | B | D |
| • Field testing and revising instruments | | | | | | | | B | D |
| • Developing rapport with interviewee(s) | | | | | | | | B | D |

| *ACADEMIC TRAINING, continued* | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| **Investigation/Problem Solving Skills** | | | | | | | | | |
| 105. Developing problem finding and defining skills | | | | | B | D | D | D | D |
| 106. Identifying variables | | | | | | B | D | D | D |
| 107. Stating hypotheses and research questions | | | B | D | D | D | D | D | S |
| 108. Identifying human and material resources | | | | | B | D | D | D | S |
| 109. Developing a management plan | | | | | | | B | D | D |
| 110. Obtaining feedback and making revisions | B | D | D | D | D | D | D | D | S |
| 111. Selecting appropriate product formats | B | D | D | D | D | D | D | D | S |
| 112. Identifying appropriate outlets and audiences | | | | | | B | D | D | S |
| 113. Developing an assessment plan | | | | | | | B | D | D |
| 114. Identifying types and sources of data | | | | | B | D | D | D | D |
| 115. Using data gathering instruments and techniques | B | D | D | D | D | D | D | D | S |
| 116. Identifying appropriate sampling techniques | | | | | | B | D | D | D |
| 117. Developing data recording and coding techniques | | | | | B | D | D | D | D |
| 118. Classifying and tabulating data | | | B | D | D | S | | | |
| 119. Preparing descriptive/statistical summaries of data | | | | | | B | D | D | D |
| 120. Preparing tables, graphs, and diagrams | B | D | D | D | D | D | S | | |
| 121. Drawing conclusions and making generalizations | | | | B | D | D | D | D | D |
| 122. Writing and reporting results | B | D | D | D | D | D | D | D | S |