GIFTED EDUCATION GUIDELINES AND RESOURCES

Volume II: Programming

Colorado Department of Education
201 E. Colfax Avenue
Denver, Colorado 80203-1799

Advanced by Design
REACH-Out and Nurture

Colorado Department of Education

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The following people are recognized for their dedication to excellence, equity and high achievement in the education of gifted and talented students.

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2004-2005 Gifted Education Directors and Coordinators in Colorado

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PREFACE

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Gifted Education Values

- Shared responsibility of educators, parents, and community for the academic and affective growth of gifted and talented learners.
- A climate of excellence and rigorous curricula for every child.
- Differentiation in curricula, instruction, and assessment which supports a continuum of services for every gifted and talented learner.
- High quality standards for professional educators who work with gifted and talented learners.
- Identification of exceptional potential in all populations of race, culture, gender, or income level.

Gifted Education Mission

Recognize and nurture the development of exceptional abilities so that all gifted students demonstrate positive self-esteem, high level thinking and creative productivity.

Gifted Education Vision

All gifted Colorado youth, including those living in urban areas, small towns, suburban neighborhoods, rural plains, and remote mountain communities, are identified by their strength areas and needs. Educational programming is designed and implemented to match their identified needs. Student progress and achievement is monitored through on-going dynamic assessment. Teachers of gifted students participate in professional development to increase knowledge, skills and understanding of gifted students and required instruction.

CDE, State Advisory Committee, GT Directors, 2003

Purpose for Programming Guidelines

The purpose of the Programming section of the *Colorado Gifted Education Guidelines and Resources Manual* is to:

- Facilitate common meaning about the components of programming for gifted and talented learners throughout Colorado.

- Uplift the importance of balanced programming so that gifted and talented students may develop to their highest potential during their school years.

- Link the student profile data compiled during identification with instructional placement and options, affective needs, and content extensions to address identified area/s of strength.

- Provide user-friendly support to help districts and BOCES implement programming components in ways that make sense in their unique communities.

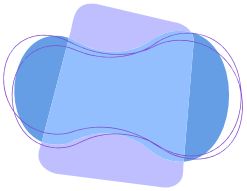
- Describe programming as one element in the overall design of a district's/BOCES' gifted program to meet the individual needs of gifted students.

- Clarify the difference between continuum of services and programming components.

- Place importance on research-based strategies that impact gifted student achievement: acceleration, integration of higher order thinking skills, cluster grouping, extended enrichment, counseling, pre-assessment, curriculum compacting, and product options.

- Frame programming in terms of the *Colorado School-wide Model for School Success* and the 3-tiered model of interventions and progress monitoring for student success.

- Provide examples of documents, forms, and lessons used by Colorado districts and relevant authors to facilitate instruction and monitor student achievement.



Gifted Programming Guidelines: What Are the Big Ideas?

- Programming is linked to identification. Gifted and talented programming services, options, and strategies are matched to the identified academic and affective needs of students.

- Programming design is systemic. It is not an add-on, but is directly linked with the values, vision, mission, and structure of an educational system.

- Programming occurs along a set of continuums. The delivery of services continuum determines where students will be served – in their own regular classrooms, in classrooms at another school, in resource rooms, in special classes, or in special schools.

- Gifted programming design encompasses a variety of services. Therefore, programming will not look the same for every district/BOCES, for every school, or even for every student within a school.

- Flexible grouping and ascending intellectual demand are hallmarks of programming for students with gifts and talents.

- Programming is monitored and documented through a structured process.

- The transition of information about gifted programming for individual students is articulated and proceeds smoothly from one educational level to the next.

- The results of programming services, options, and strategies link to student achievement and program evaluation for accountability.

PROGRAM

DESIGN

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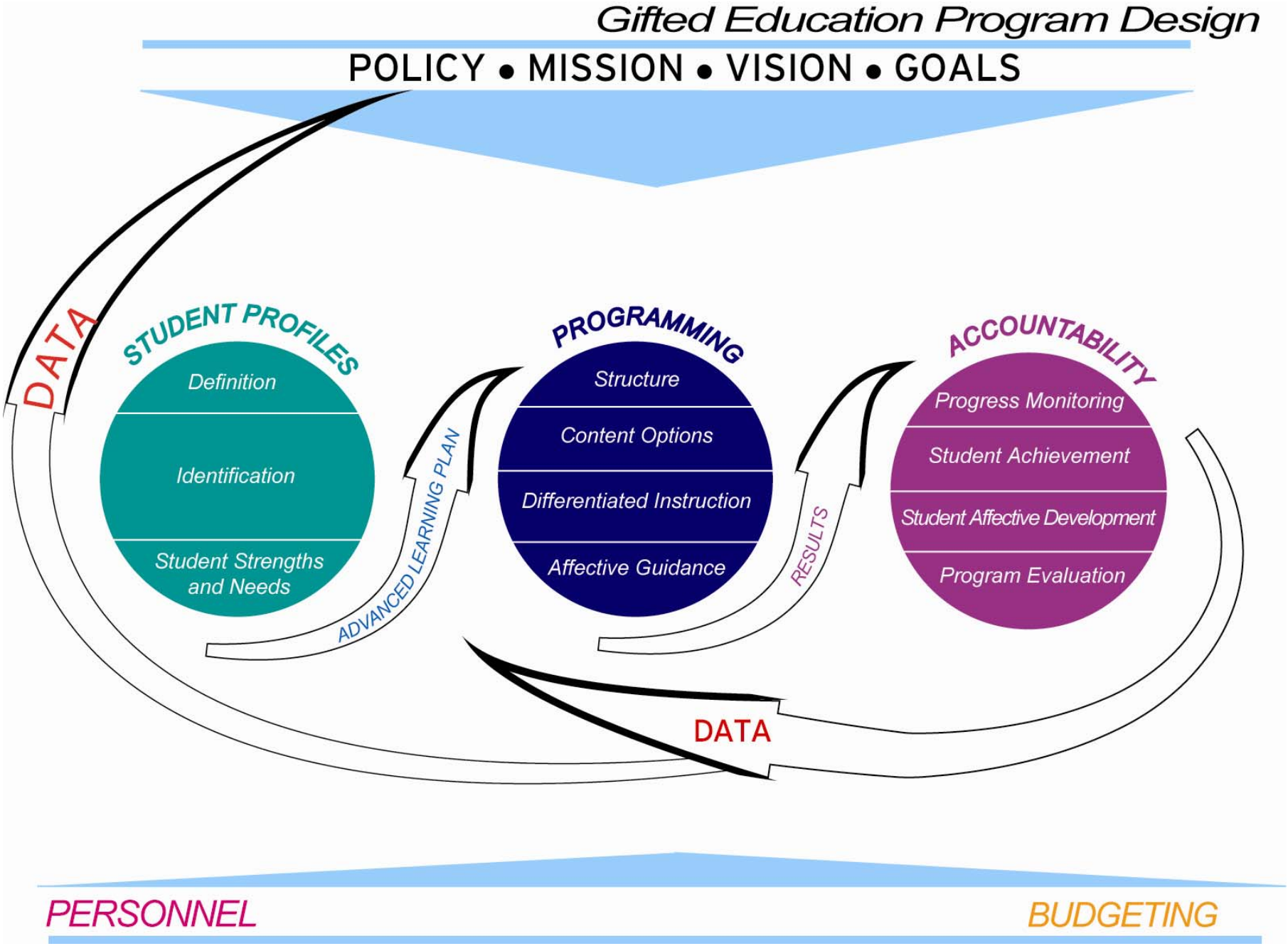
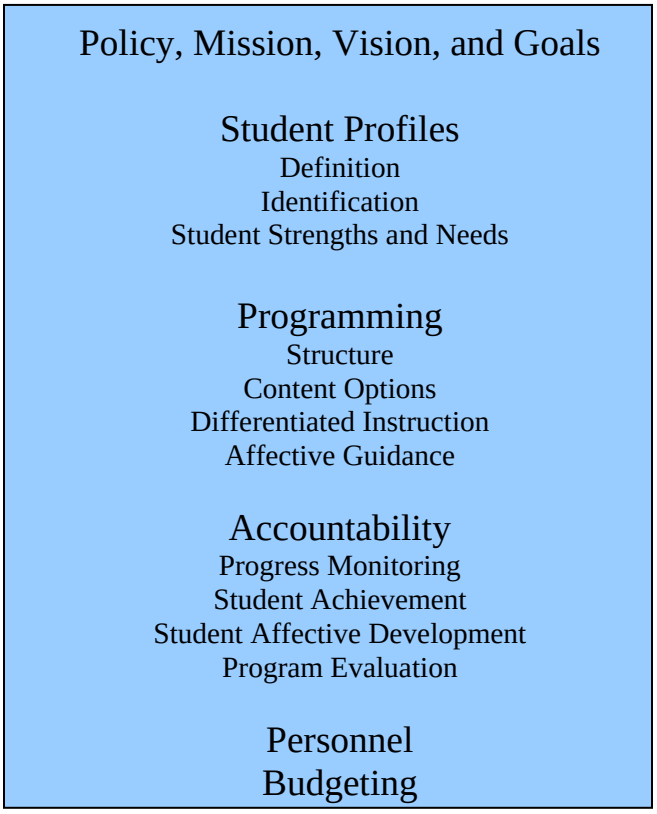

Gifted Education Program Design
POLICY • MISSION • VISION • GOALS
DATA
STUDENT PROFILES
Definition
Identification
Student Strengths and Needs
ADVANCED LEARNING PLAN
PROGRAMMING
Structure
Content Options
Differentiated Instruction
Affective Guidance
RESULTS
ACCOUNTABILITY
Progress Monitoring
Student Achievement
Student Affective Development
Program Evaluation
DATA
PERSONNEL
BUDGETING

Elements of Program Design

Program design is the systemic structure that supports gifted education within a district and BOCES. Design begins with values, mission, vision, goals and policies of the organization. The design impacts quality instruction for all students, results-oriented achievement, and ongoing professional development for personnel.



Program design aligns with requirements of the Rules for the Implementation of the Exceptional Children's Educational Act and effective school improvement processes. Values and mission promote a sense of meaning and interdependence. Data guides goals for program development and student achievement. Attitudes support challenge for all students so that learning and growth is at the highest level of potential. Communication supports the mission and builds rapport among all entities within the school system and community. Accountability embeds requirements in Colorado's Accreditation statute. Program evaluation includes district/BOCES self-evaluation and monitoring by the Colorado Department of Education.

An administrative unit defined as either a district or a BOCES must provide evidence of program design in the Administrative Unit Plan for Gifted Education submitted to the Colorado Department of Education for state gifted and talented funds. Design elements include: goals, definition, identification, programming, accountability, personnel, and budget.

Key Points for Program Design
National Standards for Gifted Programming

- ☐ Gifted program design needs to be guided by a clearly articulated vision/mission statement and by goals and objectives that are publicly acknowledged, supported and disseminated by school and district personnel.

- ☐ District policies that include provisions for gifted students will set the direction for a school district, establish parameters of fiscal planning and spending, and establish guidelines for services to gifted learners (e.g., grouping, early entrance, grade skipping, grading, textbook selection).

- ☐ A continuum of services is provided to meet the specific needs of many different types and levels of giftedness from kindergarten through grade 12. It is accessible to all gifted learners: those with academic, non-academic and social-emotional needs.

- ☐ Development of talents is a shared responsibility among educators, parents and community.

- ☐ The gifted program should be reviewed internally (every 3 years) and externally (every 5 years) to inform practice, reflect on current literature and set new goals.

- ☐ Funding is embedded in long-term planning of the school/district; annual budgets reflect gifted education programming; funding is equitable compared to the funding of other local programming needs.

- ☐ Resources (materials, personnel, activities) for gifted programming are within the general education school planning and budgeting process, and/or supplemented through state, federal, and community resources.

- ☐ Programming, provided in one or more of a variety of settings, must be an integral part of the general education day provided on a regular basis as a part of the total educational experience of the gifted students.

- ☐ Assessment provides data to support placement decisions and curricular differentiation options at the appropriate level of needs.

- ☐ Organizational structures including scheduling, communication, and staff planning time should support placement of students in appropriate programming options.

- ☐ Flexible grouping of students must be developed in order to facilitate differentiated instruction and curriculum.

- ☐ Programming directly aligns with ongoing monitoring of student achievement and accountability for learning and for the program.

Suggestions for District Leaders in Gifted Education

- Embed the gifted education design into the district's values, mission, and vision.
- Disaggregate gifted student achievement data and demographic information to determine instructional and programming options for gifted students in the district.
- Use the body of evidence compiled during identification to initiate programming.
- Collaborate with library media/content specialists and budget for advanced materials.
- Provide professional development to increase the capacity of educators to interpret student data and use results for instructional decisions and selecting options.
- Foster the premise that education of students is a shared responsibility among all staff, parents, and community members.
- Seek out partnerships that will extend the responsibility for educating gifted students beyond the classroom (e.g., with higher education, community business).
- Clarify with the community that gifted education is embedded in quality instruction.
- Build understanding that specific programs may have a positive effect on student achievement; however, they are not exclusive ways to serve gifted educational needs.
- Sponsor discussions about acceleration with teachers, parents, and students who could benefit from accelerated learning options; analyze student data including family support systems, teacher attitudes and support, student readiness, and access to options.
- Consider summer and/or Saturday advanced learning opportunities, which are excellent ways to address programming needs, especially in small school settings.
- Collaborate with nearby school entities for resources and programming needs.
- Collaborate across district departments when cultivating gifted education programming.
- Embrace the philosophy of differentiated curriculum and instruction as a key in laying a foundation for positive attitudes and high student achievement. Differentiated instruction is a philosophy that:
  - sets the climate for all students to learn and grow at their level of potential;
  - provides respect for learner differences: culture, ethnicity, gender, ability, and interest; and
  - develops the strengths of students.

Program versus Programming

Programming is a concept that embraces the broad components of what we do to address the needs of gifted students over time. Programming options include specific strategies and programs used to serve gifted student needs. Program is a specific type of content: affective or interest-based curriculum. Specific programs are ONE WAY to meet the educational needs of gifted students. In the absence of these programs, differentiated instruction, acceleration, affective guidance, extended enrichment, and higher-order thinking skills remain requirements of the gifted student's general education.

A gifted program groups like-talented students for

1) a set of classes of less than a school year in length offered as an alternative to general classroom or a long-term/full-time classroom setting;
2) the teaching of more in-depth or accelerated material linked to content standards;
3) creating an environment whereby scholarship and socialization are outcomes;
4) support in developing high level study skills and perseverance in learning;
5) practicing homework skills and independent learning;
6) developing research questions and creative solutions/presentations.

Programs for gifted students target specific curricular areas or interest-based topics. The selection of students for a program is based upon criteria for success in the particular program. Gifted students should not be collectively grouped in programs that may not address individual strengths and needs. If resources limit program offering, districts are encouraged to consider short-term summer experiences or a series of classes offered in partnership with the community or higher education.

Programs are usually facilitated by the classroom teacher, gifted education resource teacher/s, counselors, or other staff members trained in gifted education strategies. In some cases, community members who specialize in an area of study (e.g., engineering, math) may offer a course to supplement the school's offerings.

Programs…

- Target rigorous, in-depth, and creative studies.
- Are not simply enrichment.
- Serve students with different learning styles, cultures, and socioeconomic backgrounds.
- As a rule of thumb cover 50% more material than general education.
- Provide counseling to gifted students and families who need help with emotional and social issues often faced by gifted students.
- Involve parents.
- Provide a focus on career and college planning.

Examples of gifted programs are: Talents Unlimited, Literature Units from the College of William and Mary, Junior Great Books, Women in Engineering, Philosophy for Kids, IB, special math/science programs, and summer school two-four weeks, drama festivals, oration teams, competitions, and seminars.

Synthesized from *Designing and Developing Programs for the Gifted Student (2003)*

Continuums

Because gifted and talented students differ in a variety of ways, their needs can be met by placing them appropriately along several continuums.

A continuum of services is the variety of delivery and programming options available to gifted and talented students for meeting educational and affective needs.

A continuum of delivery of services refers to "where" gifted students are served: general classroom, classroom cluster groups, resource room, vertical team groups, learning clusters for special interests or topics, mentorships, magnet classrooms, special schools for gifted students, or special education.

The continuum of learning refers to the content standards and benchmarks, K-12, that allow for continuous learning and/or acceleration based upon progress monitoring and student achievement in the content benchmarks.

A continuum of programming options refers to the curricular and affective opportunities provided to gifted and talented students through the implementation of the programming components (acceleration, affective guidance, differentiated instruction, extended enrichment, and higher-order thinking skills). Programming options are embedded in the 3-tiered model for student success that describes options for all gifted students, targeted groups of gifted students, and a few gifted students who require intense programming options.

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Grouping Patterns

Grouping is one of the decisions that teachers make during the planning stage of the Teaching Learning Cycle. Grouping is always done with the needs of the students and the purposes for instruction in mind.

Foundational information about grouping:

Ability grouping is regrouping students for the purpose of providing curriculum aimed at a common instructional level. Generally, gifted learners need some form of grouping by ability to effectively and efficiently accomplish several education goals, including appropriate broadened, extended, and accelerated curricula (Rogers).

Gifted students benefit cognitively and affectively from working with other gifted students (Feldhusen,1989, Kulik and Kulik, 1984, and Oakes, 1986).

The success of grouping gifted students depends upon the school district, personnel, population demographics, and culture from school to school (Rogers).

"Flexible use of student groups is the heart of differentiated instruction." (Differentiating Instruction in the Regular Classroom, Dianne Heacox, Ed.D.)

Excellence in Educating Gifted & Talented Learners, Third Edition
Joyce VanTassel-Baska, College of William and Mary
Rationale for homogeneous grouping:

1. It provides a better match between the developmental readiness and needs for a given student and the instruction he/she receives;
2. Students differing in ability respond differently to various educational strategies or teaching methods;
3. Students learn better when they work with other students at their level of competence or just slightly above;
4. Grouping provides a challenge for students to excel or forge ahead; and
5. Grouping makes teaching easier by restricting the range of ability/achievement.

Forms of Grouping:

- **Flexible grouping** is the practice of forming and reforming groups of students. Grouping options are categorized as whole class, teacher facilitated needs-based groups, cooperative groups, pairs, and individual teaching and learning. Groups can differ according to prior knowledge, ability, learning rate, learning style preferences, interests, strengths, and talents.
- **Cluster grouping** within heterogeneous classrooms is the arrangement for placing 5 to 10 gifted students in a regular classroom with a regular classroom teacher who has additional training and support in gifted education. Regular content is differentiated in the student's strength areas. The other students in the classroom are heterogeneously mixed. Cluster groups at the middle level can be formed on a team or within a community.

Full-time grouping plans:

- Magnet schools.
- Special schools - allow for full-time best practices in gifted education. Highly differentiated instruction and grouping practices are essential.
- Full-time gifted programs:
    - Homogeneous classes
    - Heterogeneous classes
- Individualizing in heterogeneous classes.
- Special accelerated classes - may telescope two years of content into one year.
- Grouping for acceleration of the curriculum.
- Advanced Placement classes give able and motivated high school students the opportunity to study the material for one or more college-level courses.

Part-time grouping plans:

- Part-time or temporary groups.
- Pullout programs linked to content standards.
- Part-time special classes.
- Temporary grouping for reading and math.
- Special interest groups and clubs.
- Regrouping for acceleration of the curriculum.
- Cross-grade grouping or non-graded classrooms - allows students to receive instruction with their academic peers regardless of their grade level (e.g. a second grader may need to be grouped with third or fourth grade students for a particular subject or subjects).
- Enrichment learning clusters - in-depth and accelerated work.
- Within-class ability grouping.
- Performance or skill grouping is the instructional grouping of students based on their similar performance abilities, strengths, and/or needs in a subject area.
- Interest grouping allows for students with similar interests to work together.
- Transition-Vertical grouping.

Cooperative Groups

Can provide valuable opportunities for students to share ideas, practice critical thinking, and gain social skills. However, when cooperative learning groups are the primary strategy in the classroom, gifted students' needs may not be met. Cooperative groups should be:

- Used to increase attention to divergent thinking.
- Used to help students take on modes of scientific inquiry.
- Used for the analysis of public issues and personal values.
- Used for education in cooperation, itself.
- Used for the study of specific academic content.
- Used to teach scientific inquiry and the democratic process simultaneously.

Getting Started

Gifted directors of districts/BOCES are encouraged to use the Concerns-based Adoption Model (CBAM) in moving toward best practices in gifted programming. The model expresses people's concerns about an innovation. The lowest stage of concern is at the bottom of the following chart. Address that level before attempting to move on, and do not skip levels. To help move people toward the next level, focus on addressing the level above.

For example, if administrators and teachers in a district or BOCES have no awareness about gifted programming, then the director's role will be to raise that awareness first, and then to focus on the next level: information. Or, if concerns center around management issues, stage 3, give educators management strategies, and then help them to focus on the consequences of adopting best practices in gifted programming.

Typical Expressions of Concern about an Innovation

Stage of Concern	Expression of Concern
6. Refocusing	I have some ideas about something that would work even better.
5. Collaboration	How can I relate what I am doing to what others are doing?
4. Consequence	How is my use affecting learners? How can I refine it to have more impact?
3. Management	I seem to be spending all my time getting materials ready.
2. Personal	How will using it affect me?
1. Informational	I would like to know more about it.
0. Awareness	I am not concerned about it.

Downloaded from www.nas.edu/rise/backg4a.htm

Commitment by the Dozens

Director/Coordinator/GT- Leader	Building Administrator
• Gather, interpret, and communicate gifted student data from multiple sources. • Establish policy and procedures for the gifted program and programming. • Establish a leadership team or advisory group to assist in planning, implementation, and program reviews. • Implement the Administrative Unit Plan and submit annual reports to CDE, local school board, schools, and community. • Oversee the implementation of the program design including identification and advanced learning plan processes. • Provide a parent handbook for newly identified gifted students. • Ensure that publications are printed in multiple languages to meet local needs. • Convey ongoing communication about gifted education objectives, activities, and successes to all stakeholders. • Collaborate to find resources to meet the needs of gifted students. • Implement/support gifted education professional development in the district/school plans. • Be involved in district level discussions for strategic planning goals and grant development (e.g., Title I, II, V). • Conduct periodic program evaluation.	• Know basics about gifted education and needs of gifted students. • Gather, interpret, and communicate gifted student data from multiple sources. • Establish gifted education as one element integral to the overall school design and ensure alignment with the district. • Provide funding for gifted education as a component in the overall school budget. • Support teachers in efforts to differentiate curriculum, instruction, and assessment. • Establish support structures to ensure student success (e.g., cluster grouping practices, appropriate class schedules, counseling access, timelines for a routine identification process). • Collaborate with staff on a routine method for advanced learning plan review and maintenance of records. • Promote and train a school level leader/s in gifted education. • Facilitate professional development for teachers of gifted students. • Incorporate meeting the diverse needs of gifted learners into teacher evaluation expectations. • Observe and provide positive feedback to teachers regarding gifted programming. • Include parents in school committees, classroom assistance needs, and shared decision making processes.

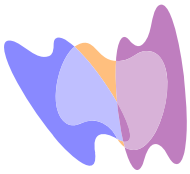
Student

- Communicate interests, strengths, and career goals.
- Express concerns or needs.
- Be responsible for own learning.
- Demonstrate higher-order thinking skills.
- Develop positive social skills and friendships.
- Take academic and leadership risks and challenging courses.
- Seek opportunities to be a creative producer.
- Fulfill course/classroom expectations.
- Learn organizational, study, and research skills for self-directed learning.
- Develop leadership skills within and beyond the school environment.
- Learn to advocate appropriately for personal academic and social needs.
- Learn self-evaluation and reflection skills to prioritize goals and achievement.

Parents	Teacher
• Provide staff with insight to child's strengths, interests, and needs. • Establish ongoing collaboration with teachers and child. • Be aware of programming services that match child's strengths. • Participate in the learning plan process, K-12. • Use the established procedures for parent-teacher conferencing at the local school. • Be a positive advocate for gifted students by working with the school and gifted organizations. • Provide positive role models for child, including yourself and an adult in the child's strength area. • Establish support structures in the home for homework, developing talents, shared events, and talk-time. • Assist in finding community/district resources for meeting needs of child. • Be involved with the school/classroom as much as possible. • Participate in the process and course decisions for advanced learning and college planning. • Continue to learn about gifted programming and parent involvement.	• Know the gifted learners in the class - category and level of giftedness, interests, and achievement data. • Establish ongoing collaboration with parents and students. • Collaborate with peers/administration for materials and resources to meet gifted needs. • Establish a schedule for learning plan development and review. • Implement differentiated curriculum, instruction, and assessment for advanced learners. • Implement appropriate pre-assessment; instruct at the child's level of instruction; monitor progress frequently. • Be aware of pacing and/or acceleration needs. • Implement flexible grouping patterns. • Make decisions about levels of interventions to address individual needs. • Stay tuned-in to affective needs and issues; seek advice from other counseling experts if necessary. • Compact curriculum for extended enrichment. • Participate in on-going gifted education professional development.

Common Questions that Parents Ask and that Educators Should Be Able to Answer

- What are the advanced learning opportunities at my child's school?
- How do you identify gifted students?
- How are services decided and implemented?
- Is early entrance an option?
- How will my child benefit from gifted programming?
- My child was identified for gifted services elsewhere; is he/she automatically included in the school's gifted program?
- Will the gifted programming services mean more work for my child and not qualitatively different work?
- How do we address the non-academic exceptionalities of my child?
- In what ways can we work/communicate together?
- What are criteria for grade skipping or other forms of acceleration?
- How do I assist my child in transitions to the next level of schooling?
- What are the ways I can participate in school activities/committees?
- How is appropriate instruction provided if my child does not want to participate in a specific g/t program or magnet school?
- If my child is twice-exceptional, how will his/her needs be met?
- What kind of assessment is used to monitor my child's progress, especially if state assessment scores are weak?
- What resources or support systems are available to parents of gifted children?
- What are some ways I can support my child's strengths outside the school environment?



RECORD

KEEPING

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Record Keeping through Advanced Learning Plans (ALP)

8.05(3)(a) ***A record of gifted and talented education programming services, options, and strategies utilized with individual students shall be made part of the student's record and shall be considered in educational planning and decision-making concerning subsequent programming for that student.***

- An accountability record providing evidence of monitoring gifted interventions and student progress through the grades as a condition for gifted funding and accreditation goals.

- A direct link between the student profile created during the identification process and the implementation of programming services matched to the child's strengths and interests.

- A planning guide for making instructional decisions about materials, programming options, and assessments for gifted and talented students based upon strengths, interests, learning characteristics, and social-emotional needs.

- A document across grades that includes indication of at least one identified strength area, goal for instruction, interventions/programming services, results of achievement and goal activities, and the responsible participants (personnel, parent, student).

- A tool for monitoring students with outstanding potential and for planning the necessary steps and instruction for students to gain exceptional skills in their area of strength.

- Data for the ALP is collected from regular classroom, district, and state assessments, and/or identified gifted programming options. It is a part of regular cumulative folder record keeping systems. Some districts use a colored folder within the cumulative folder; other districts implement an electronic learning plan system.

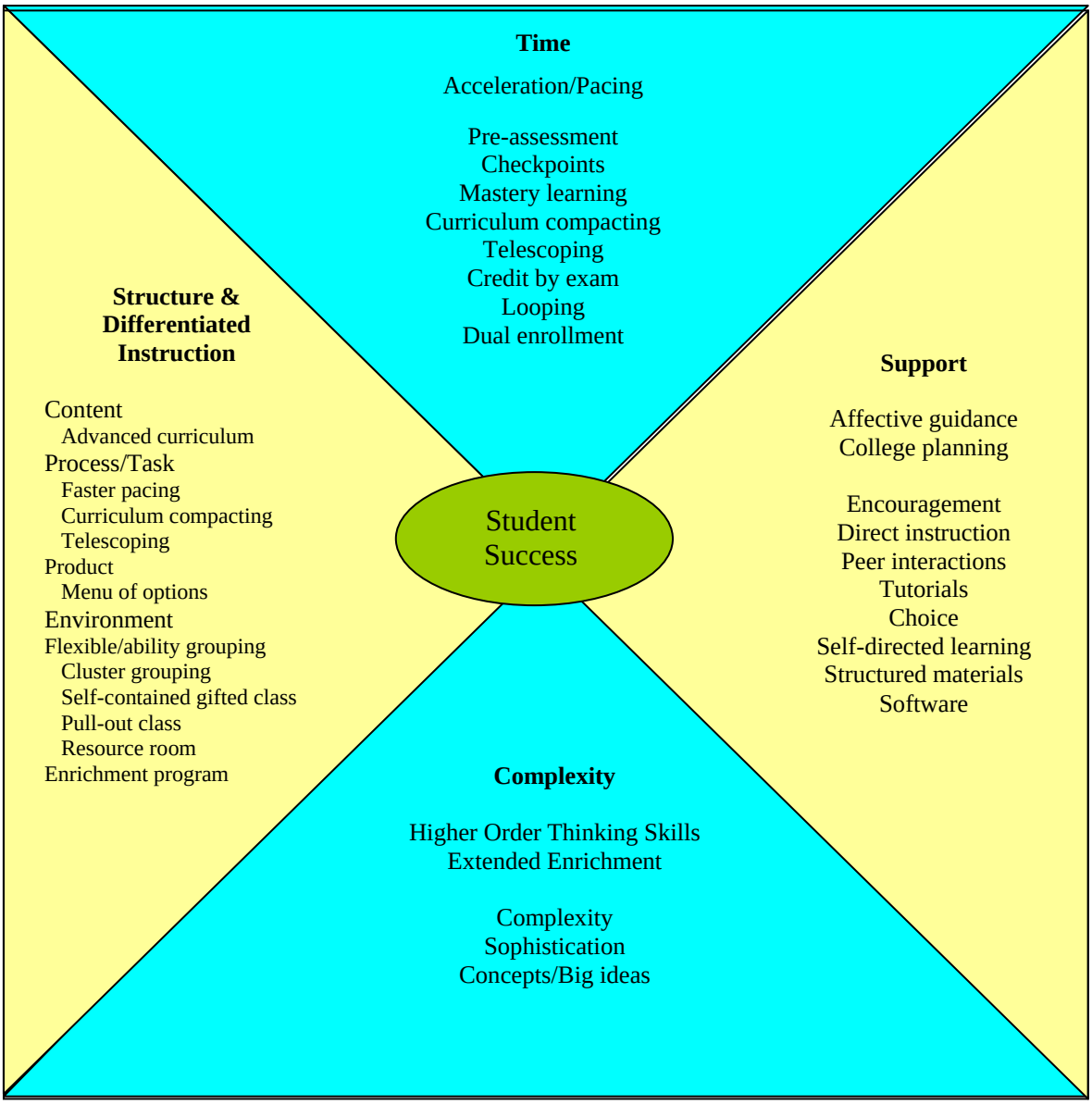
- Considerations for success include structure and instruction, time, support, and complexity. See ALP Variables on the next page.

- A document reviewed with parents and the gifted student once a year. A systemic routine needs to be established according to the settings of elementary, middle, and high school.

  Examples:
  At the elementary level, the ALP is attached to the report card and reviewed at the regular parent-teacher conference. At the middle school level, the ALP is attached to the report card and reviewed at the regular parent-teacher conference; or, staff meet with all ALP students and parents; or the ALP is mailed home. At the high school level, the ALP is student-directed. As a part of the regular counseling process, the student annually discusses career plans, course selection, and cluster grouping opportunities with other gifted students based upon strengths and interests.

- A document that is critical in the transition of gifted students from one level of schooling to the next and from school to school. The ALP information must be transferred during regular registration procedures established in the district. It is advisable to include a question about gifted identification and/or previous gifted services on intake registration materials.

Advanced Learning Plans
Variables



Adapted from **Four Variables for Success,** Mary Ruth Coleman, Ph.D., Gifted Child Today, Winter 2003, Vol. 26, No. 1.

See Appendix for:

Advanced Learning Plans - Examples from Colorado

PROGRAMMING FOR GIFTED LEARNERS:

COMPONENTS

Structure
Differentiated Instruction for Gifted Learners
Content Options
Affective Guidance and Counseling

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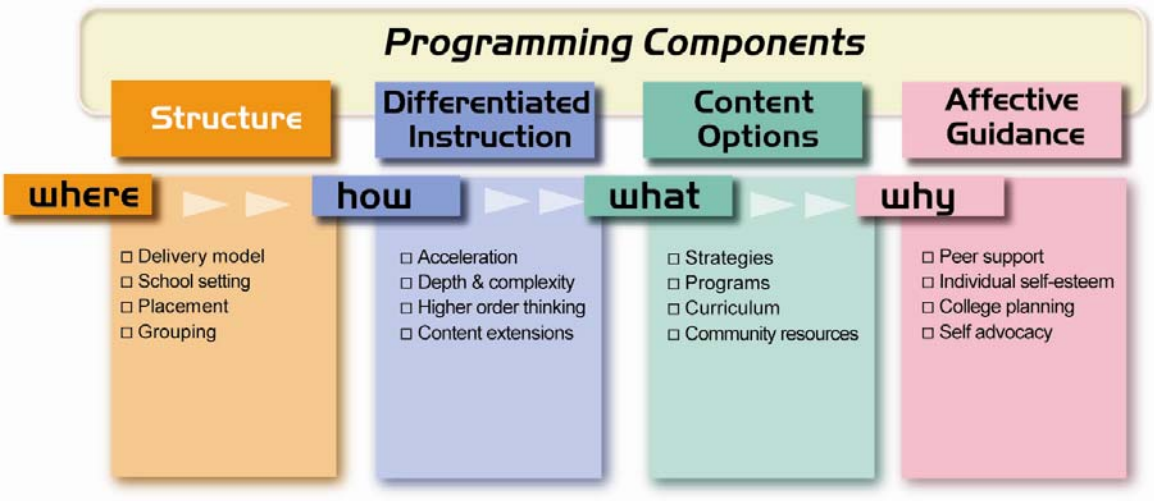
Programming for Gifted Learners

Balanced programming means including the components required to provide for the educational needs of gifted and talented students. The programming components are based upon national standards, research, and best practices in gifted education. Programming components address the instructional and grouping practices that promote high achievement for gifted students. It is essential that programming choices link to the student profile compiled during the identification process.

Results of programming efforts are reflected in student achievement data and affective responses that should be collected in a body of evidence over time. Programming results are integral to ongoing progress monitoring expectations.

Programming is an essential concept in gifted program design that embraces where and how we serve identified gifted students. Programming components include:

Structure
Differentiated Instruction for Gifted Learners
Content Options
Affective Guidance and Counseling



Programming is adaptable to the resources within different districts. Schools and/or districts work together to determine how the programming components will be implemented to ensure measurable growth in gifted student achievement.

The Colorado Rules for the Implementation of the Exceptional Children's Education Act that requires attention to programming states:

8.02(1)(c) *Programming: The plan shall describe the programming services, options, and strategies that will most commonly be implemented by the administrative unit and schools to appropriately address the educational needs of gifted and talented students. Such services, options, and strategies should include but not necessarily be limited to appropriate advanced/accelerated adaptations to the regular curriculum, advanced enrichment, learning-related affective program, and career and future education guidance and counseling.*

Given that districts serve gifted students in a variety of ways, gifted education is not solely dependent upon a specific content program or the number of gifted programs available in a district. Each district/administrative unit plan addresses a balance of programming options, especially the instructional and affective elements when addressing the needs of gifted learners.

A program is a specific type of content, affective or interest based curriculum. Specific programs are ONE WAY to meet the needs of gifted students.

Advanced by Design
REACH-Out and Nurture

Component 1: Structure

Structure describes placement options for delivering instruction and content extensions appropriate for gifted students within classroom and school environments, Pre-K – 12.

Decisions about structure impact the intensity of gifted interventions and the time gifted students interact with like-ability peers. Research continues to support the like-ability grouping of gifted students.

Local districts may use the options for placement for a variety of instructional purposes throughout the calendar year (e.g., daily instruction, summer school, inter-sessions, field trips, mentorships, and Saturday programs). Selecting the appropriate structure is dependent upon the personal characteristics of gifted students and resources of the district/school. In this regard, decision makers must realize that one particular structure may not meet the needs of all gifted students.

Structures for grouping gifted students include:

<u>Classroom with flexible grouping</u>
Flexible grouping options occurring within the whole class are usually teacher-facilitated based upon specific learner needs. These may take the form of like-ability cooperative groups*, paired learning, and/or subject specific needs. Flexible grouping may differ depending upon students' prior knowledge, learning rate, learning style, interests, strengths, and talents.

<u>General education with peer-tutoring</u>
Peer tutoring when used for developing exceptionalities will produce higher achievement when the dyad is of like-ability or interest. Using the bright child to tutor a lower ability student does not increase the bright child's achievement.

<u>Classroom with cross-grade grouping</u>
Cross-grade grouping is a variation of flexible grouping for specific instruction when a gifted student requires ongoing acceleration in one or more specific academic areas. The key to this grouping pattern is a philosophy that there are no ceilings for what students can learn at a particular grade-age placement.

<u>General education with cluster grouping</u>
Cluster grouping consists of placing a group of identified gifted students in a heterogeneously mixed classroom setting with a classroom teacher who has had additional training in gifted education. The teacher often receives additional support from a gifted resource teacher/specialist. Regular content is differentiated to meet the needs of gifted students. Cluster groups at the secondary level can be formed within teams, or scheduled into specific content classes.

* For gifted students, like-ability cooperative grouping will more likely demonstrate improved academic achievement only if the tasks are differentiated, more challenging than general education tasks.

General education with resource room
Resource rooms serve gifted students beyond what is provided to them in the regular classroom setting. The resource room model must align with content standards to have significant academic effect. Resource rooms provide programs that extend, challenge and/or accelerate specific curriculum for gifted learners. Affective programs and independent studies may also be included. The key to resource room success is that the regular education and gifted education teachers collaborate on the needs of gifted students and the shared responsibility of differentiated instruction.

Regular education Honors, Advanced Placement, and International Baccalaureate classes
Honors, AP, and IB classes serve gifted students with challenge and rigor. Gifted students may require these classes earlier than age-mates and may require differentiated instruction and curriculum. Students in these courses often prefer: lecture, small group projects, challenging and fast pace learning, competition, diverse points of view, academic interests, and extra-curricular activities.

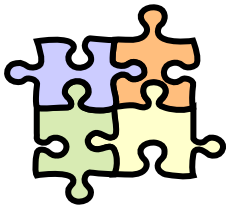
Clusters for special interests
Special interest clusters may include both long and short term projects and competitions that are tailored for the needs and interests of gifted learners. Students may opt-in or be recommended for these options throughout the school year.

Magnet classroom
Magnet classrooms are full-time district programs where gifted students with like ability and/or talent coexist within a regular education school setting. The classrooms may be multi-age or at different grade levels. The gifted students and their families are full participants within that school community.

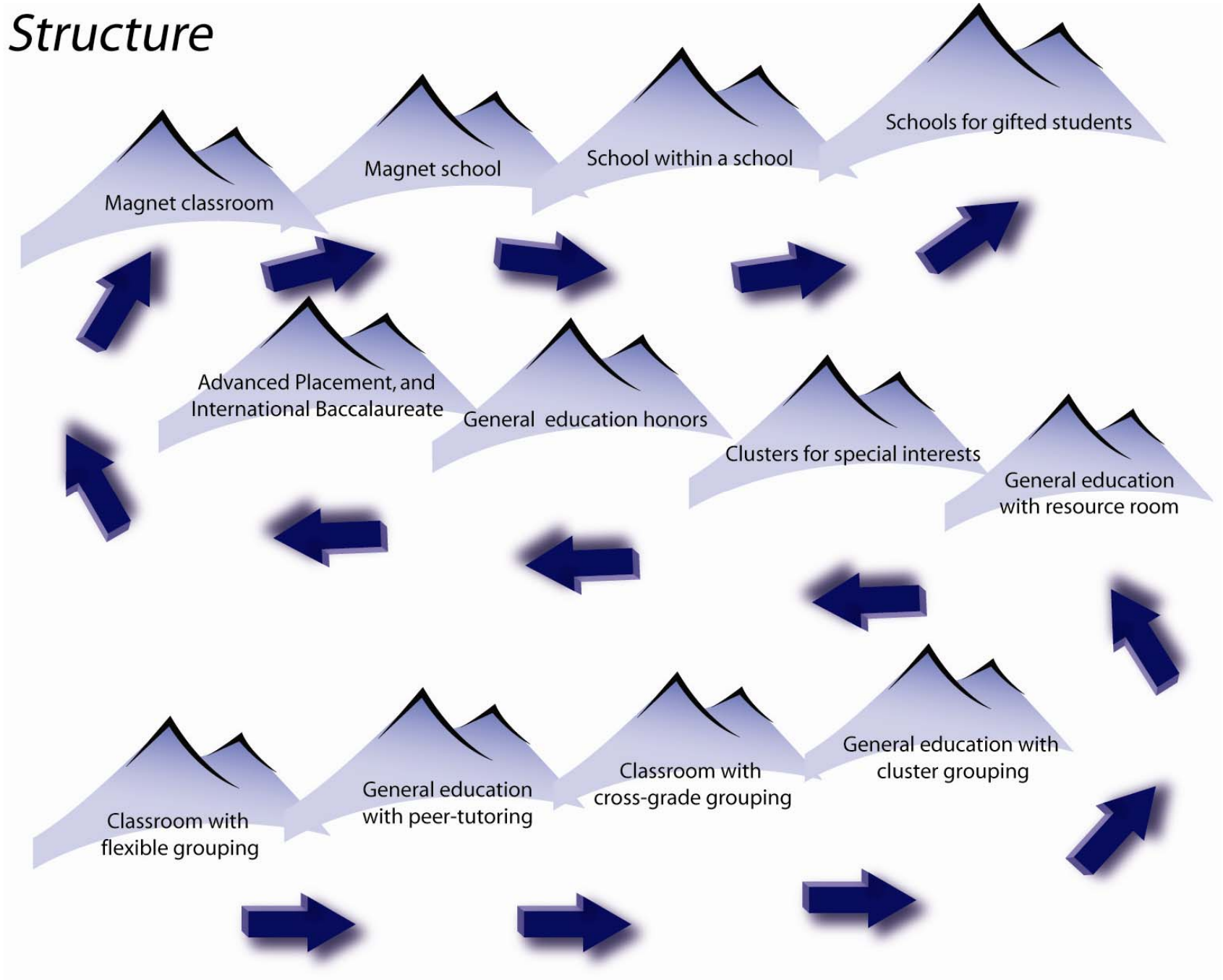
Magnet school
Magnet school is a separate school focused on a specific subject area or areas (e.g., school for the arts, math, or technology) or on a specific group of gifted learners (e.g., academically gifted).

School within a school
School within a school places gifted students in self-contained classes at every grade level in an otherwise heterogeneous school. School within a school may have its own administrator and curriculum compared to the host school.

Schools for gifted students
Schools for gifted students are intended as full-time gifted programs within districts. Gifted and talented learners have the option of attending such a school based upon the student's academic and intellectual abilities. Teachers in schools for gifted students should have a high level of training in the nature and needs of gifted students. Curriculum is focused on depth of understanding, challenging concepts, and high order thinking skills.



Structure


Magnet classroom
Magnet school
School within a school
Schools for gifted students
Advanced Placement, and International Baccalaureate
General education honors
Clusters for special interests
General education with resource room
Classroom with flexible grouping
General education with peer-tutoring
Classroom with cross-grade grouping
General education with cluster grouping

RESEARCHED BEST-PRACTICES FOR GIFTED LEARNERS

Achievement By Design: Practices That Make a Difference Presentation for Colorado Association for Gifted and Talented: Administrators' Breakfast, 2002, By Karen B. Rogers, Ph. D., University of St. Thomas.

EFFECT SIZE (ES) indicates the growth in achievement beyond a year's growth (0) for gifted students.

Research on Instructional Management: Individualization

Non-graded classrooms	ES= .38
Multi-grade classrooms	ES= .19
One-to-one mentoring/tutoring	ES= .57
+Compacting	ES= .83, .26
Credit for prior learning	ES= .56
Talent development	LO
IEPs or ILPs	LO
Independent Study	ES= 0

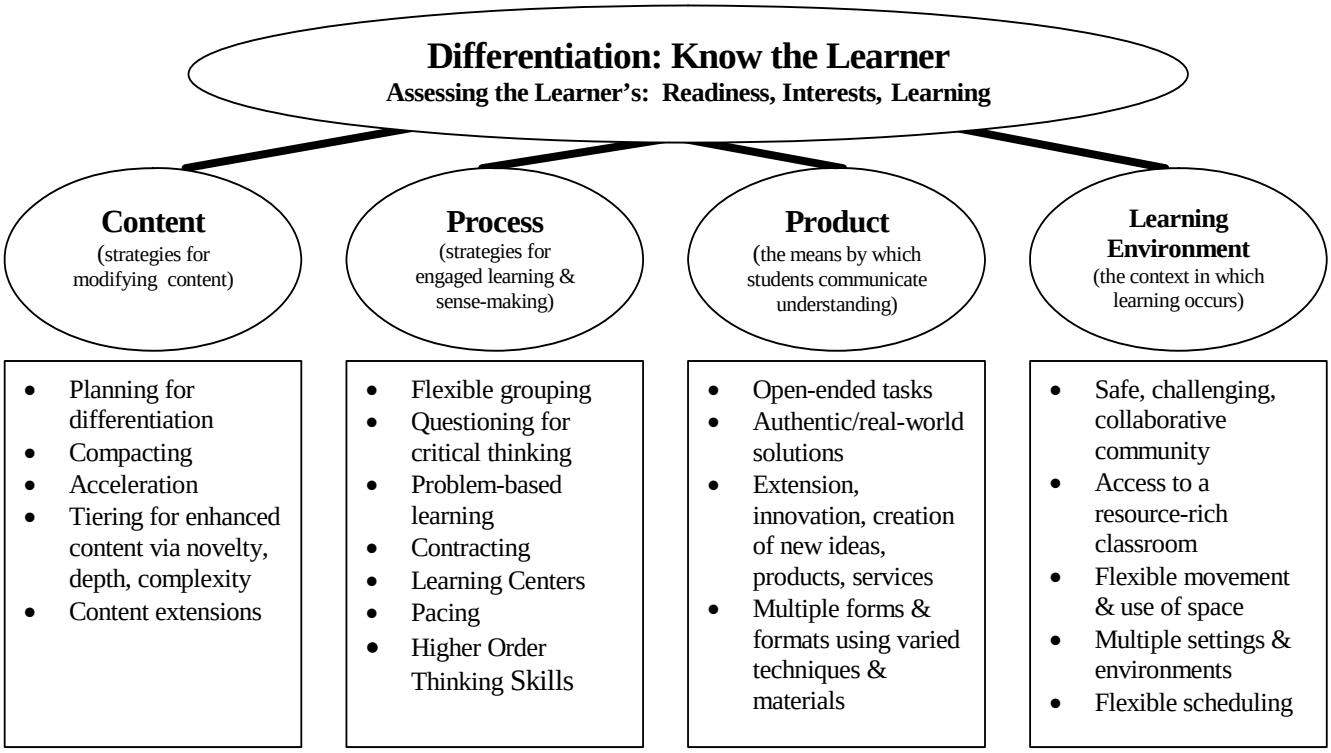
Research on Instructional Management: Grouping Permutations

+Full-time ability grouping	ES= .49, .33
+Regrouping for specific instruction	ES= .34, .79
Cluster grouping of GT students	ES= .62
+Pull-out grouping	ES= .65*, .44, .32
Within-class ability grouping	ES= .34
+Cross-graded classes	ES= .45, .46
Mixed-ability cooperative groups	ES= 0

*when extension of standards being taught in the classroom are being used
+when more than one effect size is listed, this represents Elementary setting (first number) and Secondary setting (second number)

Component 2: Differentiated Instruction for Gifted Learners

Differentiating instruction is an approach to respond to a learner's needs through modification of content, process, product, as well as learning environment.



Content, process, and product are addressed by adjusting pace, depth, and complexity of materials and tasks to promote continual growth and appropriate challenge. Depth encourages students to venture further, deeper, with greater elaboration into an area of study (going deeper, uncovering information, learning from: concrete to abstract, familiar to unfamiliar, know to unknown, literal to synthesized). Complexity helps students make connections and identify relationships and associations between, within, and across subjects and disciplines (focus on: relationships within, between, and among a topic or discipline, content to study issues, problems, and themes, varying perspectives). Novelty encourages students to create a personal understanding or connection to the subject area, making content more memorable (provide personalized approaches to inquiry and exploration, use non-traditional study methods, synthesize information using irony, paradox, and metaphors, interpret meaning and give personal insights).

The learning environment addresses both the operation (rules, procedures, guidelines) and the tone (respect, celebrations, responsibility) of the classroom. The student's readiness, interests, and learning level need to be considered when determining instructional decisions.

According to Carol Ann Tomlinson, Professor of Educational Leadership, Foundations, and Policy at the University of Virginia, "…learners should work consistently with concept-

focused curriculum, tasks that call for high level thought, and products that ask students to extend and use what they have learned in meaningful ways. As a student becomes more advanced, task 'demand' will need to escalate to ensure ongoing challenge for that learner and to ensure continual progress toward expertise. This concept is called ascending intellectual demand." (Tomlinson, et.al. *The Parallel Curriculum*. Corwin Press, 2002.)

When taking into consideration the balanced programming needs of gifted learners, the following three essentials, **Acceleration, Content Extensions, and Higher Order Thinking Skills** should be included so that gifted students may develop to their highest potential during their school years. Specific information on Acceleration, Content Extensions, and Higher Order Thinking Skills are addressed in the following sections.

Essential 1 - Acceleration

Acceleration is the appropriate movement of a student and/or curriculum by pace or place which matches learning opportunities with student's demonstrated readiness and needs.

Gifted and talented students learn at pace considerably faster in their area(s) of strength than their age-level peers. Further, gifted and talented students are able to work with curricula two or more grade levels higher than their age-level peers. Acceleration must be continuous and coordinated to be successful.

Acceleration requires comprehensive assessment data in a body of evidence and collaborative dialogue among all stakeholders in the decision. The body of evidence must include, but is not limited to, data about: student academic readiness skills, social-emotional development, achievement, ability, student interests, learning environment support, and family support. The *Iowa Acceleration Scale* is a resource to guide some acceleration decisions.

Advantages of appropriate acceleration:

- Gifted students are inclined to select older companions because their levels of maturity are often more similar.
- Acceleration can be used in any school.
- Accelerated students do as well as the older students in their classes.
- Gifted students may be more satisfied when challenged at an appropriate level.
- Social and emotional adjustment is generally high, in most reports above average, when accelerated.

Suggestions for District Leaders in Gifted Education:

- Pre-assess student learning and accommodate the level of instruction and pacing needs based on the individual student data.
- Develop school board policies and/or district protocol to ensure that acceleration is a systemic and comprehensive option.
- Build understanding of acceleration options and flexibility among staff.
- Coordinate vertical collaboration and curriculum mapping to facilitate long term planning.

- Create transition teams in order to provide appropriate support for the classroom teacher and student as acceleration options are implemented.
- Provide students with exit options.
- Involve parents and students in the decision-making process for the success of the student. Flexibility of programming is important; what works for one child may not work for all.
- Provide on-going training and support for teacher involved.

Parent Involvement:

- Involve parents, students, and teachers in the decision to accelerate.
- Develop a plan for the continuum of service for the acceleration with counselor, student, teacher, and parent.
- Understand the requirements of an acceleration program; for example, transportation and cost.
- Monitor student progress and satisfaction.
- Commit to attend parent, teacher, student conference to review academic achievement and social-emotional development.

Special Considerations:

Rural/Outlying Towns, Gender: Examine options such as mentorship, alternative assessments, local higher education resources, and distance learning.

Linguistically and Culturally Diverse Learners: Implement acceleration strategies for ESL students in an area of demonstrated need while English skills are being developed.

Economically Disadvantaged Learners: Consider the importance of age-level peers and cultural biases.

Frequently Asked Questions

What is acceleration?

> "Acceleration is an educational intervention that moves students through an educational program at a faster than usual rate or younger than typical age." Colangelo, et. al., *A Nation Deceived: How Schools Hold Back America's Brightest Students.*

Who should be accelerated?

> Advanced students whose responses are beyond grade level expectations, more complex, more rapid, fluent, and at higher levels than peers'. Take into consideration cognitive functioning, personal characteristics, learning preferences, and interests of the student. Specific considerations for each of the prior acceleration options are addressed in Rogers, *Re-Forming Gifted Education*, (Chapters 5 & 6). The Iowa Acceleration Scale provides scales to determine if whole grade acceleration is the appropriate option.

What forms of acceleration are appropriate for students?

Subject-based	Grade-based
• Compacting curriculum. • Single subject acceleration. • Concurrent enrollment. • Talent search programs. • Correspondence courses. • Independent study. • Distance learning. • Advanced placement courses. • International Baccalaureate Program. • College-credit-in-the-school programs. • Mentorships. • Post secondary options.	• Early entrance to kindergarten or first grade. • Grade skipping. • Non-graded classrooms. • Multi-grade/age classrooms. • Grade telescoping. • Testing out. • Early admission to college.

Who makes the decision regarding various types of acceleration?

It is critical that decisions regarding acceleration be a collaborative process using the data in the body of evidence supporting student strengths and needs. The teacher, student, or parent may initiate the process.

See Appendix for:

Acceleration Table

Essential 2 - Content Extension

Content extension is the process of extending the curriculum beyond what is typical or expected in a class or grade level. **Content extension includes:**

- **Exposure beyond the regular curriculum - to new ideas, skills, and concepts not encountered before.**
- **Extension of the regular curriculum - going more broadly and deeply into the ideas already introduced in that curriculum. Extend learning beyond level through advanced content, materials, and complexity.**
- **Concept development - using a concept introduced within the regular curriculum and exploring its meaning and implications across the curricular areas.**

Content extension requires depth, complexity, and novelty:

Depth encourages students to venture further, deeper, with greater elaboration, through quality of subject matter, rules and ethics, language and patterns. It involves learning from:

- Concrete to abstract;
- Familiar to unfamiliar;
- Know to unknown;
- Literal to synthesized.

Depth						
	Details (Essentials)	**Patterns**	**Trends**	**Unanswered Questions**	**Rules & Ethics**	**Big Ideas**
Questions	What are the gaps in the information?	What else might students need to know to increase their knowledge?	What other information would clarify/ explain this?	How have experts in this and other fields dealt with this information?	What rule(s) characterize the area of study?	What facts and ideas form the foundation of your information?
Research Skills	Collections of readings.	Draw conclusions.	Check for accuracy, authenticity.	Locate and cite related questions.	Look for changes in rule(s).	Gather information on current issues.
Thinking Skills	Describe in detail.	Prove or verify with evidence.	Identify the most important (prioritize and judge).	Categorize, classify substantive from superficial information.	Analyze the impact of policies and rules.	Create a model or analogy to express the big idea(s).

Adapted from: Sandra Kaplan & Bette Gould for classroom use only, ©1998.

Complexity helps students make connections and identify relationships and associations between, within, and across subjects and disciplines. It focuses on:

- Varying perspectives;
- Issues, problems, and themes;
- Conceptual learning.

Complexity				
	Relate Over Time	**Relate From Different Perspective**	**Relate Between the Disciplines**	**Relate Across the Disciplines**
Questions	What influence might time have on knowledge related to the area of study?	What might be puzzling about this? What might be perplexing, difficult connections or interactions?	What might be the recognizable links between elements of the information?	What attributes might describe the various interactions?
Research Skills	Paraphrase	Use multiple and varied resources.	How would people in various disciplines research the same concepts?	Collect media evidence.
Thinking Skills	Define part/whole relationships.	Combine or form essential parts to create new wholes.	Note ambiguity.	Explain the reasons why.

Adapted from: Sandra Kaplan & Bette Gould for classroom use only, ©1998.

Novelty encourages students to create a personal understanding or connection to the subject area, thereby making content more memorable. It provides opportunities to:

- Interpret meaning and give personal insights;
- Use non-traditional study methods;
- Approach content through inquiry, experimentation, invention, and exploration;
- Synthesize information using irony, paradox, and metaphors.

Novelty				
	Exploration	**Inquiry**	**Interpretations**	**Unique Approaches of Study**
Questions	What do people in this field do and think about? What does this information mean? How is the information organized to help people use it better?	To what degree is this familiar, surprising, or intriguing to me? How do people in this discipline handle ambiguity, uncertainty, persistence, failure, success, collaboration, compromise?	What is the significance of the topic? In what other contexts can I use what I have learned? How are perspectives shaped by time, place, culture, events, and circumstances?	How do experts in the field go about research in this field? What are the methods used by practitioners and contributors in the field to generate new questions, to generate new knowledge, and to solve problems?
Research Skills	In collections of readings, locate and cite related questions.	Generate questions, focus on topic, evaluate resources.	Draw conclusions. Check for authenticity and accuracy	Use of primary, multiple, varied, and non-traditional resources.
Thinking Skills	Combine, evaluate, provide alternative perspectives.	Prove or verify with evidence. Analyze impact of policies and rules.	Note ambiguity. Explain reasons why.	Assess, evaluate, judge "power" of resources.

Questions adapted from Parallel Curriculum, 2002

It is important to realize that these components interact. For example, depth of learning at some point demands both novelty and complexity -- a student cannot study extinction without recognizing the relationship between areas of biology, natural phenomena and man's influence. Personal interests may also come into play.

Suggestions for District Leaders in Gifted Education

- Pre-assess student learning and accommodate the level of instruction for depth, complexity, and novelty, based on the individual student data.
- Develop school board policies and/or district protocol to ensure that content extension is a systemic and comprehensive option.
- Build understanding and on-going support of content extensions among staff:
    - Associate interrelated concepts.
    - Evaluate facts and arguments critically.
    - Create new ideas and originate new lines of thought.
    - Reason through complex problems.
    - Consider alternative environmental surroundings.

- Coordinate vertical collaboration and curriculum mapping to facilitate long term planning.
- Provide students with exit options if needs are not addressed.
- Involve parents and students in the decision-making process for the success of the student. Flexibility of programming is important; what works for one child may not work for all.
- Combine content extensions with other provisions and modifications, such as:
    - Research skills.
    - Higher order thinking skills.
    - Metacognitive skills.
    - Multidisciplinary or thematic connections.
    - Independent study.
    - Mentorships.
    - Enrichment triad model.
    - Curriculum compacting to support time for extension.

Parent Involvement

- Provide input/perspective to advanced learning plans in collaboration with teachers, support people, and child.
- Seek out and share information about community resources with schools.
- Coordinate, facilitate, or provide transportation for content extension opportunities as needed.
- Collaborate with teacher and student on content extension assignments.
- Monitor student progress and satisfaction.
- Commit to attend parent, teacher, student conference to review academic achievement and social-emotional development.

Special Considerations:

Rural/Outlying Towns, Gender: Examine options such as mentorship, alternative assessments, problem-based learning, local higher education resources, local/community issues, and distance learning.

Linguistically and Culturally Diverse Learners: Implement acceleration strategies for ESL students in an area of demonstrated need while English skills are being developed. Focus on individual strengths and needs. Provide hands-on activities and creative problem solving to expand language skills.

Children of Poverty: Consider the importance of age-level peers and cultural biases. Focus on individual strengths and needs. Provide hands-on activities and creative problem solving to expand language skills.

Frequently Asked Questions:

Why is content extension so important for gifted learners?

Enhancing the content increases student motivation, engagement, challenge, and depth of learning.

What are some classroom approaches for enhancing content extension?

- Focus on broad-based issues, themes, problems.
- Integrate disciplines (multi-disciplinary studies).
- Engage in self-selected independent study.
- Use new techniques, resources, materials.
- Examine multiple perspectives of events (time, culture, people).
- Challenge existing ideas; produce new ideas.
- Focus on open-ended questions and tasks.
- Create real-world products.
- Evaluate problems for inconsistencies, missing elements.

According to Passow (1996), if we answer "yes" to any of the following questions then the activity is probably not advanced or differentiated enough to be specifically appropriate for the gifted learner.

Is this an activity every child should be doing?
Is this an activity every child would like to do?
Is this an activity that every child is capable of doing?

What are some programs that might be used as after-school opportunities?

After-school programs are often appropriate for many students, but should not be considered as fully meeting the instructional needs of a gifted learner. However, Junior Great Books Club, Math Counts Club, Internships, Destination Imagination, Odyssey of the Mind, and Future Problem Solving are just a few examples of some appropriate offerings.

See Appendix for:

Differentiated Instruction Assessment Rubric
Highlights from Research: Reading for Advanced Learners
Highlights from Research: How to Differentiate Instruction in Mixed-ability Classrooms
Highlights from Research: The Parallel Curriculum

Essential 3 - Higher Order Thinking Skills

Higher order thinking skills are questioning in discussions or providing activities based on processing that requires analysis, synthesis, evaluation, or other critical thinking skills.

The infusion of higher order thinking skills into instruction can be a valuable tool for teachers of the gifted in planning discussion questions, in organizing learning tasks, in planning literature and writing assignments, and in the development of challenging curriculum. The results support student learning with meaning, transfer of knowledge, and a grasp of higher level cognitive strategies which will serve gifted students in all curricular areas. For gifted students representing underserved populations, a bridging or transition curriculum (Kaplan, 2004) which infuses higher order thinking into student learning raises the bar, especially when connected to specific, content-related instruction.

Suggestions for District Leaders in Gifted Education:

- Become familiar with gifted and talented research regarding effective strategies and models for higher order thinking skills.
- Observe instruction and provide teacher feedback and coaching regarding questioning levels, problem solving, and critical thinking.
- Provide and support faculty dialogue about higher order thinking skills instruction, in particular when relative to low socio-economic and minority students.
- Provide and support on-going appropriate professional development across all grade levels for teachers of gifted students to receive training in best teaching practices regarding the teaching of higher order thinking skills.
- Monitor and provide feedback to students regarding higher order thinking skills.
- Build capacity for teachers to foster enhanced student questioning and reflection.

Parent Involvement

- Provide parents with information about and models of questioning techniques and levels.
- Collaborate with parents in using higher order thinking skills at home.
- Practice shared problem solving with a real problem.

Special Considerations:

Children of Poverty: Provide exposure, practice, and bridging or transitional activities which lead into higher order thinking skills.

Linguistically and Culturally Diverse Learners: Provide ways to transition into higher order thinking skills through content specific work.

Twice Exceptional: Provide higher order thinking skills which challenge thinking and are adapted to the learning strengths of the student. Supply scaffolding support. Use models, diagrams, and hands-on thinking challenges to encourage higher order thinking and problem solving.

Underachieving Gifted Learners: Encourage students to use higher order thinking skills by challenging their thinking, providing support in strength areas, and stressing real world connections to their school experiences. Supply scaffolding support.

Frequently Asked Questions:

What are the benefits of teaching higher order thinking skills (HOTS) to gifted students?

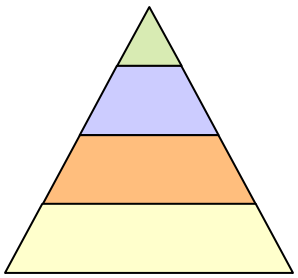
- Higher Order Thinking Skills (HOTS) demand that students dig deeper into a subject.
- HOTS link to students' prior knowledge.
- Students learn that facts don't exist in isolation, but are always related to other information.
- Students learn that there are alternative ways of expressing information.

What are examples of some programs or strategies that encourage creativity that will integrate into lessons?

- Creative Program Solving;
- deBono's coRT Lateral Thinking;
- Future Problem Solving;
- Destination Imagination;
- SCAMPER.

How do you infuse higher order thinking skills into instruction for gifted students?

The following chart of thinking skills (found on next page) can be used to **ratchet up** instruction and assessment.



Cognitive Processes That Can Be Used to Design Learning Activities

Thinking Skill	Definition
Analytical Thinking Skills	**Various cognitive processes that deepen understanding of knowledge and skills**
Identifying characteristics	The ability to identify distinct, specific, and relevant details that characterize an object, an event, or a phenomenon.
Recognizing attributes	The facility to discern and label general or common features of a set of objects.
Making observations	The capability to perceive and select attributes of an object or experience.
Discriminating between same and different	The ability to make fine discriminations among objects, events, and people.
Comparing and contrasting	The facility to see similarities and differences among objects, events and people.
Categorizing	The ability to group objects or events according to some preconceived classification scheme.
Classifying	The capability to extract relevant attributes of a group of objects, people, or phenomena that can be used to sort or organize the same.
Ranking, prioritizing, and sequencing	The facility to place objects, events, or phenomena in hierarchical order according to some quantifiable value.
Seeing relationships	The ability to see a connection or interaction between two or more objects or phenomena.
Finding patterns	The ability to perceive and extract a repeating scheme in objects or phenomena.
Determining cause and effect	The ability to see and extract the most powerful reasons or results for a given event or action.
Predicting	The ability to see patterns, compare and contrast, identify relationships, determine cause and effect, and anticipate likely events in the future.
Making analogies	The ability to identify a relationship between two familiar items or events and similar items and events in order to problem-solve or initiate creative productivity.

Thinking Skill	Definition
Critical Thinking Skills	**Various thinking skills that are used to analyze and evaluate data and evidence in order to develop, judge the effectiveness of, or respond to an argument or position.**
Inductive thinking	The ability to draw an inferential conclusion based on repeated observations that yield consistent but incomplete data.
Deductive thinking	The ability to draw a logical conclusion from premises.
Determining benefits and drawbacks	The ability to weight the advantages and disadvantages of a given idea or action.
Determining reality and fantasy	The ability to distinguish between that which is fanciful and that which is true or actual.
Identifying value statements	The ability to recognize statements that reflect appraisals of worth that cannot be supported through objective means.
Identifying points of view	The ability to recognize that individuals and groups may have values and beliefs that influence their perspective on issues.
Determining bias	The ability to ascertain information that is value laden.
Identifying fact and opinion	The ability to distinguish between statements that can be proven and statements that reflect personal beliefs or judgments.
Judging essential and incidental evidence	The ability to assess information and categorize it into useful and less useful categories.
Identifying missing information	The ability to determine essential information that is not given or provided.
Judging the accuracy of information	The ability to determine the precision of evidence that is presented.
Judging the credibility of a source	The ability to assess whether the given information is believable, valid, and worthy to be considered.
Recognizing assumptions	The ability to distinguish between information that is commonly accepted as true and information that is conjecture.
Determining the strength of an argument	The ability to extract the reasons for an argument and evaluate the evidence as worthy.
Identifying exaggeration/overstatement of what is fact	The ability to extract statements that magnify.

Thinking Skill	Definition
Creative Thinking Skills	**Various cognitive skills that are involved in creative production.**
Fluency	The ability to generate numerous ideas or alternatives to solve a problem that requires a novel solution.
Flexibility	The ability to generate a wide variety of ideas to solve a problem that requires a novel solution.
Originality	The ability generate novel or unique alternatives to solve a problem that requires a novel solution.
Elaboration	The ability to create a large number of details that explain a novel solution to a problem.
Imagery	The ability to visualize a situation or object and to manipulate various alternatives for solving a problem without benefit of models, props, or physical objects.
Using idea/product modification techniques	The ability to use techniques such as substituting, combining, adapting, modifying, making larger or smaller, putting to new uses, eliminating, reversing, or rearranging parts to make a more useful whole.

Thinking Skill	Definition
Executive Processes	**Various cognitive skills that are involved in organizing, synthesizing, generalizing, or applying knowledge.**
Summarizing	The ability to reduce a written or oral narrative to its essential components.
Metacognition	The ability to consciously monitor, describe, and reflect upon one's thinking.
Setting goals	The ability to set desirable outcomes in any situation.
Formulating questions	The ability to develop relevant and precise queries related to any endeavor.

See Appendix for:

Armstrong, Thomas (1998). *Awakening Genius in the Classroom.* Alexandria, VA: ASCD.

Armstrong, Thomas (2003). *The Multiple Intelligences of Reading and Writing: Making the Words Come Alive*. Alexandria, VA: ASCD.

Benjamin, Amy (2002*). Differentiated Instruction: A Guide for Middle and High School Teachers.* Larchmont, NY: Eye on Education.

Betts, G., & Kercher, J. (1999). *Autonomous Learner Model: Optimizing Ability*. Greeley, CO: ALPS.

Burns, D. (1993). *A Six-Phase Model for the Explicit Teaching of Thinking Skills.* Storrs, CT: University of Connecticut, National Research Center on the Gifted and Talented.

Bloom, B.S. (1965). *Taxonomy of Educational Objectives, Handbook I, Cognitive Domain.* New York: Longman.

Campbell, L. & Campbell, B (1999). *Multiple Intelligences and Student Achievement: Success Stories from Six Schools*. Alexandria, VA: ASCD.

CASL Roundtable (2002), *CASL Cache: A Collection of Tools and Templates to Differentiate Instruction.* Centennial BOCES.

Clark & Zimmerman (2004). *Teaching Talented Art Students: Principles and Practices.* New York, NY: Teachers College Press.

Coil, C. (1997), *Teaching Tools for the 21st Century*. Marion, IL: Pieces of Learning.

Cole, R.W. (1995). *Educating Everybody's Children: Diverse Teaching Strategies for Diverse Learners*. Alexandria, VA: ASCD.

Colorado Department of Education (2004). *Colorado Differentiating Curriculum, Instruction and Assessment Facilitator's Guide.* Denver, CO: CDE.

Destination ImagiNation: www.destinationimagination.org

Feldhusen, J.F., & Treffinger, D.J. (1975). *Teaching Creative Thinking and Problem Solving.* Dubuque, Iowa: Kendall-Hunt.

Future Problem Solving: www.fpsp.org

Gallagher, J. (1964). *Teaching the Gifted Child*. Boston: Allyn & Bacon.

Gentry, M. (1999). *Promoting Student Achievement and Exemplary Classroom Practices through Cluster Grouping: A Research-based Alternative to Heterogeneous Elementary Classrooms.* Storrs, CT: The National Research Center on the Gifted and Talented.

Gregory, Gayle (2003*). Differentiated Instructional Strategies in Practice: Training, Implementation, and Supervision.* Thousand Oaks, CA: Corwin Press.

Gregory & Chapman (2002). *Differentiated Instructional Strategies: One Size Doesn't Fit All*. Thousand Oaks, CA: Corwin Press.

Gregory & Kuzmich (2004). *Data Driven Differentiation in the Standards-based Classroom.* Thousand Oaks, CA: Corwin Press.

Heacox, Diane (2002). *Differentiating Instruction in the Regular Classroom: How to Reach and Teach All Learners, 3-12*. Minneapolis, MN: Free Spirit Publishing.

Jensen, Eric (1998). *Teaching with the Brain in Mind*. Alexandria, VA, ASCD.

Kaplan, S. & Cannon, M. (2000). *Curriculum Starter Cards: Developing Differentiated Lessons for Gifted Students.* Austin, TX: Texas Association for the Gifted and Talented.

Kingore, B. (2004). *Differentiation: Simplified, Realistic, and Effective: How to Challenge Advanced Potentials in Mixed-ability Classrooms.* Austin, TX: Professional Associates Publishing.

Kingore, B. (2001). *The Kingore Observation Inventory 2nd Edition*. Austin, TX: Professional Associates Publishing.

Nottage & Morse (2002*). Independent Investigation Method*. Epping, NH: Active Learning Systems.

Parnes, S.J. (1967). *Applied Imagination*. New York: Scribners.

Purcell, J.H. (1998). *Total Talent Portfolio.* Mansfield Center, CT; Creative Learning Press.

Reis, S. M., Burns, D. E., & Renzulli, J. S. (1992). *Curriculum Compacting.* Mansfield, CT: Creative Learning Press.

Renzulli, J. (1977*). The Enrichment Triad Model: A Guide for Developing Defensible Programs for the Gifted and Talented*. Mansfield Center, CT: Creative Learning Press.

Renzulli, J., & Reis, S (1997). *The School-wide Enrichment Model*. Mansfield Center, CT: Creative Learning Press.

Rogers, K.B. (2001). *Re-forming Gifted Education*. Scottsdale, AZ: Great Potential Press.

Ryser, G., & McConnell, K. (2003). *Practical Ideas that Really Work for Students who are Gifted*. Austin, TX: Pro-Ed: www.proedinc.com

Rutherford, P. (1998). *Instruction for All Students.* Just ASK Publications, Inc.

Strip, C.A., & Hirsch. (2000). *Helping Gifted Children Soar*. Scottsdale, AZ: Great Potential Press.

Schlemmer, P., & Schlemmer, D. *Challenging Projects for Creative Minds*. Minneapolis, MN: Free Spirit Publishing.

Silver, Strong, Perini (2000). *So Each May Learn: Integrating Learning Styles and Multiple Intelligences*. Alexandria, VA; ASCD.

Smutny, J. F. *Teaching the Young Gifted Child in the Regular Classroom Curriculum for Gifted Learners.* The College of William and Mary, Williamsburg, VA.

Smutny, J., S. Walker and E. Meckstroth. (1997). *Teaching Young Gifted Children in the Regular Classroom [ages 4-9]*. Minneapolis, MN: Free Spirit Publishing.

Sousa, David A. (2003). *How the Gifted Brain Learns.* Thousand Oaks, CA; Corwin Press.

Sternberg, R.G., and Bhana, K (1986). Synthesis of Research on the Effectiveness of Intellectual Skills Programs: Snake-Oil Remedies or Miracle Cures*? Educational Leadership,* 44(2), 60-67.

Tomlinson, C.A. (1999). *The Differentiated Classroom: Responding to the Needs of All Learners*. Alexandria, VA: ASCD.

Tomlinson, C.A. & Eidson, C. C. (2003). *Differentiation in Practice: A Resource Guide for Differentiating Curriculum (3 volumes: K-5, 5-9, 9-12).* Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).

Tomlinson, C.A. (2003), *Fulfilling the Promises of the Differentiated Classroom: Strategies and Tools for Responsive Teaching.* Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C.A., (2001), *How to Differentiate Instruction in Mixed-ability Classrooms 2nd Edition.* Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson & Allan (2000*). Leadership for Differentiating Schools and Classrooms.* Alexandria, VA: ASCD.

Tomlinson, C., Kaplan, S., Renzulli, J., Purcell, J., Leppien, J., & Burns, D. (2002). *Parallel Curriculum: A Design to Develop High Potential and Challenge High-ability Learners.* Thousand Oaks, CA: Corwin Press.

Torrance, E.P. (1962). *Guiding Creative Talent*. Englewood Cliffs, NJ.: Prentice-Hall.

Torrance, E.P. (1970). *Creative Learning and Teaching*. New York; Dodd, Mead.

Treffinger, D.J. (1980). *Encouraging Creative Learning for the Gifted and Talented.* Ventura, CA.:Ventura County Supt. of Schools, LTI Publications.

Winebrenner, S. (2001). *Teaching Gifted Kids in the Regular Classroom.* Minneapolis, MN: Free Spirit Publishing.

Wolfe, Patricia (2001). *Brain Matters: Translating Research into Classroom Practice*. Alexandria, VA, ASCD.

Component 3: Content Options To Address Identified Areas of Strength

Programming for gifted learners focuses upon content options that provide for continual learning and growth in their specific area/s of strength.

Colorado Guidelines indicate the necessity to identify gifted students in their area/s of strength. To ensure student success, quality instruction is required for all students. Learning is inextricably linked to increasing levels of complexity and challenge, described by the concept of "ascending intellectual demand." Content options should be selected based upon this premise. Some students who are at risk of not reaching their potential require targeted interventions, short- or long-term, to ensure growth. A few gifted students require intense intervention/s for long-term success and growth.

Ascending Intellectual Demand

Ascending intellectual demand is the term used to describe the process whereby a teacher consciously increases the depth, complexity, sophistication, and novelty of thinking required by students as they acquire and process knowledge, e.g. scaffolding. The teacher accomplishes this increase in small incremental levels determined by knowledge gained through ongoing assessment of the current level of students' thinking.

Ways in which a teacher might increase intellectual demand in content:

- Provide above-level texts or supplemental materials for a unit of study.
- Provide materials written from different points of view about the same topic.
- Seek out classical literature, journalistic accounts from the time period being studied, eye-witness accounts, diaries, journal entries, etc. to expose students to writing styles, vocabulary, and grammar from the past.
- Use artifacts, photographs, drawings, and other visual materials rather than only written accounts.
- Expose students to the current research questions that interest experts in a field today.
- Require students to research primary sources for their information.

Ways in which a teacher might increase intellectual demand in process:

- Ask students to consider multiple points of view, multiple solutions or responses, or multiple paths to solutions.
- Require students to discriminate between relevant and irrelevant information.
- Assign students to infer, draw conclusions, and create generalizations based on data.
- Have students identify assumptions - their own or those of a writer or researcher.
- Teach students creative thinking strategies so that they can generate numerous, varied, and innovative possibilities and then choose effective solutions to problem situations.
- Teach students to recognize bias, to judge the credibility of sources, and to detect inconsistencies in arguments.

- Ask students to find patterns and relationships among disparate elements that they have studied.
- Require students to draw up and revise plans of action for their own work.
- Emphasize goal-setting and self-evaluation.
- Encourage metacognition (the ability to monitor, describe, and reflect on one's own thinking) by:
    - The use of journal prompts and interactive journals.
    - Learning summaries.
    - Creating thinking maps that describe the type of thinking used.
    - Describing the desired thinking in rubrics.
    - The use of in-depth portfolio choices and captions.
    - Debriefing sessions after lessons or units of study.
    - Giving students the vocabulary to discuss their thinking by naming thinking skills as they are used and taught.

Colorado School-wide Model for Student Success

Colorado's 3-Tiered Model is based upon the following premises:

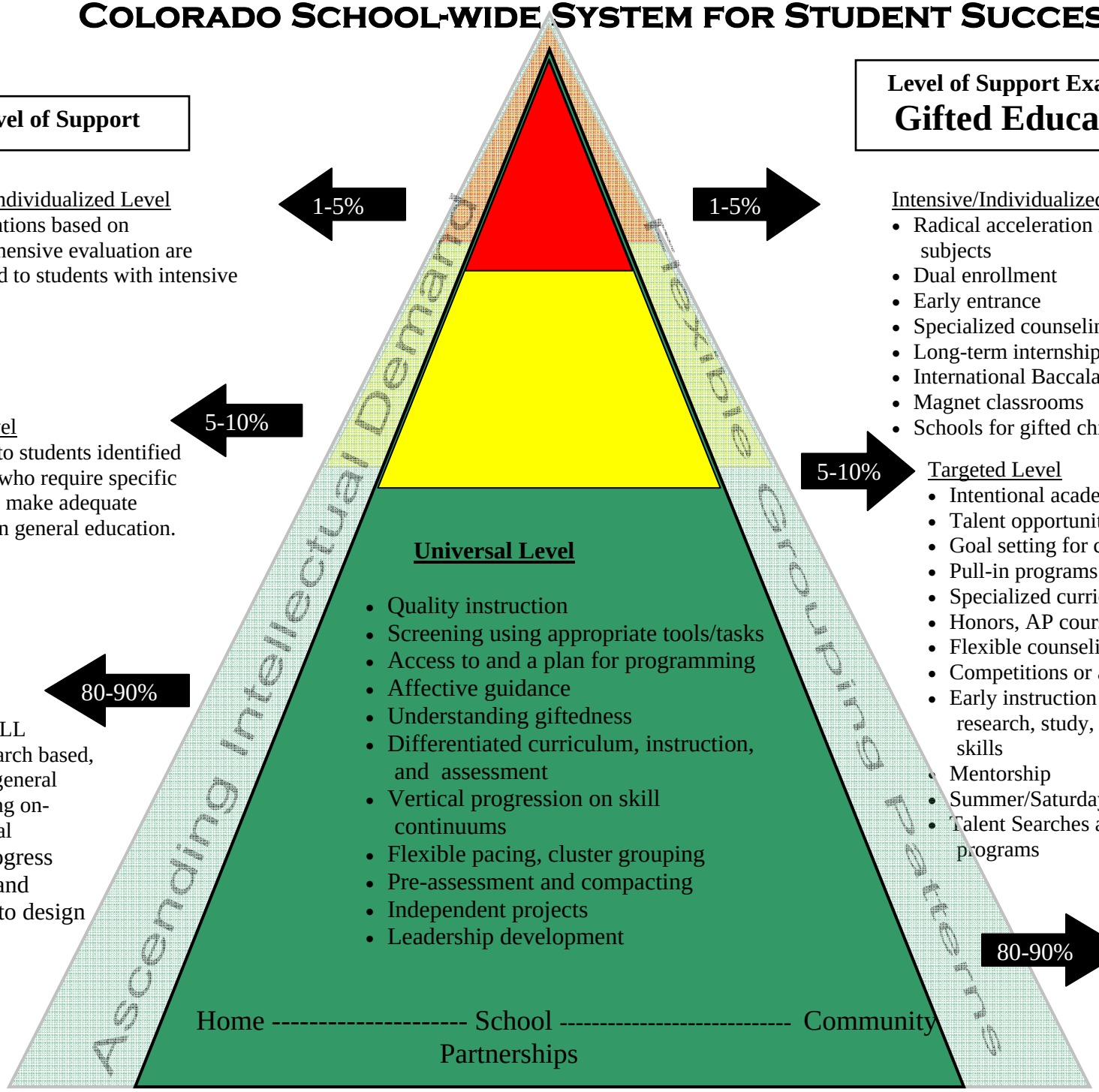
- High quality research-based general education instruction;
- General education teachers who are active in student assessment;
- Universal screening of academics and behavior;
- Research-based interventions to address a student's needs;
- Systematic assessment of the fidelity of intervention implementation;
- Progress monitoring of intervention effectiveness;
- Partnerships between home, school, and community positively impact students.

A goal of the 3-tiered Model is that:

- Students are screened early for at-risk and strength traits.
- Strengths and difficulties direct instructional decisions.
- Alignment exists for assessment, instruction, and progress monitoring.

The Colorado School-wide Model for Student Success will be used to frame programming options for gifted and talented students. The following section provides examples of programming options by area of giftedness: language arts, math, creativity, leadership, spatial, fine arts (musical, performing, artistic). These models graphically represent the merger of the concept of "ascending intellectual demand" at each of the 3-tiers.

Colorado School-wide System for Student Success



Level of Support

Intensive/Individualized Level
- Interventions based on comprehensive evaluation are provided to students with intensive needs.

1-5%

Targeted Level
- Provided to students identified at-risk or who require specific support to make adequate progress in general education.

5-10%

Universal Level
- Provided to ALL students; research based, high quality, general education using on-going universal screening, progress monitoring, and assessments to design instruction.

80-90%

Level of Support Examples
Gifted Education

1-5%

Intensive/Individualized Level
- Radical acceleration in one or more subjects
- Dual enrollment
- Early entrance
- Specialized counseling
- Long-term internship
- International Baccalaureate Program
- Magnet classrooms
- Schools for gifted children

5-10%

Targeted Level
- Intentional academic programs/groups
- Talent opportunities
- Goal setting for college planning
- Pull-in programs
- Specialized curriculum programs
- Honors, AP courses, advanced online
- Flexible counseling groups
- Competitions or advanced clubs
- Early instruction in presentation, research, study, and organization skills
- Mentorship
- Summer/Saturday school
- Talent Searches and University programs

Universal Level

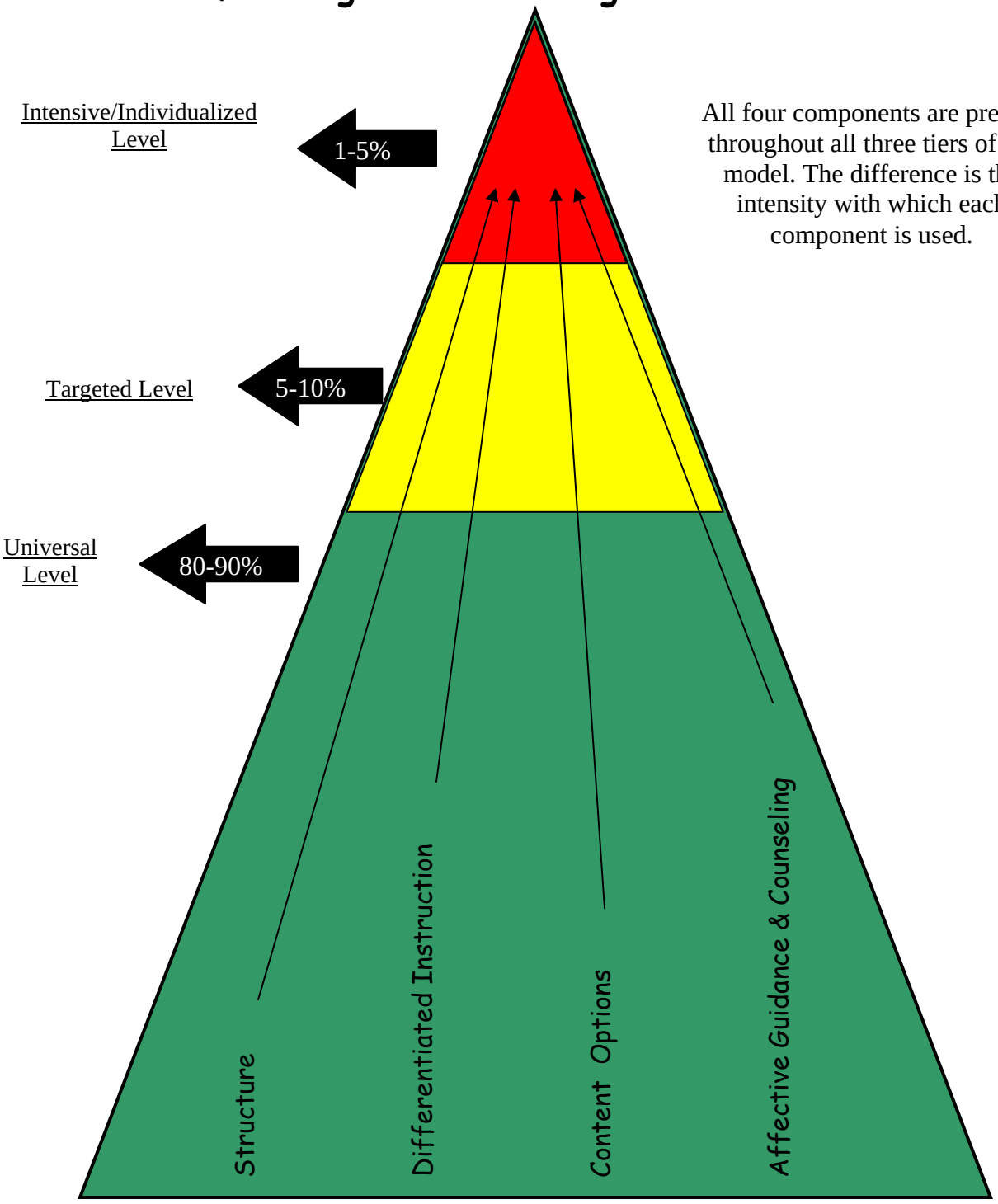
80-90%

Universal Level
- Quality instruction
- Screening using appropriate tools/tasks
- Access to and a plan for programming
- Affective guidance
- Understanding giftedness
- Differentiated curriculum, instruction, and assessment
- Vertical progression on skill continuums
- Flexible pacing, cluster grouping
- Pre-assessment and compacting
- Independent projects
- Leadership development

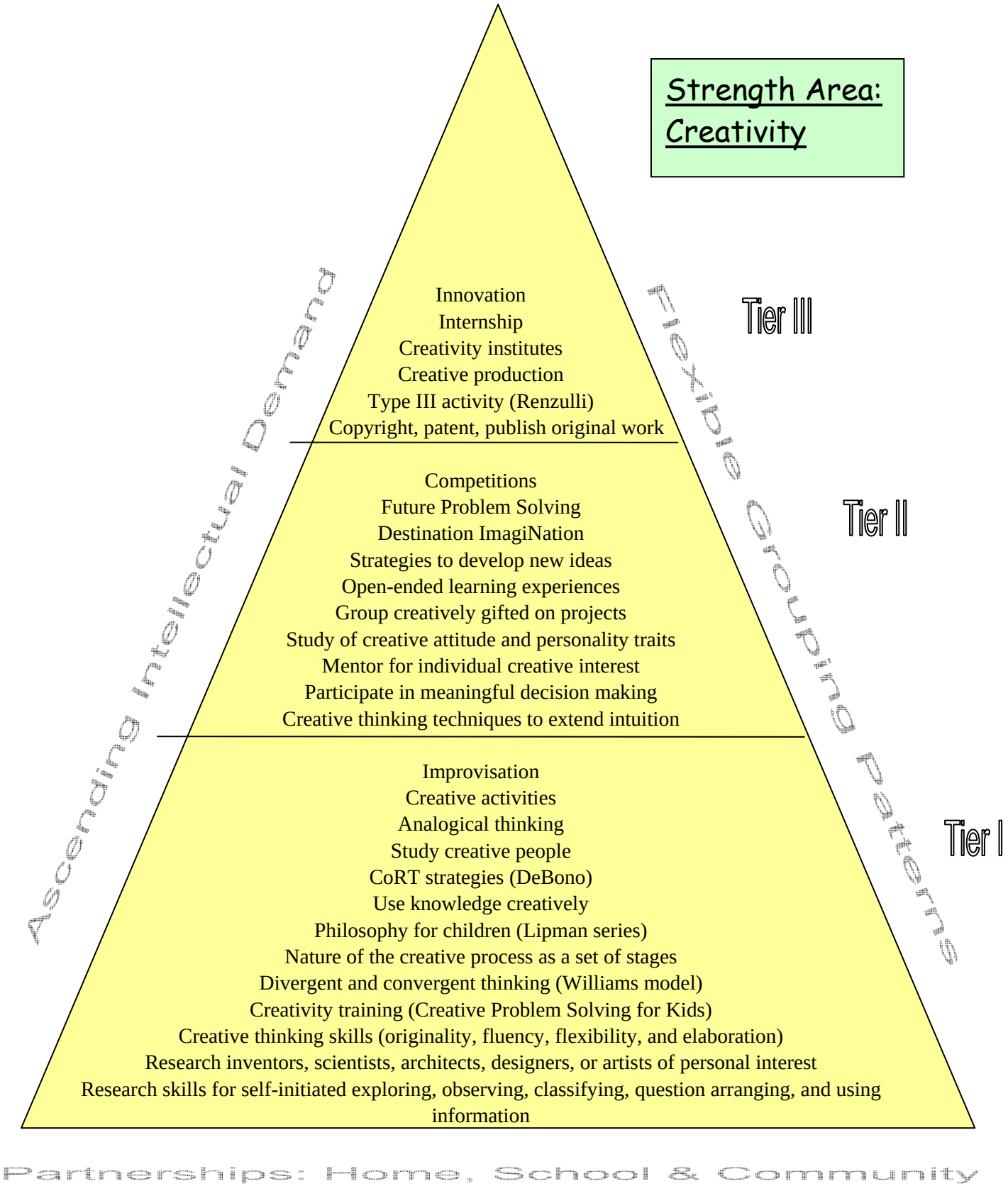
Home ---------- School ---------- Community Partnerships

"Collaboration and systemic responsiveness supporting learning and growth for all students"

How Programming Components Fit Within the 3-tiered Model for Progress Monitoring and Interventions



All four components are present throughout all three tiers of the model. The difference is the intensity with which each component is used.


Strength Area: Creativity
Innovation
Internship
Creativity institutes
Creative production
Type III activity (Renzulli)
Copyright, patent, publish original work
Tier III
Competitions
Future Problem Solving
Destination ImagiNation
Strategies to develop new ideas
Open-ended learning experiences
Group creatively gifted on projects
Study of creative attitude and personality traits
Mentor for individual creative interest
Participate in meaningful decision making
Creative thinking techniques to extend intuition
Tier II
Improvisation
Creative activities
Analogical thinking
Study creative people
CoRT strategies (DeBono)
Use knowledge creatively
Philosophy for children (Lipman series)
Nature of the creative process as a set of stages
Divergent and convergent thinking (Williams model)
Creativity training (Creative Problem Solving for Kids)
Creative thinking skills (originality, fluency, flexibility, and elaboration)
Research inventors, scientists, architects, designers, or artists of personal interest
Research skills for self-initiated exploring, observing, classifying, question arranging, and using information
Tier I
Ascending Intellectual Demand
Flexible Grouping Patterns
Partnerships: Home, School & Community

Frequently Asked Questions

What can I do to enhance creativity in my classroom?

- Provide a private place for creative work to be done.
- Provide materials (e.g. musical instruments, sketch books, scientific instruments).
- Encourage self-expression and display the students' creative work.
- Create a creative atmosphere with good music, books, and pictures.
- Do your own creative work.
- Value the unusual, the divergent, and the creative work of others.
- Provide special classes.
- Emphasize that talent is only a small part of creative production and that discipline and practice are important.
- Get creativity training.
- Reduce anxiety in classroom, especially that created by the teachers.
- Nurture individuation and differences within the class.
- Provide situations that present incompleteness and openness.
- Allow and encourage lots of questions.
- Emphasize self-initiated exploring, observing, questioning, feeling, classifying, recording, translating, inferring, testing inferences, and communication.
- Help the student learn by mistakes.
- Reinforce creativity, but do not place too high a reward on it, as this makes creative behavior "high stakes" and increases anxiety.
- Give opportunities to investigate ideas of successful, eminent people who used the creative process.

What are some blocks to creativity?

- Expectation of judging and evaluating.
- Constantly being watched or observed while working on a creative project.
- Creating a competitive atmosphere.
- Conforming to others' expectations.
- Anxiety.
- Perfectionism.
- Reward systems.
- Authoritarianism.
- External locus of control.
- Trying to be creative.
- Requiring the one right answer.

Can creativity be taught?

We can teach some of the aspects and skills of creative behavior. We can model creative acts and attitudes. We can provide safe places for creativity to be expressed, and value its expression. We can take the risk of sharing our own creativity. Six real-life results of creativity training in elementary and high schools were reported by Torrance (1985). The results were increased satisfaction; evidence that academic achievement is not affected by creative performance; writing more creatively in different genres (one student even wrote a novel); growth in personality and the acquisition of a healthy self-concept; improvement in attitudes toward mathematics; and an openness to pursue creative choices.

Resources

Cameron, J. (2002). *The Artist's Way: A Spiritual Path to Higher Creativity*.

Csikszentmihalyi, M. (1997). *Creativity*. New York, NY: Harper Perennial.

Csikszentmihalyi, M. (1990). *Flow*. New York, NY: Cambridge Press.

De Bono, E. (1999). *Six Thinking Hats*. Boston: Little, Brown & Co.

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Destination ImagiNation: www.destinationimagination.org

Eberle, B. & Stanish, B. (1996*). CPS for Kids: A Resource Book for Teaching Creative Problem-solving to Children*. Waco, TX: Prufrock Press.

Future Problem Solving Programs, Lexington, KY: www.fpsp.org

Gardner, H. (1982). *Art, Mind and Brain*. New York, NY: Basic Books.

Gardner, H. (1993). *Creating Minds.* New York: Basic Books.

Gelb, M. (2000). *How to Think like Leonardo da Vinci: Seven Steps to Genius Every Day*. New York, NY: Delacorte Press.

Gordon, W.J.J. (1980). *The New Art of the Possible*: *The Basic Course in Synectics*, New York: Harper & Row.

Khatena, J. (1999). *Enhancing the Creativity of Gifted Children: A Guide for Parents and Teachers*. Cresskill, NJ: Hampton Press, Inc.

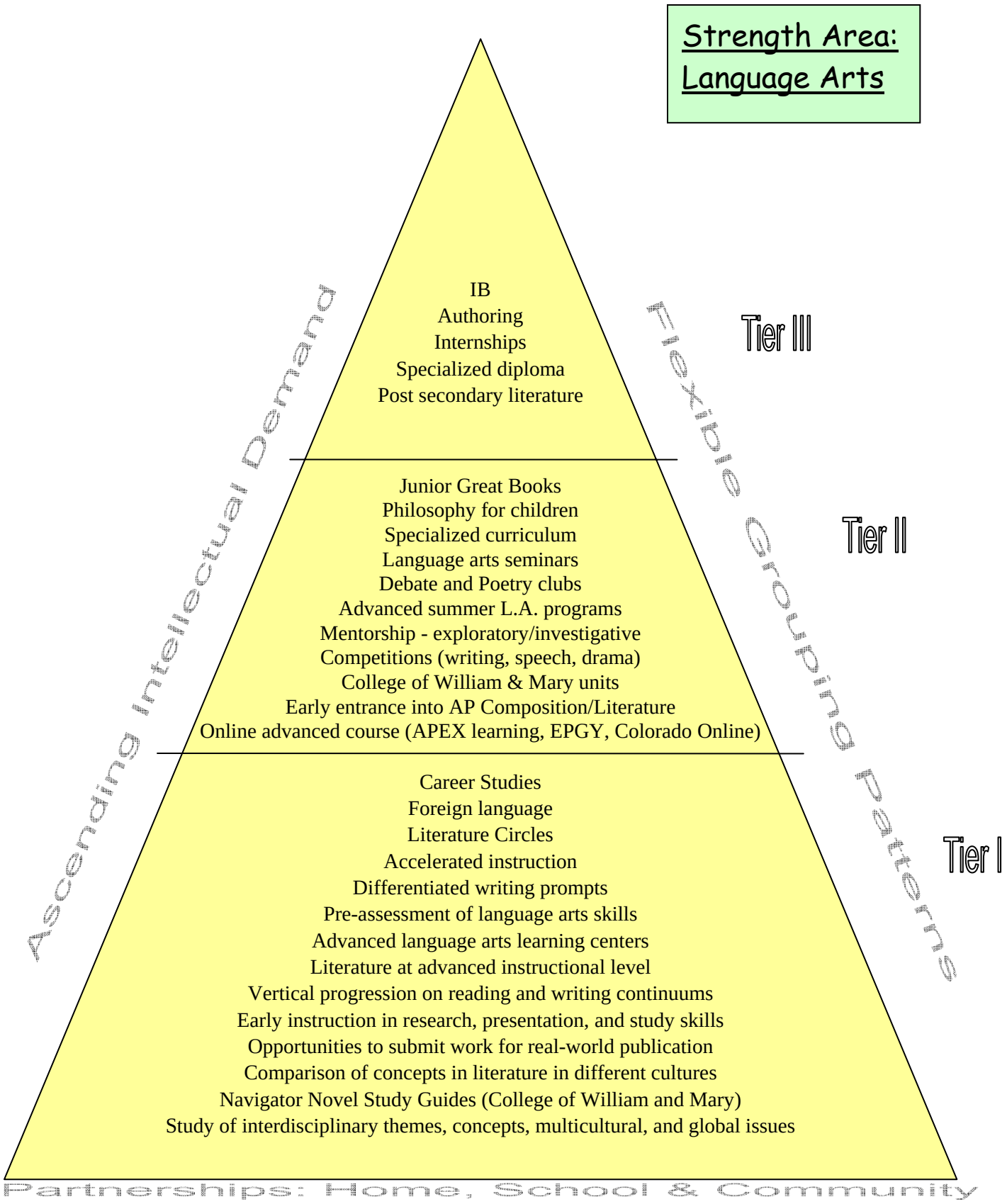
Lipman, M., (1974). *Harry Stottlemeier's Discovery*. Upper Montclair, NJ: Institute for the Advancement of Philosophy for Children.

Piirto, J. (1992). *Understanding Those who Create.* Scottsdale, AZ: Great Potential Press.

Stanish, B. (1997). *Sunflowering*. Carthage, IL: Good Apple.

Torrance, E.P. (1962). *Guiding Creative Talent*. Englewood Cliffs, NJ: Prentice-Hall.

Von Oech, R. (1990). *A Whack on the Side of the Head: How You Can Be More Creative*. New York, NY: Warner Books.


Strength Area:
Language Arts
IB
Authoring
Internships
Specialized diploma
Post secondary literature
Tier III
Junior Great Books
Philosophy for children
Specialized curriculum
Language arts seminars
Debate and Poetry clubs
Advanced summer L.A. programs
Mentorship - exploratory/investigative
Competitions (writing, speech, drama)
College of William & Mary units
Early entrance into AP Composition/Literature
Online advanced course (APEX learning, EPGY, Colorado Online)
Tier II
Career Studies
Foreign language
Literature Circles
Accelerated instruction
Differentiated writing prompts
Pre-assessment of language arts skills
Advanced language arts learning centers
Literature at advanced instructional level
Vertical progression on reading and writing continuums
Early instruction in research, presentation, and study skills
Opportunities to submit work for real-world publication
Comparison of concepts in literature in different cultures
Navigator Novel Study Guides (College of William and Mary)
Study of interdisciplinary themes, concepts, multicultural, and global issues
Tier I
Ascending Intellectual Demand
Flexible Grouping Patterns
Partnerships: Home, School & Community

Frequently Asked Questions

What if a student who needs to do an independent study can't find a topic to work on?

Suggest that the student brainstorm a list of things that pop into his head or make a list of questions that he would like to answer. Then he should prioritize the list according to how much he would like to study each topic, by putting them in numerical order, or by arranging them on a target, with the most desired topic in the "bull's eye." Either of these ideas should help the student determine a topic. Another idea is to browse the books in the nonfiction area to find a topic.

How can a teacher justify using time for independent study activities when many students are below grade level?

As the teacher allows gifted students to work on independent projects, she will actually have more time to work with other students. The independent study allows the gifted students to work at their own pace on their own topics of interest, independently.

What should the focus of instruction be for students who are proficient on Language Arts and Writing standards?

Utilize standards beyond their grade level placement to encourage continued growth. Ensure that students are reading a variety of genre, writing in a variety of styles and purposes. Students should be engaging in discussions about various pieces of quality literature as they pertain to a theme.

Resources

Dreyer, S. (1993*). The Best of Bookfinder: A Guide to Children's Literature about Interest and Concerns of Youth Aged 2-18*. Circle Pines, MN: American Guidance Services.

Great Books Foundation: www.greatbooks.org

Grant, J. (1999). *The Young Person's Guide to Becoming a Writer: How to Develop your Talent, Write Like a Pro - and Get Published!* Hawthorne, NJ: Educational Impressions.

Halsted, J.W. (2000). *Some of my Best Friends are Books (2nd Ed.).* Scottsdale, AZ: Great Potential Press, Inc.

Halsted, J.W. *Guiding the Gifted Reader*, ERIC EC Digest #481.

International Reading Association: www.reading.org

Literature Connections Novel Guide: www.mcdougallittell.com

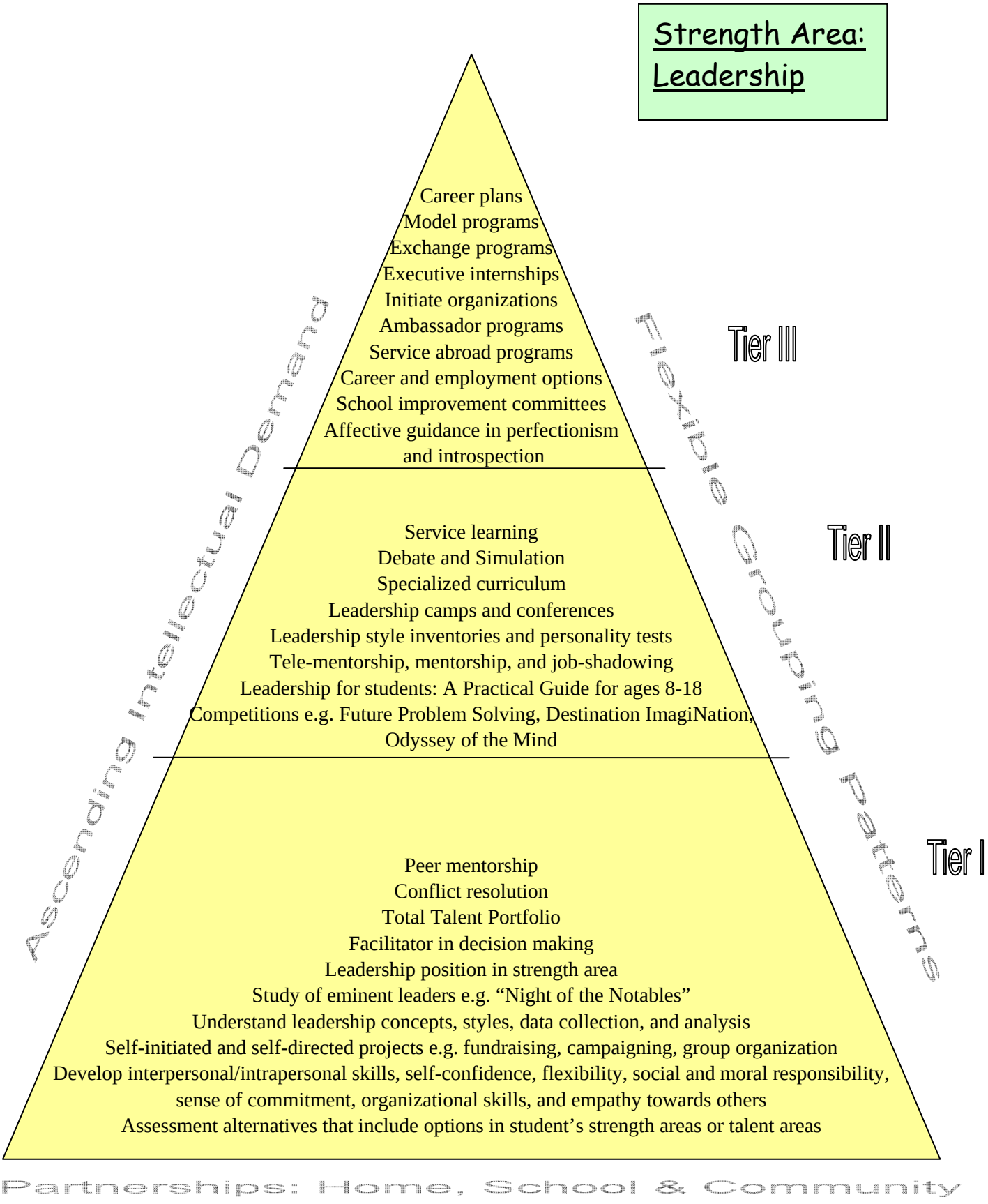
Novel Units: www.educyberstor.com

Rudman, M. K. (1995). *Children's Literature: An Issue Approach*. White Plains New York: Longman Publishers.

Schroeder-Davis, S. *Annotated Bibliography of Books for Gifted Readers:* Schroeder-davis@elkriver.k12.mn.us

The Junior Great Books Foundation: www.greatbooks.org

Center for Gifted Education, College of William and Mary, Williamsburg, VA: http://www.cfge.wm.edu


Strength Area: Leadership
Career plans
Model programs
Exchange programs
Executive internships
Initiate organizations
Ambassador programs
Service abroad programs
Career and employment options
School improvement committees
Affective guidance in perfectionism and introspection
Tier III
Service learning
Debate and Simulation
Specialized curriculum
Leadership camps and conferences
Leadership style inventories and personality tests
Tele-mentorship, mentorship, and job-shadowing
Leadership for students: A Practical Guide for ages 8-18
Competitions e.g. Future Problem Solving, Destination ImagiNation, Odyssey of the Mind
Tier II
Peer mentorship
Conflict resolution
Total Talent Portfolio
Facilitator in decision making
Leadership position in strength area
Study of eminent leaders e.g. "Night of the Notables"
Understand leadership concepts, styles, data collection, and analysis
Self-initiated and self-directed projects e.g. fundraising, campaigning, group organization
Develop interpersonal/intrapersonal skills, self-confidence, flexibility, social and moral responsibility, sense of commitment, organizational skills, and empathy towards others
Assessment alternatives that include options in student's strength areas or talent areas
Tier I
Ascending Intellectual Demand
Flexible Grouping Patterns
Partnerships: Home, School & Community

Frequently Asked Questions

How can teachers best encourage leadership concepts and skills in their students?

Teachers should create environments in their classrooms which allow students to take on more responsibility and build their self-confidence. Karnes reports that through discussions, students want to develop their thinking and creativity skills and become better speakers. Teachers should encourage students to be leaders and indicate the positive aspects of leadership. Students also said they would like information on school and club elections and opportunities to attend programs and seminars on leadership.

What is important to emphasize in leadership training for gifted students?

In leadership training it is important to emphasize cognition, interpersonal communication, decision making, and problem solving.

- The cognitive process will have a greater emphasis on the higher levels of thinking. This will include exploration, specialization, investigative skill training, and research.
- The second component is problem-solving. This skill would include problem-solving training using an appropriate model, such as the six-step process of Problem perception and definition, Incubation, Creative Thinking, Analysis, Evaluation, and Implementation.
- The third component is interpersonal communication - the ability to work and communicate with other people.
- The fourth component is decision-making skill. Effective decision-making requires independence of thinking and action, self-confidence, acceptance of responsibility, task commitment, and moral strength.

Resources

American Model United Nations International (773) 777-AMUN, Fax: (773) 777-1963.

Bennis, W. *Leaders: The Strategies for Taking Charge*. New York: Harper and Row Publishers.

Betts, G. *Leadership Enrichment Model.* University of Northern Colorado, Greeley, Colorado: www.alpspublishing

Heider, J. (1985). *The Tao of Leadership*. New York, NY, Bantam Books.

Karnes, F. & Bean, S. (1995). *Leadership for Students: A Practical Guide for Ages 8-18*. Waco, TX: Prufrock Press.

Karnes, F. & Chauvin, J. (1998). *Leadership Development Program*. Scottsdale, AZ: Great Potential Press.

Karnes, F. & Chauvin, J. (2000). *Leadership Skills Inventory Individual Form*. Scottsdale, AZ: Great Potential Press.

Leadership Publishers, Inc.: www.LeadershipPublishers.com

Lester, J. (2003). *Leadership*: *An Often-neglected Talent of Gifted Children*. National Association for Gifted Children presentation. Indianapolis, IN. Columbus, Ohio: Ohio Leadership Institute. (888) 878-LEAD.

Public Speaking: A Student Guide, 7 Steps to Writing and Delivering a Great Speech. Waco, TX: Prufrock Press.

Purcell, J. (1998). *Total Talent Portfolio*. Mansfield Center, CT: Creative Learning Press.

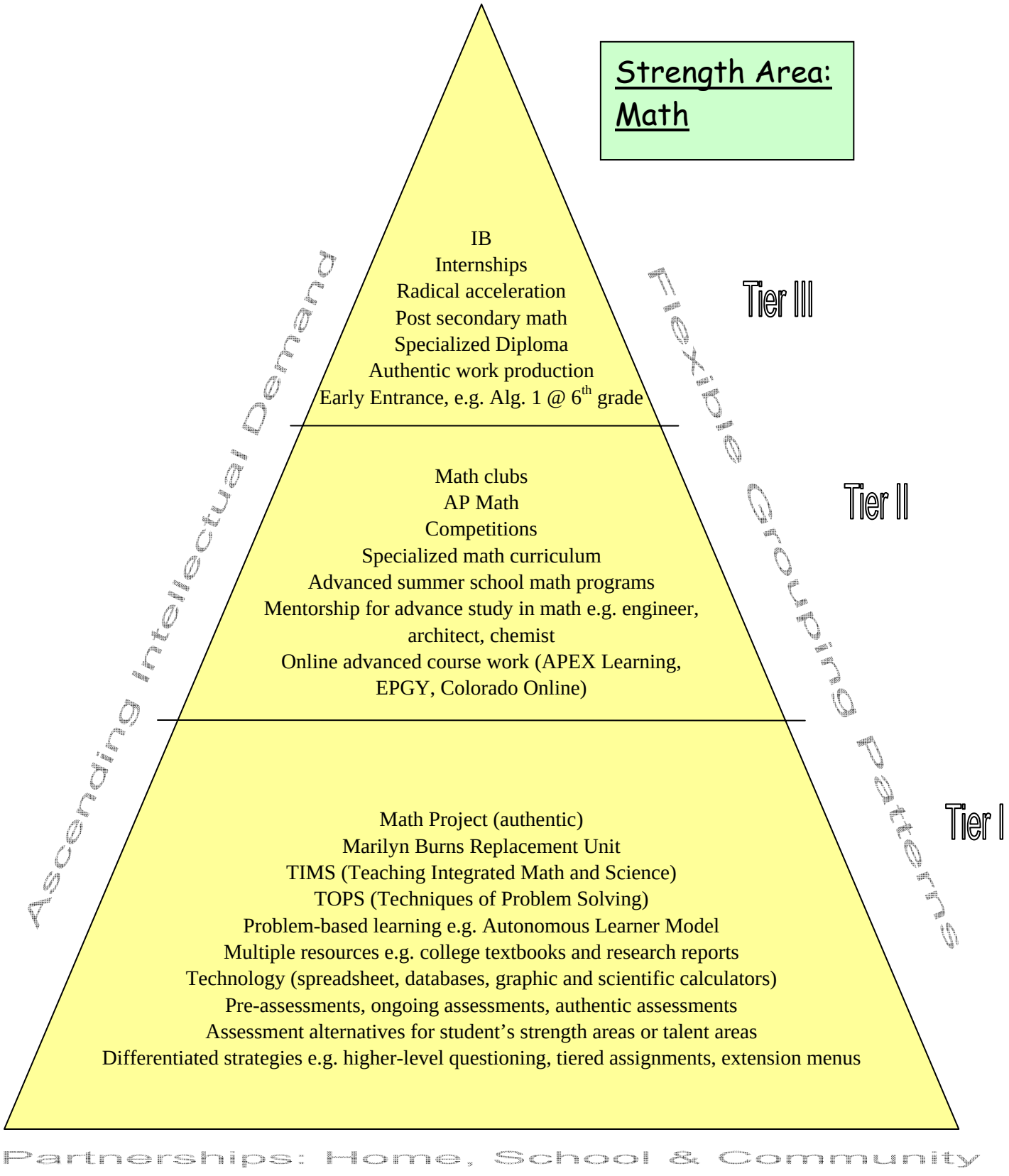
Richardson, W. & Feldhusen, J. *Leadership Education: Developing Skills for Youth*. Unionville, NY: Trillium Press.

Roach, A., Wyman, L., Brookes, H., Chavez, C., Heath, S., & Valdes, G. (1999). Leadership Giftedness: Models Revisited. *Gifted Child Quarterly*, *43 (1),* 13-24.

Ryser, G., & McConnell, K. (2003). *Practical Ideas that Really Work for Students Who Are Gifted.* Austin, TX: Pro-Ed.

Tomlinson, C., Kaplan, S., Renzulli, J., Purcell, J., Leppien, J., & Burns, D. (2002*). The Parallel Curriculum*. Thousand Oaks, CA: Corwin Press.

Young, J. (1987) *Operating Styles and Creative Leadership*. Buffalo, NY: Bearly Limited.


Strength Area: Math
IB
Internships
Radical acceleration
Post secondary math
Specialized Diploma
Authentic work production
Early Entrance, e.g. Alg. 1 @ 6th grade
Tier III
Math clubs
AP Math
Competitions
Specialized math curriculum
Advanced summer school math programs
Mentorship for advance study in math e.g. engineer, architect, chemist
Online advanced course work (APEX Learning, EPGY, Colorado Online)
Tier II
Math Project (authentic)
Marilyn Burns Replacement Unit
TIMS (Teaching Integrated Math and Science)
TOPS (Techniques of Problem Solving)
Problem-based learning e.g. Autonomous Learner Model
Multiple resources e.g. college textbooks and research reports
Technology (spreadsheet, databases, graphic and scientific calculators)
Pre-assessments, ongoing assessments, authentic assessments
Assessment alternatives for student's strength areas or talent areas
Differentiated strategies e.g. higher-level questioning, tiered assignments, extension menus
Tier I
Ascending Intellectual Demand
Flexible Grouping Patterns
Partnerships: Home, School & Community

Frequently Asked Questions

Math class is a problem-solving experience. Do gifted students still need a differentiated program?

Advanced students require sophisticated and authentic problem-solving experiences that challenge them to work toward diverse solutions.

How might the school system support advanced math exceptionality?

The school needs to have a procedure for radical acceleration for grades K-12. Part of the plan would include careful assessment and ongoing assessment as the student progresses through the program. A K-12 plan must be developed considering the options listed on the strength area (triangle) for Math. The plan should be developed in concert with parents, student, and teacher(s) which will keep all parties at all grade levels informed. Materials and resources must be available for accelerated math students where they are needed. Teachers must be willing and able to teach accelerated mathematics.

Resources

American Mathematics Competitions (middle and high school): http://www.unl.edu/amc/

American Regions Mathematics League (high school): http://www.armlmath.org/

CTY Distance Education Program in Math, John Hopkins University: ctyinfo@jhu.edu

Education Program for Gifted Youth (EPGY), Stanford University. Distance learning advance courses K-12 in Math, Physics, English, and Computer Science: www.epgy.stanford.edu

First LEGO League (FLL) Jr. Robotics Competition (ages 9-14): http://www.firstlegoleague.org/

International Mathematics Olympiad; 800-527-3690.

Jarwan, F. & Feldhusen, J. (1993). Residential Schools of Mathematics and Science for Academically Talented Youth: An Analysis of Admission Programs. Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.

Marilyn Burns Education Associates: www.mathsolutions.com

MATHCOUNTS, National Society of Professional Engineers Information Center (middle grades math competition): http://www.mathcounts.org/

Math Mind Benders Grades 3-12: www.mindwareonline.com

National Engineering Aptitude Search: http://www.jets.org/

Stock Market Game Worldwide (Grades 4 - College): http://www.smgww.org/

Summer Program in Math. John Hopkins University: ctyinfo@jhu.edu

Study of Mathematically Precocious Youth (SMPY), John Hopkins Center for Academically Talented Youth (CTY). John Hopkins University. Baltimore, MD. Program offered in several states.

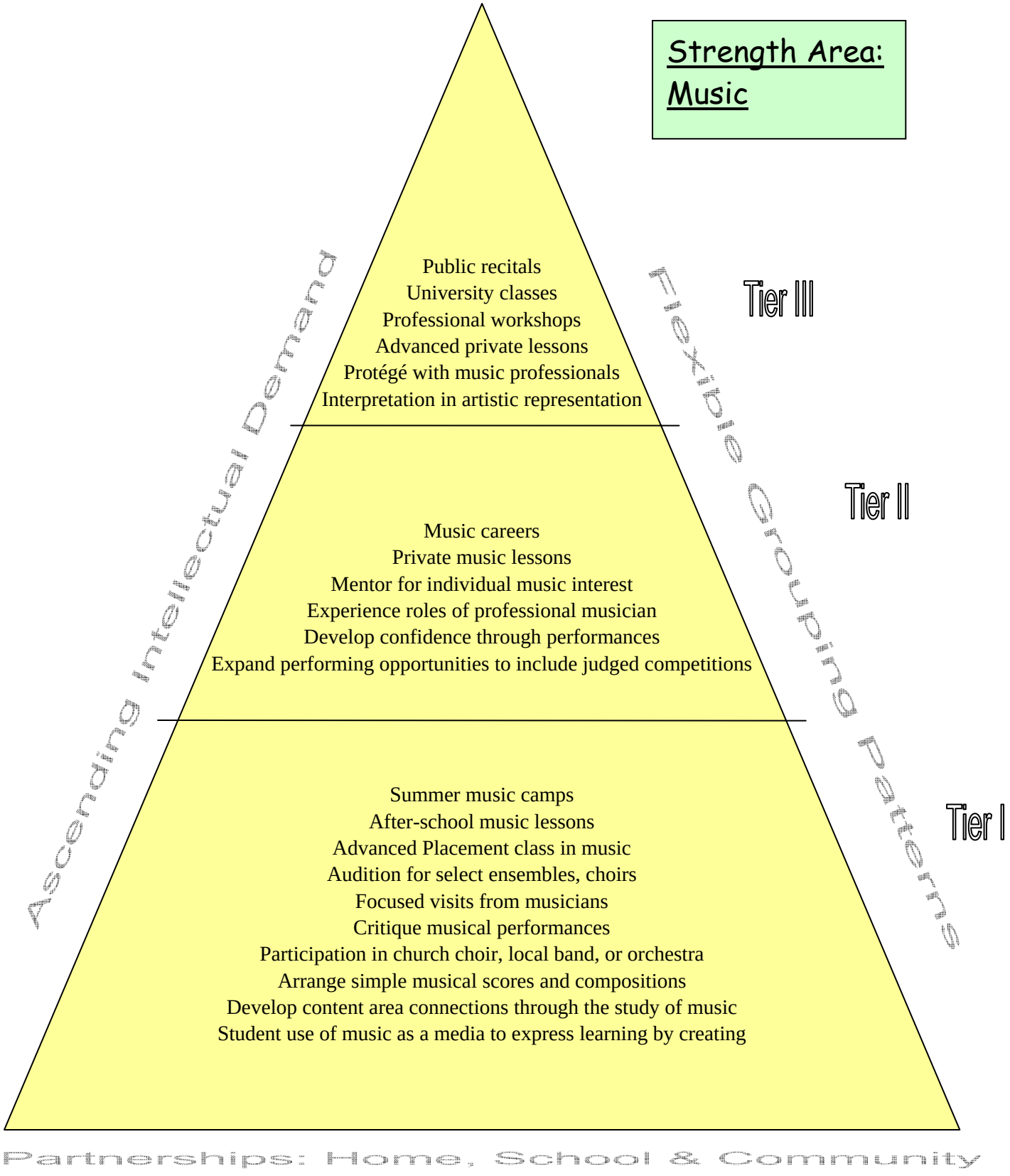
Stanley, J. C. (1991). An Academic Model for Educating the Mathematically Talented. *Gifted Child Quarterly, 35*, 36-42.

Stanley, J. C. (1991). A Better Model for Residential High Schools for Talented Youth. *Phi Delta Kappan, 72*, 471-473.

Tallent-Runnels, M. & Candler-Lotven, A. (1996). *Academic Competitions for Gifted Students: A Resource Book for Teachers and Parents.* Thousand Oaks, CA: Corwin Press, Inc.

The Math Forum, Math Education Community Center: www.mathforum.com

24 Games (elementary - high school): http://www.24game.com/


Strength Area: Music
Public recitals
University classes
Professional workshops
Advanced private lessons
Protégé with music professionals
Interpretation in artistic representation
Tier III
Music careers
Private music lessons
Mentor for individual music interest
Experience roles of professional musician
Develop confidence through performances
Expand performing opportunities to include judged competitions
Tier II
Summer music camps
After-school music lessons
Advanced Placement class in music
Audition for select ensembles, choirs
Focused visits from musicians
Critique musical performances
Participation in church choir, local band, or orchestra
Arrange simple musical scores and compositions
Develop content area connections through the study of music
Student use of music as a media to express learning by creating
Tier I
Ascending Intellectual Demand
Flexible Grouping Patterns
Partnerships: Home, School & Community

Frequently Asked Questions

I have 25 general education music students in my class; how can I provide for those 3 who have been identified with musical talent?

Provide opportunities to integrate curriculum with a content that will allow the students to study in-depth about a music topic, concept, or theme. Schedule time when the students could meet with you, the music teacher, and work on their advanced skills in music. Depending on their area of talent, find a mentor in the community so the student could meet and develop a project in an area of interest. Help the student find private or advanced music lessons in the area of his/her expertise.

I have two students identified with music talent and no music teacher in the building. How can I begin to meet their musical needs?

Meeting the needs of these musically talented students requires community support. Engage the students to participate in musical events in the community such as musical theater, community band or symphony, and choirs, or to play and/or sing at social events. Help the students find a music teacher who can advance their ability. Engage a mentor from the musical field to work with the students.

Resources

Campbell, D. (1997). *The Mozart Effect*. New York, NY: Avon Books.

Children's Music Workshop/Music Education Online: www.childrensmusicworkshop.com

Haroutounian, J. (1993). *Recent Research Identification of the Musically Talented Student: The Assessment of Musical Potential and Musical Performance*. Storrs, CONN: National Research Center for the Gifted and Talented.

Haroutounian, J. (2002), *Kindling the Spark: Recognizing and Developing Musical Talent.* Oxford University Press.

Haroutounian, J. (1993, 1998). *Explorations in Music Books 1 through 7.* Neil A. Kjos Music Company.

Haroutounian, J. (in press) *Artistic Ways of Knowing: Recognizing and Developing Talent in the Arts.*

Lebrecht, N. (1991). *The Maestro Myth: Great Conductors in Pursuit of Power.* New York: Birch Lane Press.

MENC, The National Association for Music Education: www.menc.org/publication/books/prek12st.html

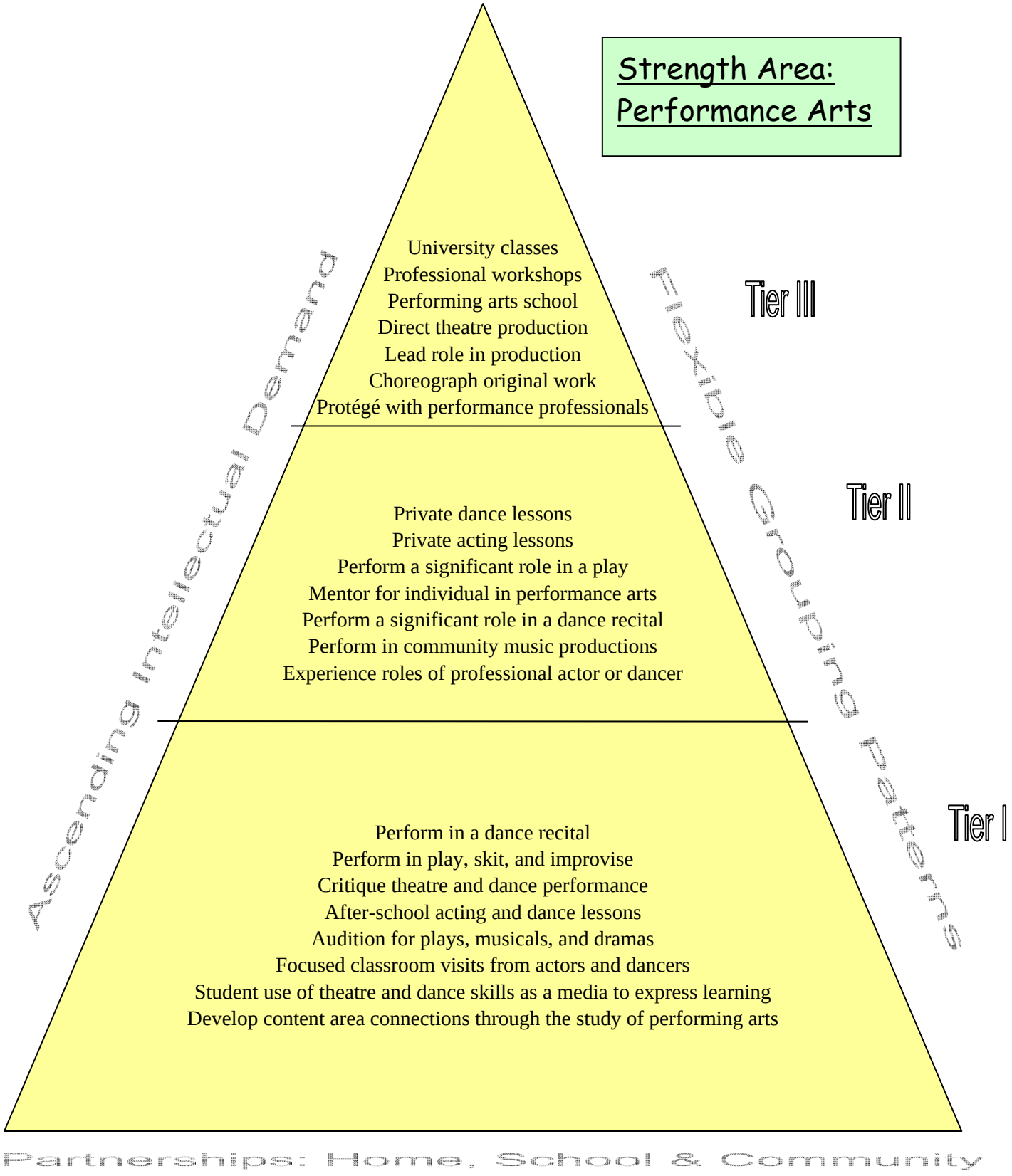
Music Education Online: www.musiceducationonline.org

Music Link Foundation: www.musiclinkfoundation.org

National Guild of Community Schools of the Arts Membership Directory. Located at local library or write to P.O. Box 8018, Englewood, NJ 07631.

Simonton, D. (1984). *Genius, Creativity, and Leadership.* Cambridge, MA: Harvard University Press.

Advanced by Design
REACH-Out and Nurture


Strength Area:
Performance Arts
University classes
Professional workshops
Performing arts school
Direct theatre production
Lead role in production
Choreograph original work
Protégé with performance professionals
Tier III
Private dance lessons
Private acting lessons
Perform a significant role in a play
Mentor for individual in performance arts
Perform a significant role in a dance recital
Perform in community music productions
Experience roles of professional actor or dancer
Tier II
Perform in a dance recital
Perform in play, skit, and improvise
Critique theatre and dance performance
After-school acting and dance lessons
Audition for plays, musicals, and dramas
Focused classroom visits from actors and dancers
Student use of theatre and dance skills as a media to express learning
Develop content area connections through the study of performing arts
Tier I
Ascending Intellectual Demand
Flexible Grouping Patterns
Partnerships: Home, School & Community

Frequently Asked Questions

In what ways might I support children talented in the performing arts?

Provide a place in the classroom where creative work can be done: space for movement, area for art supplies, musical instruments, recordings, poetry, Readers Theatre, short plays and skits. Encourage students to try out for children's community theater, display work in the classroom and in appropriate areas, e.g. library, store window, local restaurants, and more. Share your own performing arts area of interest with the class including personal experience in the arts. Create an atmosphere that is creative. For example, display children's art work, have them design a bulletin board, write a play, compose a sing, write a dialogue, write humor. Allow for open-endedness, ambiguity, curiosity, novelty, and problem solving.

Encourage students to take classes that will allow further development of their talent. Help students plan the appropriate course sequence and experiences that will lead to goal accomplishment. Cluster talented performing arts students in core classes and advocate for the use of alternate products and assessments that utilize their strengths.

Some of my students identified as talented through an arts performance have difficulty keeping on-task. What should I do to challenge their learning and keep them on task?

Give these children the opportunity to use their performance skills to present information from content. Focus on the students' strength in performance. Recognize the students' need for movement and realize that they learn through movement. Include in your instruction simulations, plays, skits, and learning by doing, not just listening or watching the teacher.

Resources

Bloom, B. (1985). *Developing Talent in Young People*. New York, NY: Random House.

Clark, G. & Zimmerman, E. (1998). Nurturing the Arts in Programs for Gifted and Talented Students. *Phi Delta Kappan 79*, 747-756.

Colorado Public Schools (Oct. 2004). *Not Just Fun and Games: Arts, Activities Help Students Learn*. Denver, Colorado: Denver Post and Rocky Mountain News (October 8, 2004).

Haroutounian, J. Talent Identification and Development in the Arts: An Artistic/Educational Dialogue. *Roeper Review, Vol. 18, (2),* December 1995.

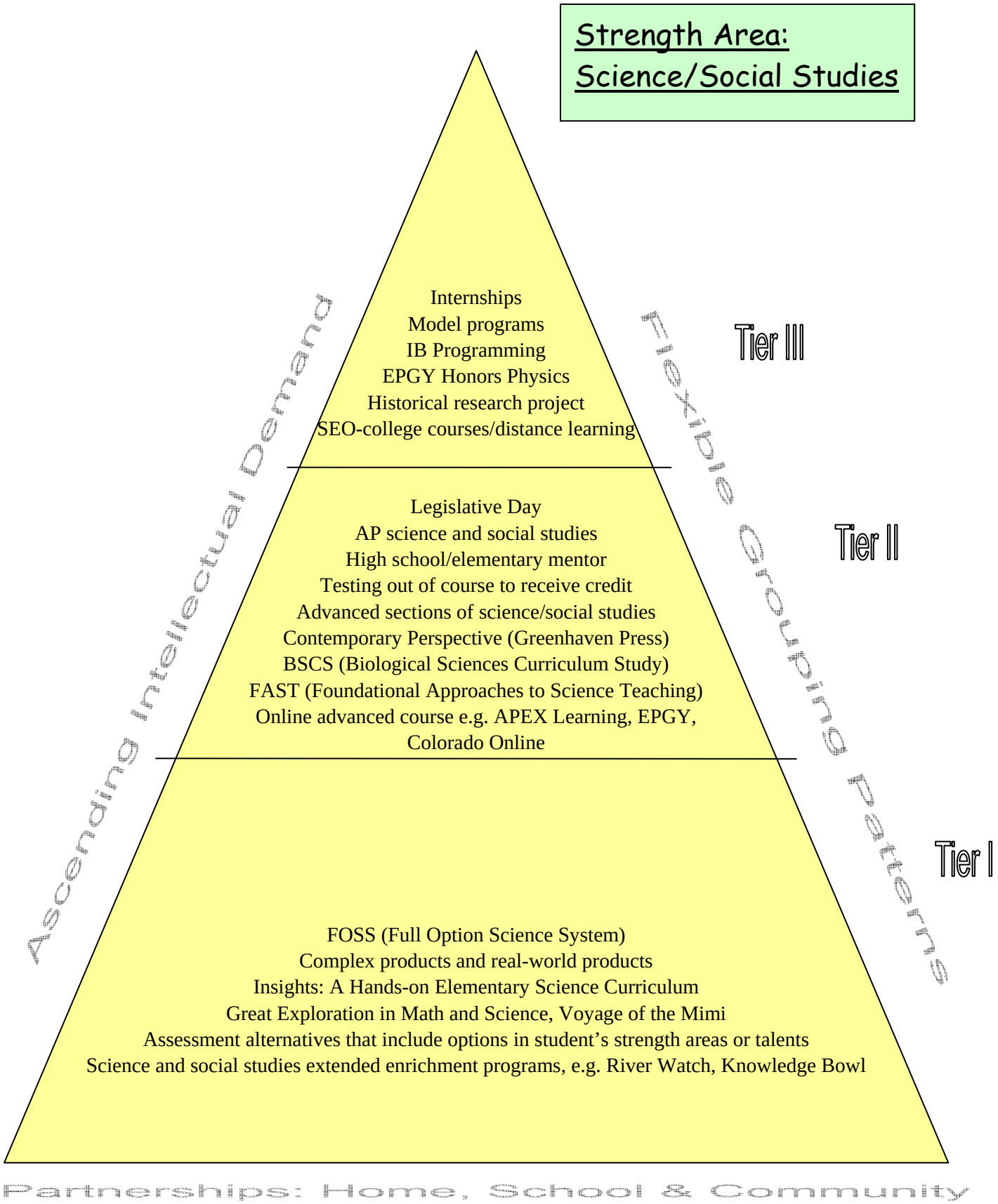
Jensen, E. (2001). *Arts with the Brain in Mind.* Alexandria, Virginia: Association for Supervision and Curriculum Development.

Johnson, K. *Writing with Authors.* Waco, TX: Prufrock Press.

Lobser, M. & Tipton, D. (2000*). Over the Edge Improv: Innovative Ideas for Creative Problem-solving Group:* mlobser@hotmail.com

Moore, R. Ed. (1995). *Aesthetics for Young People*. Reston, Virginia: National Art Education Association.

Museums have arts resource centers that will provide a list of names of artists, musicians, arts organizations, and other outlets for further instruction in the arts.


Strength Area:
Science/Social Studies
Internships
Model programs
IB Programming
EPGY Honors Physics
Historical research project
SEO-college courses/distance learning
Tier III
Legislative Day
AP science and social studies
High school/elementary mentor
Testing out of course to receive credit
Advanced sections of science/social studies
Contemporary Perspective (Greenhaven Press)
BSCS (Biological Sciences Curriculum Study)
FAST (Foundational Approaches to Science Teaching)
Online advanced course e.g. APEX Learning, EPGY,
Colorado Online
Tier II
FOSS (Full Option Science System)
Complex products and real-world products
Insights: A Hands-on Elementary Science Curriculum
Great Exploration in Math and Science, Voyage of the Mimi
Assessment alternatives that include options in student's strength areas or talents
Science and social studies extended enrichment programs, e.g. River Watch, Knowledge Bowl
Tier I
Ascending Intellectual Demand
Flexible Grouping Patterns
Partnerships: Home, School & Community

Frequently Asked Questions

According to Gallagher, social studies is one of the least understood topics. How can gifted children be introduced to this topic effectively?

Students can be introduced to the topic by beginning with the social studies standards and building a continuum of activities using higher order thinking skills, complexity, and pacing. To keep abreast of our changing world, use the internet, the websites on the Resources list, as well as speakers, experts, newspapers, and magazines for up-to-date resources and use the textbook as a reference. Use problem-based learning with instructional differentiation of content, process, product, and environment with broad based issues and themes to extend the study. Have the opportunity for students to complete an independent study of choice and share it with an authentic audience.

How do we structure a program for gifted students whose area of strength is science?

Begin with the science standards and develop parallel activities for gifted students that include inquiry, higher order thinking skills, creative problem solving, research skills, and experimenting, as well as guest speakers and experts, problem-based learning and real-world issues in science. By grouping the high ability students in science, there is opportunity for students to interact with others with similar interests and to talk with students at the advanced level of understanding about science concepts, ideas, or discovery.

Resources

Abby's Resource Page for Social Studies Teachers: www.alltel.net/abbtsresources

AIMS Education Foundation, Fresno, CA: www.aimsedu.org

American Memory: Historical Collections for the National Digital Library: www.memory.loc.gov

Edmund Scientific Sells Kits for Beginning Experimenters. Edmund Scientific, 101 E. Gloucester Pike, Barrington, NJ.

education@nationalgeographic.com

www.nationalgeographic.com

Education Program for Gifted Youth (EPGY). Stanford University: www.epgy.stanford.edu

Gardner, R. Science Project Ideas Series. Berkeley Heights, NJ: Enslow Publishers, Inc.: www.enslow.com

Hot Pro/Con Issues Series. Berkeley Heights, NJ: Enslow Publishers, Inc.: www.enslow.com

Invent America! United States Patent Model Foundation; 703-684-1836.

John-Steiner, V. (1985). *Notebooks of the Mind: Explorations of Thinking*. New York: Harper and Row.

Kinetic City: www.kineticcity.com

Mad Scientist Network: www.madsci.org

National Science Olympiad (NSO): www.soinc.org

NewsCurrents Online: www.newscurrents.com

Opposing Viewpoints Series. Chicago, IL: Greenhaven Press: www.galegroup.com/greenhaven

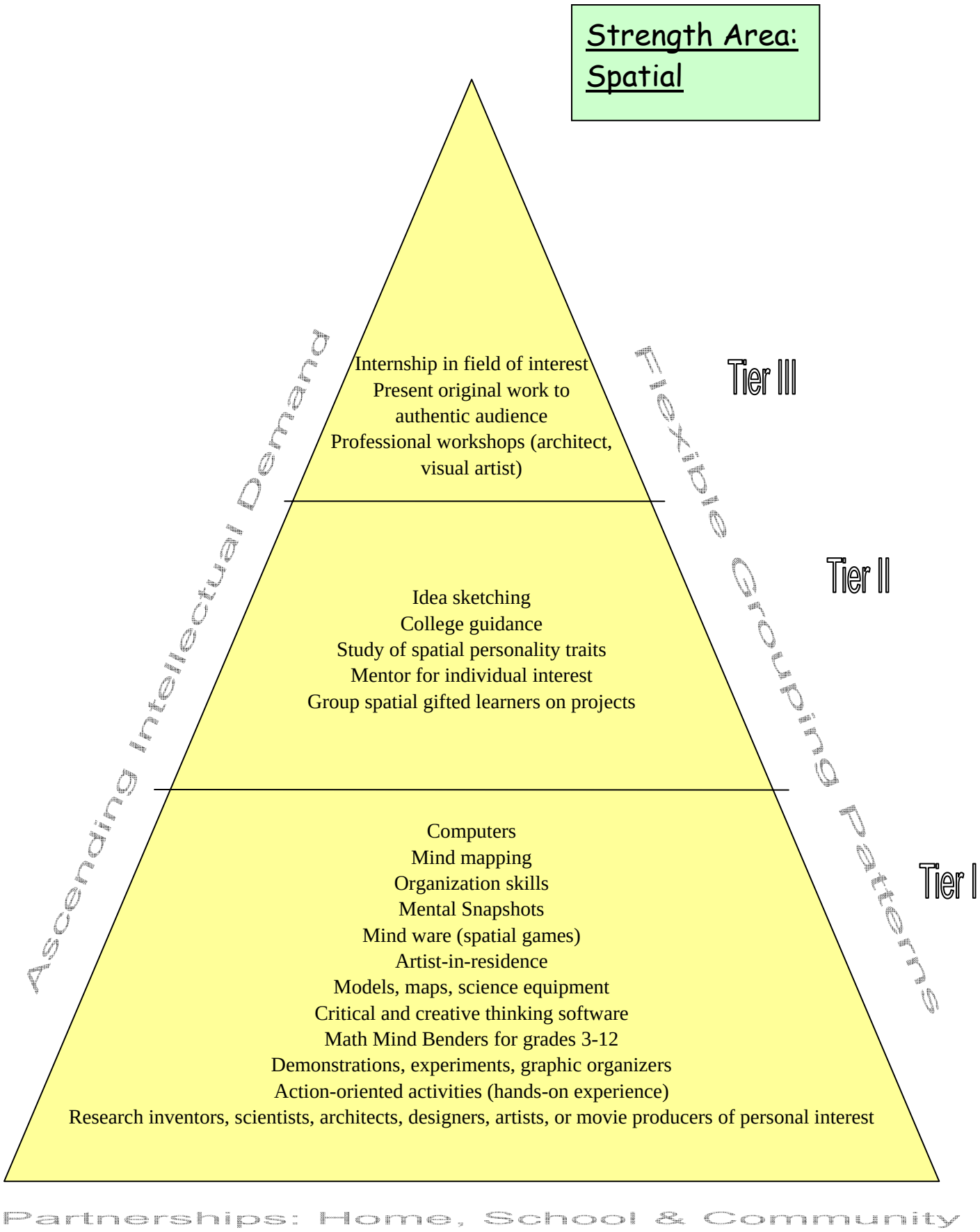
Problem-Based Science Learning for K-8 Curriculum Units. Dubuque, IA: Kendall/Hunt Publishing Company: www.sandlotsscience.com

Social Studies School Service, Culver City, CA: www.socialstudies.com

SpaceKids: Space Science for Kids: www.spacekids.com

Virtual School for the Gifted: www.vsg.edu.au

Advanced by Design
REACH-Out and Nurture


Strength Area: Spatial
Internship in field of interest
Present original work to authentic audience
Professional workshops (architect, visual artist)
Tier III
Idea sketching
College guidance
Study of spatial personality traits
Mentor for individual interest
Group spatial gifted learners on projects
Tier II
Computers
Mind mapping
Organization skills
Mental Snapshots
Mind ware (spatial games)
Artist-in-residence
Models, maps, science equipment
Critical and creative thinking software
Math Mind Benders for grades 3-12
Demonstrations, experiments, graphic organizers
Action-oriented activities (hands-on experience)
Research inventors, scientists, architects, designers, artists, or movie producers of personal interest
Tier I
Ascending Intellectual Demand
Flexible Grouping Patterns
Partnerships: Home, School & Community

Frequently Asked Questions

Are the spatially gifted at risk?

In a study of over 1,000 spatially gifted high school seniors, Gohm, Humphreys, and Yao reported that they were "disenchanted with education" (1998, p. 528). They further reported that this group received less college guidance from school counselors, were less likely to go to college, and had lower career aspirations than equally intelligent students who excelled in mathematics.

Spatial visualization, in addition to math and verbal skills, is an important ability for becoming an engineer, physical scientist, or artist. Industry and the military recognize the predictive importance of spatial ability, and this is slowly being recognized in the academic environment. Some teachers already incorporate overhead projectors, computers demonstration, hands-on experiences, construction projects, and other methods in the classroom. See www.ncsu.edu/effective_teaching.

What should I see happening for my spatial gifted child in the classroom?

The use of visualization techniques and teaching to the strength of your child should be easily observed. The teacher should show your child what to do, not just tell him what to do. Your child should be able to tell you the goal of instruction. Learning should include creative imagination and the use of discovery techniques. There should be little emphasis on drill, repetition, and rote memorization for your child. Timed tests should rarely be used. Requirements to show their work may be difficult for spatial children. Your child should be allowed to construct, draw, or otherwise visually represent what he has learned as a substitute for some written assignments. Use of computers and the keyboard is a must. Hands-on experiences should be a part of every lesson.

Resources

ABCs of the Writing Process (graphic organizers):
www.angelfire.com/wi/writingprocess/spedificgos.html

Concept Mapping:
www.uwp.ed.academic/stec/MBASC/Concept_Mapping/concept.mappying.faq.html

Critical & Creative Thinking; 1-800-458-4849.

Dixon, J. *The Spatial Child*. (1983). Springfield, IL: Charles C. Thomas.

Gardner, H. (1999). *Intelligence Reframed: Multiple Intelligences for the 21st Century*. New York: Basic Books.

Hands-On Equations: www.borenson.com

Inspiration Software: www.inspiration.com

Mindware: www.mindwareonline.com

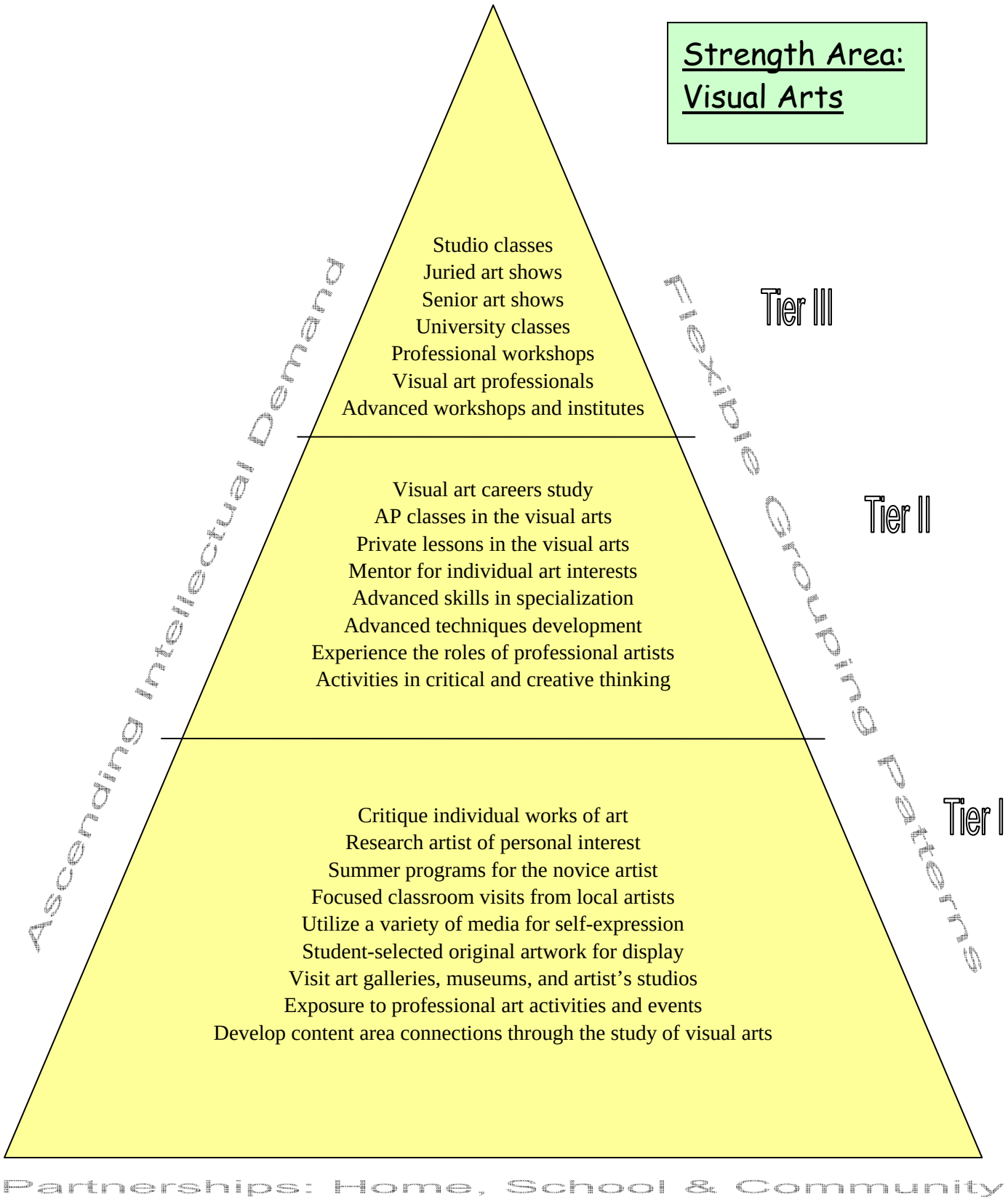
Mind Benders: www.prufrock.com

Silverman, L. (2002). *Upside-Down Brilliance.* Denver, CO: DeLeon Publishing.

Targin & Walker. (1996). *Creating Success in the Classroom: Visual Organizers and How to Use Them.* Teacher Ideas Press: www.lu.com/tips/

Teaching Company: www.teachco.com

Zephyr Press: www.sephypress.com


Strength Area:
Visual Arts
Studio classes
Juried art shows
Senior art shows
University classes
Professional workshops
Visual art professionals
Advanced workshops and institutes
Tier III
Visual art careers study
AP classes in the visual arts
Private lessons in the visual arts
Mentor for individual art interests
Advanced skills in specialization
Advanced techniques development
Experience the roles of professional artists
Activities in critical and creative thinking
Tier II
Critique individual works of art
Research artist of personal interest
Summer programs for the novice artist
Focused classroom visits from local artists
Utilize a variety of media for self-expression
Student-selected original artwork for display
Visit art galleries, museums, and artist's studios
Exposure to professional art activities and events
Develop content area connections through the study of visual arts
Tier I
Ascending Intellectual Demand
Flexible Grouping Patterns
Partnerships: Home, School & Community

Frequently Asked Questions

What can I provide for a student who is talented in the visual arts in my school with limited resources?

Recognition and encouragement of talent is important. Seek out community support, such as arts club or a mentor for the student. Look for individuals who might be willing to volunteer time working with students.

In the regular classroom the talented visual artist would many times prefer to draw than to complete the work in other subjects. What can be done to help this child complete his work in the other content areas?

By integrating art into other content areas and building on the student's strength and interest in drawing, he will find other subjects of more interest. For example, for a language arts lesson in research, have the student study about an artist of choice, learn about his life, and write and illustrate an essay. When possible give choices such as drawing, illustrations, and three-dimensional work in presenting assignments.

Resources

Art and Artists Series, Teacher Created Materials: www.teachercreated.com

Clark, G. & Zimmerman, E. (2004). *Teaching Talented Art Students: Principles and Practices*. New York: Teacher's College Press.

Clark, G. & Zimmerman, E. (1984). *Educating Artistically Talented Students*. Syracuse, NY: Syracuse University Press.

Cumming, R. (1998). *Annotated Guides to Great Artists: The Lives of 50 Painters Explored through their Work*. New York, NY: DK Publishing.

Department of Education Resources, Extensions Resource, National Gallery of Arts Washington, DC 20565. Request catalogue of free-loan materials.

Edwards, B. (1987). *Drawing on the Artist Within: A Guide to Innovation, Invention, Imagination and Creativity*. New York, NY: Simon and Schuster.

Edwards, B. (1999*). The New Drawing on the Right Side of the Brain: A Course in Enhancing Creativity and Artistic Confidence*. Los Angeles: Jeremy P.Tarcher.

Moody, W. (1990). *Artistic Intelligences: Implications for Education*. New York, NY: Teachers College Press.

Roukes, N (1984*). Art Synectics*. Worcester, Massachusetts Publications, Inc.

The Inquiring Eye French Impressionism Post Impressionism. Washington National Gallery of Art, Washington DC.

Component 4a: Affective Guidance

Affective guidance is the process of addressing the social, emotional, and behavioral needs of the child that go beyond academics.

Foundations and Assumptions:

A comprehensive counseling and guidance program for healthy emotional development is clearly as important as academic achievement for the gifted. Educators and researchers have identified the critical importance of emotions to the learning process and to the full development of the individual. See Appendix for *Taxonomy of Educational Objectives Affective Domain*. The early research of Leta Hollingworth (Colangelo, 1991), indicates that gifted children do have social/emotional needs meriting attention. Affective development for gifted students should address the increased incidence of perfectionism, unrealistic goals, emotional intensity, moral concerns, and the result of stress and lower achievement.

Successful programming to meet the social and emotional needs of the gifted is a continuum of academic advising, social and emotional, vocational and career services.

The National Association for Gifted Children (1995) believes that gifted children also require appropriate affective services including gifted-focused counseling interventions and career development guidance programs if they are to develop their options. The National Association for Gifted Children recommends that these services be designed to:

- *Provide orientation to gifted programming, including information about the selection process and the social, emotional, and academic implications of giftedness;*
- *Enhance relationships with others, including both those who are identified as gifted and those who are not;*
- *Assist with long-term life planning, including opportunities to deal with issues related to multi-potentiality*
- *Provide counseling that addresses the increased incidence of perfectionism, unrealistic goals, emotional intensity, moral concerns, and the resultant stress and lower achievement in the gifted population.*

Some gifted and talented children, because of heightened intellectual, social and emotional needs, may experience difficulties that require professional intervention. NAGC believes that it is imperative that those who provide services at such times have expertise in understanding the impact of giftedness on a child's development (p. 1).

Suggestions for District Leaders in Gifted Education:

1. Affective guidance essentials

- Establish and maintain positive relationships with all peers.
- Deal with sensitivity with what others say and do.
- Make career choices.
- Learn to relax and relieve tension and stress.

- Develop positive leadership skills.
- Develop tolerance.
- Develop self-efficacy.

2. Specific concerns based upon the needs of the individual student

- Providing assistance with perfectionism.
- Enhancing self-concept.
- Recognizing societal expectations.
- Gender issues.
- Getting along with siblings.
- Suicide prevention.

3. Parent involvement

- Partner with parents of gifted children, recognizing their knowledge, expertise, and contribution to their children's growth;
- Provide professional presentations, speakers, and educational opportunities on topics related to social and emotional needs;
- Develop individualized learning plans with parent and child;
- Encourage parent participation in support groups such as the SENG Model (Webb & DeVries, 1998);
- Provide preventive guidance books and materials about social and emotional needs of gifted children.

Special Considerations:

Children of Poverty: Focus on individual strengths and needs. Acknowledge different cultural expectations, values, and opportunities. See Appendix for *Support Systems*.

Gifted Boys: Recognize stereotypes about gender-specific careers and interests, as well as concerns about sensitivities as uncharacteristic of boys; positive male role models as mentors; biographical studies of eminent males; male peer counselors; strength analysis; non-traditional professions.

Gifted Girls: Recognize equal opportunities and challenges; positive female role models as mentors; females in non-traditional professions and careers; gender-based classes; assertiveness training; analysis of strengths, talents, abilities; biographical studies of eminent women. See Appendix for *Gifted Girls in the Curriculum*.

High Mobility Rates: Recognize families that move often such as migrant worker families; need year-round testing and data gathering; focus on individual needs and strengths; respond to and understand different cultural norms; study culturally eminent people.

Linguistically and Culturally Diverse Learners: Provide open-ended activities with creative application in all academic areas; development of language skills through creative ends; connect with positive role models from a variety of cultural backgrounds.

Twice-Exceptional: Teach compensatory strategies to help cope with special needs; provide role models; emphasize student successes; encourage student independence and self-worth; collaborate with exceptional children specialists; emphasize choice and flexibility.

Underachieving Gifted Learners: Assess skills and abilities; reinforce and support work habits at home and at school; connect with positive role models; correct skill deficiencies; chart progress; build self-confidence; set goals; focus on time management skills; develop effective communications and advocacy skills. See Appendix for *Serving Underachievers at School*.

Visual-Spatial Learners: Visual-spatial learners are atypical thinkers, have strong long-term memory and observation skills. They learn better from seeing rather than hearing. They think in images and usually see things as a whole. It may take a while for them to express themselves verbally because they have to translate their images and thoughts into words. Persons talented in art, science, mechanics, technology, computers, math concepts, and understanding of human relationships may be visual-spatial. These talent areas require strong visualization skills (Silverman, 2002). See Appendix for *Instructional Strategies for Visual-spatial Learners.*

See Appendix for:

Taxonomy of Educational Objectives: Affective Domain
Common Issues for Discussion

Component 4b: Counseling for Career and College Planning

Counseling for career and college planning provides early assistance to students in outlining their educational path. To ensure proper course sequence, all parties need to be aware of the student's goal, e.g. college entrance requirements at some universities may drive high school, middle school, and even late elementary class selection.

Foundations and Assumptions:

The purpose of career and college planning for gifted adolescents is to provide them with information and guidance that is often lacking because of the misconception that able students can make these decisions on their own (Sanborn, 1979). Multipotentiality, sensitivity to competing expectations, uneven development, dissonance, sense of urgency, idiosyncratic learning styles, and a potential long-term investment in higher education add to the complex dilemmas encountered by most students. Career and college planning is an organized, long-term commitment that should begin at home and extend throughout the school years. When done well, such planning helps gifted adolescents realize fully their individual talents and the impact these talents may have in shaping the course of our society.

Suggestions for District Leaders in Gifted Education and Counseling

Career and College Planning

- Self awareness.
- Decision-making.
- Goal setting.
- Time management.
- Study skills.

- Early career and college exploration.
- Mentorship.
- Job shadowing.
- 4- to 6-year academic master plan.
- Regional talent searches.
- SAT/ACT assessment programs.

Parent Involvement

- Provide college guides, multimedia resources and videotapes about colleges and universities to parents and students.
- Provide support groups for parents of gifted students who are preparing for college.
- Schedule parent, student, teacher and counselor conference on career and college planning.
- Schedule campus visitations with admission personnel, faculty, and students to provide information about academic and campus life.

Special Considerations

Rural and Outlying Towns: Understand students that have limited access to a broad range of career experiences**;** recognize that a student may be a first-generation college student.

Gifted Boys and Girls: Eliminate stereotypical expectations related to post-secondary education and careers; emphasize rigorous academic orientation for girls as well as boys in math, science, and technology; maintain high career aspirations regardless of gender.

Linguistically and Culturally Diverse Learners: Expose students to high-achieving ethnic role models through support or association; recognize the necessity to overcome cultural norms and societal expectations that limit achieving one's full potential.

Frequently Asked Questions:

Why can too much praise for accomplishments turn into negative self-concept?

The gifted student is usually aware of his/her own abilities and recognizes when the teacher or parent tells him/her continually that everything he/she achieves is wonderful when indeed the child knows when he/she has not met his/her goal. Recognition with praise must be authentic.

Why is it important for the gifted to interact with others like themselves?

There are several reasons children who are gifted benefit from interacting with others like themselves. The first is it gives gifted children the opportunity to be with their intellectual peers and to be part of a group where they are accepted for their gifts and secondly, a place where they feel safe in asking questions and working with others who may share interests and level of understanding. Gifted students can learn and be stimulated by their intellectual peers. When students are grouped together the teacher is able to challenge the students as a group at a higher level of thinking.

Is it all right for a gifted child to be a loner?

Gifted children commonly seek times to be alone. Maslow gives the need for times of isolation as one of the characteristics of self-actualizing people. If, however, the child is seeking isolation as an escape from teasing, criticism, or unfair treatment, that can be a problem. Gifted children need to be taught skills of communication with others and need help in understanding how to be accepting toward and accepted by others. Choosing to be alone is different from being alone because of being rejected.

Resources

Affective Guidance

Adderholt, M. (1989). *Perfectionism: What's Bad about Being Too Good*? Minneapolis, MN: Free Spirit Publishing, Inc.

Amabile, T. (1992). *Growing Up Creative: Nurturing a Lifetime of Creativity*. Buffalo, NY: The Creative Education Foundation Press.

American Mensa, Arlington, TX: www.us.mensa.org

Betts, G. & Kercher, J. (1999). *Autonomous Learner Model: Optimizing Ability*. Greeley, CO: ALPS.

Canfield, J. & Wells, H. (1997). *100 Ways to Enhance Self-concept in the Classroom.* Needham Heights, MA: Allyn and Bacon.

Colangelo, N. & Davis, G. (Eds.). (1991). *Handbook of Gifted Education*. Needham Heights, MA: Allyn & Bacon.

Colorado Federation of Families for Children's Mental Health: www.coloradofederation.org

Davidson Institute for Talent Development: www.davidsoninstitute.org

Delisle, J. & Galbraith, J. (2002). *When Gifted Kids Don't Have All the Answers: How to Meet Their Social and Emotional Needs*. Minneapolis, MN: Free Spirit Publishing, Inc.

Galbraith, J. & Delisle, J. (1996) *Gifted Kids' Survival Guide: A Teen Handbook*. Minneapolis, MN: Free Spirit Publishing, Inc.

Galbraith, J. (1984). *Gifted Kids' Survival Guide (Ages 10 and Under*). Minneapolis, MN: Free Spirit Publishing Inc.

Hebert, T.P. (1995). Using Biography to Counsel Gifted Young Men. *Journal of Secondary Gifted Education 6*(3), 208-16.

Kerr, B. (1995). *Smart Girls.* (Revised edition). Scottsdale, AZ: Great Potential Press, Inc.

Kerr, B. & Cohen, S. (2001). *Smart Boys*. Scottsdale, AZ: Great Potential Press, Inc.

National Association for Gifted Children (1995). *Addressing the Affective Needs of Gifted Children Position Paper*. Washington, DC: National Association for Gifted Children.

National Mental Health Consumers' Self-Help Clearinghouse: www.mhselfhelp.org

Neihart, M. et. al. (2004). *The Social and Emotional Development of Gifted Children*. Washington DC: NAGC Service Publication.

Payne, R. (1995*). Poverty: A Framework for Understanding and Working with Students and Adults from Poverty*. Baytown, TX: RFT Publishing.

Sanborn, M. (1979). Differential Counseling Needs of the Gifted and Talented. Colangelo, N. & Zaffran, R. (Eds.). *New Voices in Counseling the Gifted.* Dubuque, IA: Kendall-Hunt, pp. 154-165.

Silverman, L. (1986). Parenting Young Gifted Children. Whitemore, J.R. (Ed), *Intellectual Giftedness in your Children*. New York: Haworth Press.

Silverman, L. (1993). *Counseling the Gifted and Talented*. Denver, CO: Love Pub.

Silverman, L. (2002). *Upside-down Brilliance: The Visual-Spatial Learner*. Denver, CO: DeLeon Publishing.

Smutny, J. (1999). Gifted Girls. *Understanding Our Gifted, 11*(2), 9-13. Printed copy: www.davidsoninstitute.org

Webb, J. *Parenting Successful Children.* VHS or DVD 52 minutes (2000). Scottsdale, AZ: Great Potential Press, Inc.

Webb, J. & DeVries, A. (1998*). Gifted Parent Groups: The SENG Model*. Scottsdale, AZ: Great Potential Press, Inc.

Webb, J., Meckstroth, E. & Tolan, S. (New Edition Spring 2005). *Guiding the Gifted Child: A Practical Source for Parents and Teachers*. Scottsdale, AZ: Great Potential Press.

Webb, J., Amend, E., Webb, N., Goerss, J., Beljan, P. & Olenchak, R. (2005). *Misdiagnosis and Dual Diagnoses of Gifted Children and Adults*. Scottsdale, AZ: Great Potential Press.

Whitmore, J. (1980). *Giftedness, Conflict, and Underachievement*. Boston, MA: Allyn and Bacon.

Counseling for Career and College Planning

Berger, S. (2001). *College Planning for Gifted Students*. Waco, TX: Prufrock Press Inc.

Elkind, D. (1984). *All Grown Up with No Place to Go*. Reading, MA: Addison-Wesley.

National Center for College Selection (NCCS): www.cccnews.net/college/guide/

Silber, L. (1999). *Career Management for the Creative Person*. NY: Three Rivers Press.

Wright, A. & Olszewski-Kubilius, P. (1993). *Helping Gifted Children and Their Families Prepare for College; A Handbook Designed to Assist Economically Disadvantaged and First-generation College Attendees*. Evanston, IL: Center for Talent Development.

Wright, B. (2001). *Parents' Perspective of Early College Entrance for Profoundly Gifted Children, Part I and II*. Davidson Institute for Talent Development. Printed copy: www.hoagiesgifted.org/highly-gifted.htm

Appendix:
Advanced Learning Plans

Examples from Colorado

Advanced by Design
REACH-Out and Nurture

Adams County School District 50
Gifted and Talented Program
Personalized Learning Plan

Student:

G/T Programming Recommendations (Based on student strengths and interests)	**Content/Specific Activity**	**Evaluation of Success**
WITHIN-CLASS INSTRUCTIONAL DIFFERENTIATION OR CURRICULAR ADAPTATIONS ☐ Curriculum compacting ☐ Alternative assignments, products, pacing, materials, content ☐ Contract learning ☐ Flexible grouping ☐ Individualized planning and/or instruction through IEP, PLP GROUPING FOR INSTRUCTION AND/OR ACTIVITIES ☐ Ability or achievement grouping ☐ Cluster grouping ☐ Cross-age, multi-age grouping ACCELERATION IN STUDENT PLACEMENT ☐ Grade-skipping (radical acceleration) ☐ Content acceleration ENRICHMENT PROGRAMMING ☐ Within-class enrichment (individual or small group) ☐ Whole-class enrichment ☐ Before school, after school, Saturday enrichment ☐ Field trips and off-campus enrichment ☐ Fairs, festivals, performances ☐ Academic League: Honor Choir, Destination ImagiNation National Spelling Bee, National Geographic Bee Math Counts, Other _____ ☐ INDEPENDENT STUDIES ☐ AFFECTIVE NEEDS PROGRAMMING ☐ OTHER:		

SIGNATURES:

_____ Student	_____ School	_____ Review Date
_____ G/T Facilitator	_____ G/T Classroom Teacher	_____ Parent/Guardian

BVSD Talented and Gifted Personalized Learning Plan for K-8 (K-12)

The Personalized Learning Plan is implemented for the purpose of providing support for the student's gifted education needs. The PLP is designed for identified TAG students based on assessments, observations, and classroom performance. In developing and implementing the student's PLP, the TAG student, parent/guardian, teachers, TAG Ed Advisor, and school support staff each have a role in creating success.

Student Student ID #

School Grade Level

Date

Learning objective(s)/goal(s) for current school year, preferably collaborated upon by student, parent, and teacher. Goals may be academic, social/emotional, or personal in nature. Write up to three goals.

1.
2.
3.

Conference date #1 _____

Persons present at conferernce #1:_____

Degree of completion (during the initial conference, click on the button that indicates degree of goal achievement):

	Goal #1	Goal #2	Goal #3
1. Beginning Progress	_____	_____	_____
2. Adequate Progress	_____	_____	_____
3. Strong Progress	_____	_____	_____
4. Completed	_____	_____	_____

Comments

Parent or student has signed off as having received copy of PLP Yes _____ No _____
Parent or Student Signature: _____

Conference date #2 _____
Persons present at conferernce #2_____

Degree of completion (during the final conference, click on one that indicates commensurate growth and goal achievement):

	Goal #1	Goal #2	Goal #3
1. Beginning Progress	_____	_____	_____
2. Adequate Progress	_____	_____	_____
3. Strong Progress	_____	_____	_____
4. Completed	_____	_____	_____

Comments

Parent or student has signed off as having received copy of PLP Yes _____ No _____
Parent or Student Signature: _____

	LA	MATH	Other Subjects: Please specify	Additional Comments
TAG identified area(s) of strength/need as determined by the school:				
Strategies in place for this student for meeting her/his educational needs:				
Delivery Models: Special class or seminar				
School for gifted children				
Magnet program or focus program (within a school)				
Pull-out class				
Other delivery model (Please specify)				
Advanced curriculum-based strategies:				
Advanced, IB, or AP class in core curriculum area				
Advanced elective class				
Advanced on-line or correspondence class				
Other (please specify)				
Within-class instructional differentiation or accommodations:				
Curriculum Compacting				
Modified content/pace/materials/products				
Contract for different work				
Twice exceptional accommodations for higher level participation (For gifted students with disabilities)				
Pre-testing followed by different work				
Other (please specify)				

	LA	MATH	Other Subjects: Please specify	Additional Comments
Grouping practices:				
Higher-ability grouping				
Clustering of several TAG students together for advanced work				
Grouping by interest for projects, study etc.				
Cross-age/grade grouping for instruction				
Other (please specify)				
Acceleration:				
Grade skipping into current grade				
Subject acceleration				
AP before 11th grade				
Enrolled in college class				
Post-secondary Option				
Telescoping two grades into one				
Telescoping three grades into two				
Other (please specify)				

	LA	MATH	Other Subjects: Please specify	Additional Comments:
Independent study and mentorship:				
Independent study class or contract				
In-depth study in core curriculum				
Individual project at higher level				
Mentorship, internship, or apprenticeship				
In-depth study outside of school				
Other (please specify)				
Testing:				
AP, IB exam				
Mastery level testing				
Norm-referenced test				
Criterion-referenced test				
Off-level testing				
Pre- and post-testing				
Teacher designed test				
Other (please specify)				
Subjective/interpretive assessment:				
Case study **Details may be added at end of section**				
Anecdotal records **Details may be added at end of section**				
Parent-teacher-student conference **Details may be added at end of section**				

	LA	MATH	Other Subjects: Please specify	Additional Comments:
Interview for demonstration of mastery **Details may be added at end of section**				
Learning logs/journals **Details may be added at end of section**				
Narrative of learning **Details may be added at end of section**				
Formal or informal staffing or study conference **Details may be added at end of section**				
Other (please specify) **Add details from above here**				
Student is not receiving different programming **Explain here**				

Other strategies in place for this student for meeting her/his educational needs:	Information discussed with student and/or parent	Student participated in this activity, strategy, assessment, or evaluation
Affective programming:		
Guidance/counseling participation **Details may be added at end of section**		
Advanced college planning **Details may be added at end of section**		
Career planning **Details may be added at end of section**		
Other (please specify) **Add details from above here**		

Other strategies in place for this student for meeting her/his educational needs:	Information discussed with student and/or parent	Student participated in this activity, strategy, assessment, or evaluation
Enrichment:		
Classroom in-depth enrichment **Specify**		
Before school, after school, or weekend activity **Specify**		
Field trip or off-site for advanced learning, or summer enrichment program **Specify**		
College sponsored programs (SEP, Univ. for Youth, Talent Search, etc.) **Specify**		
Extra-curricular programs **Specify**		
Community sponsored activities **Specify**		
Academic competitions (Quiz Bowl, Science Fair, Geography Bee, Spelling Bee) **Specify**		
Other competitions **Specify**		
Imported enrichment programs (DI, History Day, Junior Great Books, Math Counts, Knowledge Masters, etc.) **Specify**		
Other **Specify**		

Other assessment/accountability used for this student:		
Inventories, rating scales, matrices - check all that apply		
Check lists **Specify**		
Inventories (including Kingore) **Specify**		
Rating scales **Specify**		
Questionnaires **Specify**		
Surveys/appraisals **Specify**		
Other **Specify**		
Reflective evaluation – check all that apply		
Self-evaluation **Specify**		
Peer evaluation **Specify**		
Parent evaluation **Specify**		
Other **Specify**		

Douglas County Discovery Program
DEVELOPMENTAL LEARNING PLAN

This learning plan is developed for _____ in _____ grade _____ track at
student's name
_____ School during the _____ school year.

Student's date of birth _____ Student's age _____ Home telephone _____

The purpose of the learning plan is to address the student's strengths and areas of concern.

Academic Strengths

Academic Areas of Concern

Affective Needs and/or Goals

Organizational Needs and/or Goals

Developmental Learning Plan for _____

Objective What will the student be able to do as a result of this plan?	Strategies and person(s) responsible What are the planned activities that will lead to achievement of the objective? Who is responsible for implementing them?	**Resources** What materials/resources will be used to implement the strategies?	**Evaluation** What will be the evidence that the student has achieved the objectives?	**Review Date(s)** When will the plan be reviewed?
Area of strength goal: Area of concern goal: Affective goal: Organizational goal:				

I give permission for my child to receive the above mentioned service and agree to support the implementation of this plan.

_____
parent's signature date

I agree to supervise and support the implementation of this plan.

_____
teacher's signature date

The following people participated in the development of this plan:

_____ teacher
_____ student
_____ parents
_____ BRT
_____ principal
_____ assistant principal

_____ other: _____

APPENDIX:
Differentiated Instruction for Gifted Learners

Advanced by Design
REACH-Out and Nurture

Acceleration Table

Acceleration is the movement of a student, by pace or place, which matches learning opportunities with a student's needs and strengths.

Subject-based Acceleration

Component	Definition	Guiding Principles	Practitioner Tips	Parental Involvement	Special Consideration	Resources	Research
Curriculum Compacting	Streamlining or shortening the standard curriculum by pre-assessing to determine prior knowledge/ mastery, and then replacing what the student already knows with appropriate learning experiences.	Allows student to demonstrate prior learning or knowledge. Allows student to "buy time" to pursue personal interests. Is easily accommodated in a mixed-ability classroom.	Must begin with pre-assessment. Organization is important – contracts, etc., should be in place. Student earns grade they "tested out" with.	Letters to parents explaining the compacting process are necessary. Parents can also sign off on learning contract.	Some pre-teaching is necessary to catch kids who will "get it" right away. This is a strategy for which all students in a classroom can qualify. Enrichment experiences should not be remediation.	*It's About Time* – In-service manual for compacting. *Teaching Gifted Kids in the Regular Classroom*, Susan Winebrenner	*A Nation Deceived, Vol. 1 & 2*
Single Subject Acceleration	The delivery of the curriculum by either physically moving the child into higher grade level within the same building for instruction, or by having him/her work with the higher grade level curriculum in his/her own age-based classroom.	Students who are performing above their age-level peers require curricular experiences that also are beyond that of their age-level peers.	Flexibility. Integrated units in school make building in depth and complexity easier. Allow students choices. Authentic learning experiences enrich curriculum for all students. Think out of the box in regard to curricular experiences. It could include in-school tutors, online learning, service learning, etc.	Parents must be involved in the decision to accelerate a child whether it be by pace or place – content of curriculum may be an issue for some families (teen issues in novel, etc.).	Not changing the student's entire grade level placement, but they can do the work of that grade level. Controversy surrounding grouping can arise with this component. Social/emotional maturity may not match cognitive maturity.	College of William and Mary – curricular units for Gifted Learners Advanced Placement - The College Board	*A Nation Deceived, Vol. 1 & 2*

Subject-based Acceleration

Component	Definition	Guiding Principles	Practitioner Tips	Parental Involvement	Special Consideration	Resources	Research
Concurrent Enrollment	Attending classes in area of strength in more than one building level in the same school year (middle school student attending high school classes for part of the day; high school student attending college level classes for part of the day).	Students who are performing above their age-level peers require curricular experiences that also are beyond that of their age-level peers.	Flexibility. Assigning an in-class mentor to accelerated student may help ease transition.	Parents must be involved in this decision, especially if transportation between buildings is an issue. They, too, will need to be flexible. Often this strategy will require that something is sacrificed.	Students may be missing all or part of other academic/ exploratory periods given differing building/school schedules.	Local universities and colleges admissions and programs.	*A Nation Deceived, Vol. 1 & 2*
Rocky Mountain Talent Search	Students qualify to take the SAT or ACT as middle school students and can qualify for advanced level courses at a number of universities throughout the country.	Students often "hit the ceiling" with traditional achievement tests. These give a more accurate indication of their achievement level. Students can practice taking these "high stakes" tests without any negative consequences (it does not go on their academic record until 9th grade).	This is really something done outside of the academic day. Practitioners need to be aware of this opportunity to inform families of this option.	Parents must give permission for their child to take the SAT or ACT. A small fee accompanies taking the test.	The PLUS academic abilities test is given to 5th and 6th graders. Enrichment programs are extended stay (often two weeks+) during the summer months.	Johns Hopkins Center for Talented Youth University of Denver – Rocky Mountain Talent Search	*A Nation Deceived, Vol. 1 & 2*

Subject-based Acceleration

Component	Definition	Guiding Principles	Practitioner Tips	Parental Involvement	Special Consideration	Resources	Research
Independent Study	Courses taken during, within, or outside of regular school/academic time for either personal interest and/or for credit.	Students who are self-motivated will be able to pursue own interests/ required academic curriculum at a pace which suits their needs.	Learning contracts are essential for this – either drawn up by the instructor or by the student. May need to assist student in gathering resources. Mentors can play a key role in independent study opportunities.	Parents need to be aware of the parameters of the project and continue to communicate with the instructor in terms of the amount of time spent outside of the classroom on the project.	Requires a significant degree of self-motivation on the part of the student. There needs to be teacher/student contact on a regular basis – the student should not be left to "fend for him/herself."	Learning contracts Study Guides	*A Nation Deceived, Vol. 1 & 2*
Correspondence/ Distance Learning	Courses taken during, within, or outside of regular school/academic time for either personal interest and/or for credit.	Students will be able to pursue curriculum/ coursework not traditionally available to them at their current school/educational setting.	This can be an in- or out-of-school option. Tutors may be helpful if a teacher is not assigned to the course.	May need to find a tutor for student if an out-of-school experience. Parents may need to seek out options that are best fit for student.	Inquire about the ability to apply credits to academic transcript.	EPGY – Stanford University (online courses for K-12 gifted learners) Apex Learning (online courses, including AP)	*A Nation Deceived, Vol. 1 & 2*

Subject-based Acceleration

Component	Definition	Guiding Principles	Practitioner Tips	Parental Involvement	Special Consideration	Resources	Research
Advanced Placement/ International Baccalaureate	College-level coursework offered usually at the high school as a part of the curricular offerings. AP allows students the opportunity to fulfill some college credit with certain score on final exam.	Students follow college-level curriculum in these in-school programs (commonly found in high schools).	IB diploma requires full-time IB Program enrollment; AP courses can be taken individually.	Participation in college planning. Support in student's time management. Support in community service requirements. Facilitators in seeking community resource to support talents.	IB courses not open to students until their Junior year in high school, although many schools offer Pre-IB courses. IBO also has Primary Years and Middle Years program, which are comprehensive curriculums adopted by schools. AP courses can be taken online.	The College Board Apex Learning (online courses, including AP) International Baccalaureate Organization School/College Counselors Colorado Online Learning	*A Nation Deceived, Vol. 1 & 2*
College-in–the-Schools Programs	College courses provided on the high school site by a local university.	Students have access to college courses at their local high school and receive college credit for successful coursework.	Teacher can be either a college faculty member or a high school teacher trained to offer this course.	Participation in college planning. Support in student's time management.	Inquire about the ability to apply credits to academic transcript.	Project Advance Program Syracuse Advance College Project Indiana University, Bloomington	*A Nation Deceived, Vol. 1 & 2*

Subject-based Acceleration

Component	Definition	Guiding Principles	Practitioner Tips	Parental Involvement	Special Consideration	Resources	Research
Mentorships	Connecting a high school student who has exhausted all high school curriculum in his/her talent area with a community or university "expert" who oversees the student's studies and learning over the course of a year.	Usually outside of school time.	Working with a mentor on a project of interest can help to develop social skills.	Transportation to meet with mentor.	Scheduling a time to meet with the mentor on a weekly basis.	Research Science Institute McLean Virginia Westinghouse Science Talent Search	*A Nation Deceived, Vol. 1 & 2*
Post-Secondary Options	Allowing a high school student to spend part of his/her school day taking courses at a local college or university for both high school and college credit.	Students attend courses at colleges and universities	Courses are on college campus with college students.	Participation in college planning	Inquire about student participating in after school activities since the last hour of the day he is not on the high school campus	College and university course catalogues List of colleges and universities that offer Post Secondary Options	*A Nation Deceived, Vol. 1 & 2*

Grade-based Acceleration

Component	Definition	Guiding Principles	Practitioner Tips	Parental Involvement	Special Consideration	Resources	Research
Grade Skipping	Promoting a learner beyond the next grade in order to skip 1 to 2 grade levels.	Motivated children who are academically advanced and who need challenging work may be candidates for grade acceleration.	Utilize good assessment tools, consult with the student, parents, and educators to ensure appropriate placement.	Parents are essential to a good decision regarding appropriateness of this option.	Child needs to be able to cope with the pressure of being younger, and must want to be accelerated.	Iowa Acceleration Scale	*A Nation Deceived, Vol. 1 & 2*
Non-graded Classes/ Multi-Age Classrooms	Placing learners of a variety of ability levels in a classroom that spans two or more grade levels.	Students work through the curriculum at a pace commensurate with their ability.	Utilize on-going assessment to ensure relevant interventions. Have an understanding of multi-age philosophy.	Parents should have an understanding of multi-age philosophy. Offer support to the classroom teacher.	Space for multi-levels of curriculum resources is needed.	Teacher Team	*A Nation Deceived, Vol. 1 & 2*
Grade Telescoping	Practice of progressing rapidly through the curriculum of several grade levels.	Motivated children who are academically advanced and who have a strong desire to complete coursework in less time may be candidates for grade telescoping.	Provide guidance for course selection, monitoring of academic achievement, and high level of teacher expertise in a content area. Career and college planning is important.	Parents are essential to a good decision regarding appropriateness of this option and for the necessary academic and emotional support.	Access to coursework.	Counselor Gifted Specialists Apex Colorado Online Learning	*A Nation Deceived, Vol. 1 & 2*
Early Entrance to Kindergarten	Practice of admitting a child to school earlier than typically allowed by the school or school district policy – this may be as little as a few weeks or as much as a year or more.	Certain students may be ready to enter into academic experiences earlier than others. Most common is early entrance to Kindergarten and College	Flexibility is key. Pair early entrance students with peer mentor to ease transition.	Parents play a huge role in this component, especially with early entrance to Kindergarten. Parents are most often the people who see the exceptionalities in their children.	Developmental readiness (mainly social and emotional) becomes a greater issue here for many people than with subject acceleration.	Iowa Acceleration Scale	*A Nation Deceived, Vol. 1 & 2*

Grade-based Acceleration

Component	Definition	Guiding Principles	Practitioner Tips	Parental Involvement	Special Consideration	Resources	Research
Early Admission to College	Practice of admitting a student to college as a full-time student without completion of a high school diploma.	Result of long-term planning matched to the student's motivation and strength area.	Establishing on-going collaboration with school counselor and college admissions is critical.	Ensure on-going collaboration with school counselor and college admissions office.	Student must be able to cope with the realities of being younger (i.e. no driver's license).	College Counselor	*A Nation Deceived, Vol. 1 & 2*

Differentiated Instruction Assessment Rubric

Classroom Practice	**Rate your implementation of the following differentiation strategies from 1 to 4**				**How often do you use this strategy?**		
	1. Not Yet Ready: Not in practice, need more information concerning strategy	**2. Beginning**: Simple implementation, generally understand the strategy	**3. Proficient** Understand and implement with confidence	**4. Exemplary**: Assessment driven, advanced understanding and implementation	Rarely	Often	Regular Use
Tiered Content							
Tiered Process							
Tiered Products							
Pre-assessment							
Higher-level Questions							
Curriculum Compacting							
Flexible Grouping							
Interest Centers							
Learning Centers							
Student Produced Learning/Interest Centers							
Open-ended Tasks							
Students as Producers, Real-world Products and Projects							
Student-reflection & self-assessment							
Research and independent study							
Thinking & Inquiry							
Student access to Advanced Curriculum							

Highlights From Research: Reading for Advanced Learners	
Curriculum compacting	Reis, Burns, & Renzulli, 1992; Reis et al., 1995
Acceleration	Dooley, 1993; Durkin, 1966; Southern & Jones, 1992
Substitution of regular reading material with more advanced trade books or basal material	Durki, 1990; Van Tassel-Baska, 1996
Appropriate use of technology and the web	VanAlvermann, Moon, & Hagood, 1999; Leu, 2001
More complex assigned reading	Halsted, 1994; Hauser & Nelson, 1988
More complex assigned writing	Dean, 1998
Independent reading choices	Guthrie & Wigfield, 2000
Independent writing choices	Davis & Johns, 1989
Grouping changes (within class or across classes)	Kulik & Kulik, 1991; Rogers, 1991
Independent study	Feldhusen, 1986; Treffinger & Barton, 1988
Thematic instructional changes for talented readers (tiered reading)	Kaplan, 2001
Independent project choices based on student interests	Renzulli & Reis, 1997
Substitution of regular reading instructional strategies with other options	Baum, 1985; Dean, 1998; Dooley, 1993; Levande, 1993
Great Books or Literature Circles	Daniels, 1994
Time spent in a gifted program for reading	Vaughn, Feldhusen, &Asher, 1991; Reis, Burns, & Renzulli, 1992, 1997
Advanced questioning skills	Bloom, Englehart, Furst, Hill, & Krathwohl
Interest assessment and interest-based reading opportunities	Renzulli & Reis, 1997

Differentiation Strategies

***Differentiation: Simplified, Realistic, and Effective,* Kingore, 2004**

Curriculum compacting
Flexible grouping
Learning centers or stations
Learning centers – student produced
Open-ended tasks
Pre-assessment
Product options
Research and independent study
Students as producers
Students' self-assessments
Thinking and inquiry

Highlights From Research:
How to Differentiate Instruction in Mixed-ability Classrooms, 2nd edition, 2001

Content	Process	Product
Concept-based teaching Curriculum compacting Varied texts and resource materials Learning contracts Advanced mini-lessons Peer and adult mentors Note-taking organizers Audio/video recorders Highlighted printed materials Digests of key ideas	Journaling Creative problem solving Questioning strategies Role playing Cubing with critical thinking Comparisons Analysis Cooperative controversy Mind-mapping Labs Choice boards RAFT: Role, Audience, Format, Topic	Creating Product Assignments: Identify essential facts, understandings, and skills; identify format options; define expectations for quality in content, process, and product; determine scaffolding of skills to promote success, clearly state expectations, steps for performance; modification of the assignment (menu) based upon student readiness, interest and learning profile.

Learning Preference	Interest
Intelligence preferences: analytical, practical, creative, verbal, mathematical, spatial, kinesthetic, musical, interpersonal, intra-personal, naturalist, existential. Cultural-Influence: to understand the range of learning preferences that exist in a group. Gender-based preferences: abstract/concrete, still/moving, collaboration/competition, inductive/deductive; silent/talking. Learning environment: quiet/noise, warm/cool, still/mobile, flexible/fixed. Cognitive style: whole to part/part to whole, expressive/controlled, people-oriented/task-oriented, oral/visual, kinesthetic.	Sidebar Study: investigations conducted by students during a unit of classroom study dependent upon "what else" they desired to learn. Interest Centers: a type of learning center that allows students to explore ideas of particular interest more in-depth. Specialty Teams: collaborative and cooperative groups of students working on a specialized topic, e.g., poetry. Real-life Applications: discovery through interviews or visits with experts to determine how content from school applies in authentic jobs/careers.

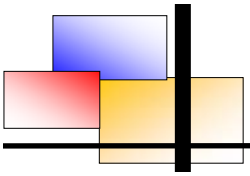
Readiness

Achievement and profile data to guide decisions
Pre-assessment
Homework data for grouping and instruction the next day
Simple to complex dependent upon the purpose
New idea (foundational) or building on a strength area/known skill (transformational)
Use of the underpinnings presented on The Equalizer to match task difficulty with the learner's readiness

Highlights From Research:

The Parallel Curriculum:
A Design to Develop High Potential and Challenge High-ability Learners, 2002

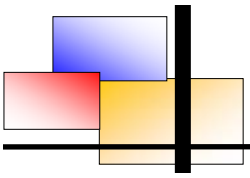
Core Curriculum	Curriculum of Connections
• The foundational curriculum that includes and extends district expectations. • Using advanced reading, resources, and research materials • Designing tasks that are more open-ended in nature • Developing rubrics for tasks/products that include expert-level indicators • Encouraging collaboration between students and adult experts • Designing work that requires continual reflection on the importance of ideas and creation of new ways	• Extends the core curriculum by interaction with the key concepts, principles, and skills in a variety of settings, times and circumstances. • Applying understandings in unfamiliar contexts • Making predictions for future direction • Looking for patterns of interaction among multiple areas of connection (economics, politics, geography…) • Seeking out and evaluating unstated assumptions in decisions • Making connections among seemingly disparate elements (music/medicine…) • Developing solutions that connect different perspectives
Curriculum of Practice	Curriculum of Identity
• Extends the core curriculum by increasing skill and confidence in a discipline as professionals would function. • Distinguishing between text learning and actual rules for authentic problems • Testing of frameworks of knowledge through field-based tasks • Comparing standards of quality used by practitioners in the field to those in the school • Engaging in persistent, prolonged written reflection about work and thinking • Comparing own approaches to problem-solving with those of experts in the field	• Extends the core curriculum by using the curriculum as a catalyst for self-awareness in the discipline; connection of the discipline to self; possibilities to future involvements. • Experiencing the discipline in order to understand self in relation to it • Think about how creativity is demonstrated in the discipline and reflect on self • Look for the beliefs, ways of working in the field, styles, etc. and compare to self interest and style • Address the role of the student in the discipline by comparing personal characteristics of the student and key people in the study



Anderson's Revised Taxonomy

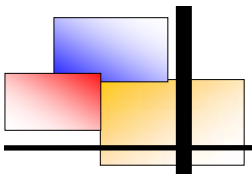
Use each of the six dimensions of thinking in conjunction with four dimensions of Knowledge: factual, conceptual, procedural, and metacognitive

REMEMBERING		
Recognize, list, identify, retrieve, name Can the student recall information	What happened after…? How many…? What is…? Find the meaning of…? Which is true or false…?	Make a list of main events. Make a time line. Make a chart showing… What characters are described? Recite a poem.
UNDERSTAND		
Interpret, exemplify, infer, classify, explain, summarize, paraphrase, compare Can the student explain the concept or ideas?	Can you write in your own words…? How would you explain…? What do you think could have happened next? Clarify why…? Illustrate the…	Illustrate what you think the main ideas may have been. Write and perform a play based on the story. Write a summary report. Prepare a flow chart to illustrate sequence of events.
APPLY		
Use, implement, execute, carry-out Can the student use the new knowledge in another familiar situation?	In what ways could the solution be used in a personal situation? How could the steps for problem solving used by the main character be used at recess?	Construct a model to demonstrate how it works. Take a collection of photographs to demonstrate a point. Write a textbook section about this topic for others.
ANALYZE		
Compare, attribute, organize, deconstruct, differentiate, point of view, bias, values, intent Can the student differentiate between parts?	How is…similar to…? Why did…change occur? What are some of the problems of…? What was the turning point? What do you see as contributing positive/negative factors to the plot?	Design a questionnaire to gather information. Make a chart of attributes. Write a biography of the person studied. Construct a graph of results. Prepare an interview for different stakeholders.
EVALUATE		
Check, critique, judge, hypothesize, testing, monitoring Can the student justify a decision or course of action?	Judge the value of…What do you think about…? Can you defend your position? How would you handle it? How effective are…?	Conduct a special interest debate. Form a panel to discuss views. Write a letter advising on changes needed and why. Write a mid-year report. Prepare a case to present your view about a course of action.
CREATE		
Design, construct, plan, produce, invent Can the student generate new products, ideas or ways of viewing things?	Can you create new and unusual uses for…? How many ways can you…? What patterns in…were detected? Can you design a…to…? If you had access to resources how would you…?	Invent a machine to… Create a new product. Design a blueprint and marketing plan. Devise a way to… Create a song for the national anthem based on today's news. Design Plan A and B to solve…



CAMPER – FOR THE INTERNET

C – *Consequences/Consistency/Currency*	a. what is the consequence of me believing all of this as presented? b. how consistent is the information compared to other sources? c. Is there a bibliography? d. does the site link to other sources of information about my topic? e. how current is the information and is the site updated regularly?
A – *Assumptions/Accuracy/Authorship/ Audience*	a. What assumptions have been made here? b. How accurate is the information? c. Who is the author? What are the author's credentials? d. Who is the intended audience?
M – *Meaning/Main points*	a. What are the main points? b. What isn't here?
P – *Prejudice/Point of view/Provider/ Purpose*	a. Who is the provider of the information? b. What is the author's point of view or bias? c. What is the other point of view? d. What is the purpose of the site - inform/persuade/explain?
E – *Evidence/Examples*	a. What is the evidence to support the claim? b. What examples are provided?
R – *Relevance/Reliability*	a. How relevant is the site to my research/key questions? b. Is the site reliable - easy to navigate, clear, and quick to download?



Random Picture Technique

The first thing you need for this technique is, fairly obviously, a random picture.

This is then used as a prompt to come up with new ideas and solutions.

You can get such an image from brainstorming software or you can select it at random yourself from a magazine, encyclopedia, or picture book. You can also use a picture from a website.

You should look at the picture, extract a concept or idea from it, and use this idea to stimulate a possible solution to your problem.

Try to see anything in the picture which reminds you of your problem and how it might be solved. What activities are going on? What situations are being faced? Why are the people doing what they are doing? What principles are being used?

With a picture in front of you, extract an idea from it, or imagine a similar theme/person/action happening within your own situation.

Next, think of how you can use that new situation/object/attitude in your own situation. It does not immediately have to be a positive solution but you may later be able to move from it to a good solution.

What do you have to be careful of when using the Random Picture Technique?

You must be careful of deciding that a specific picture is of no use and getting another instead. If you do this, then often you are just trying to choose a random picture which obviously fits into the problem you are just trying to solve and therefore you end up with a picture which is not random. Again, the skill is to work out HOW the picture can be made to fit.

You also have to be careful of linking the picture with an idea you already know about. You have to train your mind not to do this and to take the picture at face value and not use the technique to come up with an old idea to show that the old idea is good.

SCAMPER is an acronym which stands for questions relating to the following:

S – ***Substitute***: Think about substituting part of your product/process for something else. By looking for something to substitute you can often come up with new ideas.

Typical questions: What can I substitute to make an improvement? What if I swap this for that and see what happens? How can I substitute the place, time, materials, or people?

C – ***Combine*****:** Think about combining two or more parts of your problem to achieve a different product/process or to enhance synergy.

Typical questions: What materials, features, processes, people, products, or components can I combine? Where can I build synergy?

A – ***Adapt***: Think about which parts of the product/process could be adapted to remove the problem or think how you could change the nature of the product/process.

Typical questions: What part of the product could I change? In exchange for what? What if I were to change the characteristics of a component?

M – ***Modify/distort***: Think about changing part or all of the current situation, or to distort it in an unusual way. By forcing yourself to come up with new ways of working, you are often prompted into an alternative product/process.

Typical questions: What happens if I warp or exaggerate a feature or component? What will happen if I modify the process in some way?

P – ***Put to other purposes***: Think of how you might be able to put your current solution/product/process to other purposes, or think of what you could reuse from somewhere else in order to solve your own problem. You might think of another way of solving your own problem or finding another market for your product.

E – ***Eliminate***: Think of what might happen if you eliminated various parts of the product/process/problem and consider what you might do in that situation. This often leads you to consider different ways of tackling the problem.

Typical questions: What would happen if I removed a component or part of it? How else would I achieve the solution without the normal way of doing it?

R – ***Rearrange/Reverse***: Think of what you would do if part of your problem/product/process worked in reverse was or done in a different order. What would you do if you had to do it in a different order? What would you do if you had to do it in reverse? You can use this to see your problem from different angles and come up with new ideas.

Typical questions: What if I did it the other way around? What if I reverse the order in which it is done or the way it is used? How would I achieve the opposite effect?

Six Thinking Hats

Based on principles of parallel thinking, this program seeks to categorize thinking, and to consciously focus one's thinking on any one category at a time. It is a dynamic and interactive training program that prepares participants for running effective meetings, solving group problems and fostering a spirit of creativity within an organization. The Six Thinking Hats program puts forward a very simple concept which allows someone to think one thing at a time. He or she becomes able to separate emotion from logic, creativity from information, and so on. Putting on any one of the six thinking hats defines a certain type of thinking. Dr. de Bono maintains, "The six thinking hats allow us to conduct our thinking as a conductor might lead an orchestra. Similarly, in any meeting it is very useful to switch people out of their usual track in order to get them to think differently about the matter at hand."

The Six Metaphorical Hats (or modes)

The White Hat

The White Hat calls for information known or needed.

The Red Hat

The Red Hat signifies feelings, hunches and intuition.

The Yellow Hat

The Yellow Hat symbolizes brightness and optimism.

The Green Hat

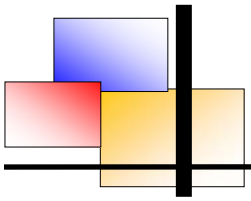
The Green Hat focuses on creativity, possibilities, alternatives, and new idea.

The Black Hat

The Black Hat is judgment - the devil's advocate or why something may not work.

The Blue Hat

The Blue Hat is used to manage the thinking process.



Introduction to Socratic Questioning

Socratic questioning is a simple yet strong method for exploring ideas of statements in depth and breadth. It is applicable in all courses and an essential tool of all teachers of thinking. In simplest form, it involves:

- Selection of a question or issue of interest.
- Production and examination of a central statement from some source or produced by a student in response to the question or issue.
- Clarification of the statement and its relationship to the question or issue.
- Listing and critical examination of support, reasons, evidence, and assumptions related to the central statement.
- Exploration of the origin or source of the statement.
- Developing and critically examining the implications and consequences of the statement.
- Seeking and fairly examining conflicting views (alternative points of view).

Socratic Questioning Cheat Sheet

Clarification questions:

What do you mean by _____?
What is your main point?
How does _____ relate to _____?
Could you put that another way?
What do you think is the main issue here?
Let me see if I understand you; do you mean _____ or _____?
Jane, would you summarize in your own words what Richard has said? . . . Richard, is that what you meant?
Could you give me an example?
Would this be an example: _____?
Could you explain that further?
Could you expand upon that?

Questions about the initial question or issue:

How can we find out?
What does this question assume?
Would _____ put the question differently?
How could someone settle this question?
Can we break this question down at all?
Is the question clear? Do we understand it?
Is this question easy or hard to answer? Why?
Does this question ask us to evaluate something?
To answer this question, what questions would we have to answer first?
Is this the same issue as _____?
How would _____ put this issue?
Why is this question important?
Does this question lead to other questions or issues?

Assumption probes:

What are you assuming?
What is Karen assuming?
What could we assume instead?
You seem to be assuming _____. Do I understand you correctly?
All of your reasoning depends on the idea that _____. Why have you based your reasoning on _____ rather than _____?
You seem to be assuming _____. How would you justify taking this for granted?
Is this always the case? Why do you think this assumption holds here?
Why would someone make this assumption?

Reason and evidence probes:

What would be an example?
How do you know?
Why do you think that is true?
Do you have any evidence for that?
What difference does that make?
What other information do we need?
Could you explain your reasons to us?
Are these reasons adequate?
Can you explain how you logically got from _____ to _____?
Do you see any difficulties with their reasoning here?
Why did you say that?
What led you to that belief?
How does that apply to this case?
What would change your mind?
But is that good evidence to believe that?
Is there reason to doubt that evidence?
Who is in a position to know if that is so?
What would you say to someone who said _____?
Can someone else give evidence to support that response?
By what reasoning did you come to that conclusion?
How could we find out whether that is true?

Origin or source questions:

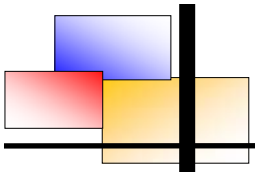
Where did you get this idea?
Do your friends or family feel the same way?
Have you always felt this way?
What caused you to feel this way?
Did you originate this idea or get from someone else?

Implication and consequence probes:

What are you implying by that?
When you say _____, are you implying _____?
But if that happened, what else would happen as a result? Why?
Would that necessarily happen or only probably happen?
What is the probability of this result?
What is an alternative?
If this and this are the case, then what else must also be true?
If we say that this is unethical, how about that?

Viewpoint questions:

You seem to be approaching this issue from _____ perspective. Why have you chosen this rather than that perspective?
How would other groups/types of people respond? Why? What would influence them?
How could you answer the objection that _____ would make?
Can/did anyone see this another way?
What would someone who disagrees say?
What is an alternative?
How are Ken's and Roxanne's ideas alike? Different?



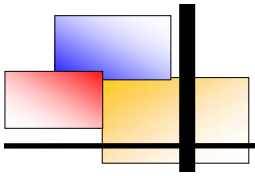
The Six Types of Socratic Questions

Due to rapid addition of new information and the advancement of science and technology that occur almost daily, an engineer must constantly expand his or her horizons beyond simple gathering information and relying on the basic engineering principles.

A number of homework problems have been included that are designed to enhance critical thinking skills. Critical thinking is the process we use to reflect on, access, and judge the assumptions underlying our own and others' ideas and actions.

Socratic questioning is at the heart of critical thinking and a number of homework problems drawn from R.W. Paul's six types of Socratic questions:

Questions for clarification:	a. Why do you say that? b. How does this relate to our discussion? c. What do you mean by _____? d. What do we already know about _____?
Questions that probe assumptions:	a. What could we assume instead? b. How can you verify or disprove that assumption? c. Could you explain why you arrived at that conclusion? (Explain how.) d. What would happen if _____? e. Do you agree or disagree with this statement?
Questions that probe reasons and evidence:	a. What would be an example? b. What is _____ analogous to? c. What do you think causes _____ to happen? Why? d. What evidence is there to support your answer?
Questions about viewpoints and perspectives:	a. What would be an alternative? b. What is another way to look at it? c. Would you explain why it is necessary or beneficial and who benefits? d. Why is_____ the best? e. What are the strengths and weaknesses of _____? f. How are _____ and _____ similar? g. What is a counterargument for ____? h. Compare _____ and _____with regard to___.
Questions that probe implications and consequences:	a. What generalizations can you make? b. What are the consequences of that assumption? c. What are you implying? d. How does _____ affect _____? e. How does _____ tie in with what we learned before? f. Why is _____ important?
Questions about the question:	a. What was the point of this question? b. Why do you think I asked this question? c. What does _____ mean? d. How does _____ apply to everyday life?



The Williams Model:
Cognitive - Affective Interaction

The model is three-dimensional:

Dimension One is concerned with subject matter, where any subject matter found in the school curriculum can be included.
Dimension Two is a list of eighteen teacher-strategies that Williams believes stimulate positive learning behaviors. These strategies may be used with any content area, with the first eleven representing the strategies which are most ignored in schools and which are yet the most appropriate for gifted students.
Dimension Three involves nine creative processes which foster creative potential.

The Williams model may be implemented using a variety of methods to involve all three dimensions. These dimensions may be detailed as follows:

Cognitive – Intellective Behaviors

Fluency	Generation of a quantity of relevant responses.
Flexibility	Variety of ideas or a shift in categories and directions of thought.
Elaboration	Embellishment or improvement of ideas; addition of details.
Originality	Unusual and/or unique ideas or responses; movement away from the obvious.

Affective – Temperament Behaviors

Risk Taking	Expose oneself to failure; take a guess; function in unstructured conditions.
Curiosity	Be inquisitive; toy with ideas; follow hunches; be open to puzzlement.
Complexity	Delve into intricate problems willingly; seek alternatives; see gaps.
Imagination	Visualize; build mental images; feel intuitively; reach beyond reality.

Teaching Strategies

Paradox	Statement or proportion which seems to be self-contradictory but may express a truth.
Attribute Listing	Inherent properties or identities that must be open-ended.
Analogy	Finding similarities between things or situations which may in other ways be different.
Discrepancy	Gaps or missing links in given knowledge.
Provocative question	Inquiry to incite exploration and curiosity.
Examples of change	Show the dynamics of things; make modifications; alternations, or substitutions.
Examples of habit	Build sensitivity to habit-bound thinking.
Organized random search	Structured case study for new courses of action.
Skills of search	Research on something done before; trial and error on new ways.
Tolerance for ambiguity	Pose open-ended situations, e.g., 'What if …?'
Intuitive expression	Expressing emotion through the senses; guided imagery; role– playing.
Adjustment to development	Examine or playback mistakes or failures.
Study creative development	Analyze the traits of creative people, creative processes, or creative products.
Evaluate situations	Extrapolate from ideas and actions; analyze implications or consequences.
Creative reading skill	Generate novel ideas by reading.
Creative listening skill	Generate novel ideas by listening.
Creative writing skill	Generate novel ideas in writing.
Visualization	Express ideas in three dimensional format or non-traditional formats.

Appendix:
Affective Guidance and Counseling

Advanced by Design
REACH-Out and Nurture

Taxonomy of Educational Objectives: Affective Domain

David Krathwohl developed a hierarchy of affective learning, the *Taxonomy of Educational Objectives: Handbook II: Affective Domain* (Krathwohl, Bloom, & Masia, 1964). The taxonomy is a list of objectives to sequence behaviors that would indicate growth in the emotional areas of function. Barbara Clark, *Growing Up Gifted*.

Category	Subdivisions	Student Behavior to Be Attained (Educational Objectives)
1.0 Receiving	1.1 Awareness	Observes; recognizes; is aware of; develops sensitivity to.
	1.2 Willingness	Accepts others; develops a tolerance for, listens carefully; recognizes persons as individuals.
	1.3 Controlled and selected attention	Discriminates; appreciates alertness to; selects reading materials.
2.0 Responding	2.1 Acquiescence in responding	Willing to comply; observes rules and regulations.
	2.2 Willingness to respond	Voluntarily seeks information; engages in variety of activities. Responds to intellectual stimuli; engages in research.
	2.3 Satisfactory in response	Finds pleasure in reading, listening, conversing, art, participation in groups.
3.0 Valuing	3.1 Accepting a value	Develops a sense of responsibility; of kinship; of need to worship.
	3.2 Preference for a value	Interest in enabling others; examines a variety of viewpoints; assumes active role in politics, literary organizations.
	3.3 Commitment	Displays a high degree of certainty, loyalty, faith in the power of reason.
4.0 Organization	4.1 Conceptualization of a value	Establishes a conscious base for making choices. Identifies admired characteristics. Analyzes basic assumptions underlying codes of ethics and faith. Forms judgment as to responsibility of society to the individual and environment. Develops personal goals.
	4.2 Organization of a value system. Example 1. Theoretical 2. Economic 3. Aesthetic 4. Social 5. Political 6. Religious	Examines role of democracy in conserving human and natural resources; accepts own potentialities and limitations realistically; views people as individuals, without prejudice; develops techniques for conflict management. Accepts responsibility for the future.
5.0 Characterization of a Value	5.1 Generalized set: the basic orientation which enables the individual to act consistently and effectively in a complex world	Readiness to reverse judgments or change behavior in light of evidence; to change one's mind and face facts; confidence in ability to succeed; solves problems in terms of what is, rather than wishful thinking.
	5.2 Characterization: one's personal philosophy of life demonstrated in behavior	Develops a code of behavior based on ethical principles consistent with democratic ideals; behavior which is consistent with beliefs.

Common Issues for Discussion

- **Positive self-concept may be difficult to maintain because of excessive self-criticism and sensitivity to criticism from others. Gifted students may experience a split self-concept because of the conflict between superior ability and the need to be "one of the gang."**

- **Great frustration may occur in gifted students with subjects or situations they can not handle. They may not know how to ask for help when they need it.**

- **Greater sensitivity and perceptiveness may result in acute negative responses to lack of genuineness, warmth, and understanding, or to an uncomfortable situation.**

- **Values and attitudes are likely to be divergent, different from the norm. This can make it difficult for them to find true peers and may complicate career/vocational choices and pursuits.**

- **Gifted students are not necessarily aware of their own abilities. They may not have had the opportunity to do truly outstanding work because they have not been fully challenged in the classroom.**

- **Gifted students may have intense single interests and fail to apply themselves in other areas of school and social life. They may have poor and inefficient study habits.**

- **Gifted girls often face socialization conflicts and lack good role models. Personal and social problems can result, as well as underachievement in school and career/vocation.**

- **Gifted cultural and racial minorities may lack family support, appropriate role models, and social/economic access to particular careers or vocations.**

- **The wider interest and multiple superior abilities of gifted students often require a broader range of career areas for exploration and selection.**

- **Counseling and Personnel Services Clearinghouse**

Advanced by Design
REACH-Out and Nurture

Appendix:
Journal Articles

Advanced by Design
REACH-Out and Nurture

Promoting Student Achievement and Exemplary Classroom Practices Through Cluster Grouping: A Research-Based Alternative to Heterogeneous Elementary Classrooms

Marcia Lynne Gentry

In this monograph, a causal-comparative, longitudinal study of cluster grouping at the elementary level is described and recommendations are made based on findings. This study employed both quantitative and qualitative methodologies. The primary purpose of this study was to examine the effects of an existing cluster grouping program on the achievement and identification of students who participated in the program from third through fifth grade and to compare achievement with similar students who were not involved in a cluster grouping program. Descriptive and inferential statistics were used to address these areas. A secondary purpose of this study was to investigate the practices of the teachers who taught in the school using cluster grouping to help provide insight into their classrooms and the school, which was done using qualitative follow-up methods.

Results included more students being identified as high achieving during the 3 program years, achievement scores increasing within the school using cluster grouping, and a significant interaction between the treatment and comparison school in favor of the treatment school. Additionally, qualitative findings indicated that teachers used flexible grouping, gifted education strategies, had high yet realistic expectations of their students, and were involved in professional development in gifted education.

Reference:

Gentry, M. L. (1999). *Promoting Student Achievement and Exemplary Classroom Practices Through Cluster Grouping: A Research-Based Alternative to Heterogeneous Elementary Classrooms* (RM99138). Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.

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Promoting Student Achievement and Exemplary Classroom Practices Through Cluster Grouping: A Research-Based Alternative to Heterogeneous Elementary Classrooms
Marcia Lynne Gentry

Conclusions

1. Placing high achievers together in one classroom challenges those students, enabling other students to become academic leaders and allowing new talent to emerge.
2. Cluster grouping makes it easier for teachers to meet the needs of students in their classrooms by reducing the achievement range of students within a classroom.
3. Cluster grouping used in conjunction with challenging instruction and high teacher expectations may improve how teachers view their students with respect to ability and achievement.
4. Achievement scores improved over a three-year period for students in a cluster group environment and the number of students identified as high achievers increased.
5. Flexible grouping within and between classes that reduces the achievement range of each class can provide many benefits to all students and teachers.
6. The positive effects of cluster grouping result from many changes in the school climate such as:
    - creating opportunities for staff development, emphasizing a variety of instructional strategies;
    - raising teacher expectations;
    - creating a sense of ownership;
    - reducing the range of achievement levels in classrooms;
    - creating opportunities for collaboration with colleagues and administration.

TIPS FOR SELECTING THE RIGHT COUNSELOR OR THERAPIST FOR YOUR GIFTED CHILD

James T. Webb, Ph.D., ABPP-Cl

Clinical Psychologist

Dr. Webb is co-author of the book Misdiagnosis and Dual Diagnoses of Gifted Children and Adults: ADHD, Bipolar, OCD, Asperger's, Depression, and Other Disorders

When should one seek counseling? Is it worth it? How do I find a counselor/therapist? Such questions often are asked by parents of gifted and talented children. Here are some helpful tips.

Preventive guidance is certainly the best, and the most helpful counseling often comes through talking with other parents of gifted children. Parents worry whether their child's experiences are normal, whether they, as parents, are providing adequate stimulation, about how to react to the exhausting intensity which their child shows, about how to avoid the power struggles, and so on. Gifted children often do not fit the developmental norms published in the parenting handbooks; they tend to reach developmental stages earlier and more intensely than other children.

Parenting a gifted child can be a very lonely experience unless one seeks out other parents. Sometimes this can be done informally just by meeting other parents of gifted children in your school district or neighborhood. Sometimes it can be done via the Internet through TAGFAM or other similar online discussion groups. Perhaps the most helpful are the SENG-Model support groups where parents share common experiences as well as "parenting recipes" under the guidance of trained facilitators. Information about how to set up such groups can be found in *Gifted Parent Groups: The SENG Model* (Webb & DeVries, 1998).

Preventive guidance also comes from books written specifically about the social and emotional needs of gifted children. There are several excellent resources to guide parents of gifted children including books such as *Guiding the Gifted Child*, *Smart Girls, Smart Boys*, or *Some of My Best Friends Are Books, 2nd Edition* (2002) as well as videos like *Is My Child Gifted?, Do Gifted Children Need Special Help?,* or *Parenting Successful Children.* Ask other parents, check with your librarian or bookstore, or search the Internet or Amazon.com®.

Even with these resources, parenting gifted children often is a challenge, and emotions and interpersonal interactions are not only intense but also are continually changing. When is professional assessment and guidance needed? If a problem, such as anxiety, sadness, depression, or poor interpersonal relations continues for longer than a few weeks, it would be worthwhile to consider professional consultation. Even if the problems turn out to be minor ones, you will at least have received reassurance and some guidance.

Some families have decided to have a family psychologist in the same way that they have a family physician—someone they can go to regularly for checkups or for assistance if things seem not to be going well. I have often recommended this particularly to parents of highly or profoundly gifted children, not only because the intensity and sensitivity are so much greater than even that of other gifted children, but also because these children tend to be more asynchronous in their development, and therefore even more of a puzzlement to those around them.

Some parents are concerned about the cost. A thorough professional may take several hours over two or three appointments to get to know your child and to understand your child's environment. The cost, perhaps $400 to $900, may seem high. However consider what you would pay for a thorough dental examination with x-rays, or to have your child's teeth straightened. Most parents say that a psychological consultation, including testing, is very helpful not only because of specific recommendations they receive, but also because the assessment results provide a yardstick with which to gauge the severity of the problems and to assess what is reasonable to expect of the child. Certainly, many sources, including the 1995 *Consumer Reports* study, have confirmed the effectiveness of counseling.

Regrettably, it likely will be difficult to find a counselor or therapist who is knowledgeable about gifted and talented children. Few psychologists, psychiatrists, social workers or counselors have received training in the social and emotional needs of gifted and talented children. They, like many others, often believe that giftedness is only an asset, and that high ability seldom is associated with problems.

So how do you find a psychologist or counselor? I would suggest that you shop around. Ask other parents of gifted children for their recommendations or if they know counselors who have been helpful to them. Most often these other parents are quite happy to share their information and experiences, and many of them will have sought professional help somewhere along the way. As a colleague of mine once said, "There are two kinds of people. Those with problems, and those you don’t know well enough yet to know what their problems are."

Perhaps other parents cannot recommend a qualified professional who is already knowledgeable about gifted children. But, you may be able to find a well-trained counselor or psychologist who simply is open to learning about gifted children, and that usually is sufficient. Ask the counselor or therapist about his or her experience and background with gifted children and their families. Then, ascertain if the counselor or therapist is open to learning about gifted children by consulting with colleagues or by reading a few publications. You might mention continuing education programs for psychologists about the social and emotional needs of gifted children and their families, such as those offered by SENG (Supporting Emotional Needs of the Gifted).

You—the parents—may have to educate the professional about the characteristics and needs of gifted children, and you may even have to supply the professional with reprints of articles or suggest books to read. For example, you may point out to the psychologist, psychiatrist or pediatrician that the book, *Guiding The Gifted Child* (Webb, Meckstroth & Tolan, 1982), was recognized by an award from the American Psychological Association Foundation, or you may give the counselor copies of *ERIC Digest* articles on the social and emotional needs of gifted children, or provide copies of downloads from websites such as www.SENGifted.org or www.hoagiesgifted.org.

Once you find a professional, enter counseling on a trial basis to see if the counselor's approach and style fit with your needs. Sometimes a very competent psychologist may have a personal style that simply doesn't fit with yours. If you are uncomfortable with the initial findings and recommendations, consider getting a second opinion. Second opinions have been accepted for a long time in medicine, and they are increasingly accepted in psychology and education.

How do you tell your child that you are going to see a counselor? Most often I suggest that you describe the consultation as a professional "look see" to get help you plan so that family and school experiences can be as enjoyable as they might be, and to figure out what is reasonable to expect of your child. Generally you will want to suggest to the child that the consultation will be a family endeavor. You may say that you are going to get family consultation to help you be better parents. Of course, you don't want to suggest that the child is simply a "problem" that the counselor will "fix." You may wish to talk to the professional ahead of time to get suggestions for your particular situation concerning the best way to approach your child.

What can you expect? Probably the counselor or therapist will want the parents, as well as the child, to fill out questionnaires or brief psychological tests to help get an understanding of the family setting. The counselor will probably want to see the parents and the child together, then the child alone, and then the parents alone. The counselor may want to talk to the teacher, or even visit the school for observation. A psychologist may wish to talk to the child's pediatrician. The psychologist may also want to do formal testing of intellect, achievement, and emotional functioning. All of this will take time. The testing alone may take three or four hours, and probably the psychologist will divide that into two or three sessions to make sure the child is not fatigued, and also to have the opportunity to see the child on at least two separate occasions to look for any behavior changes. And the counselor will do a lot of listening and asking questions. This is good. You want thoughtful suggestions and advice based on a thorough assessment, not a casual or sloppy approach. Try to be patient, but ask the counselor questions as well as answering them.

When the assessment is finished, you should expect to have a meeting of at least an hour with the counselor, psychologist, or psychiatrist to learn what the findings are and to plan what should happen next. If there is a significant diagnosis, ask how it was arrived at. Make sure, ahead of this appointment, that the professional was made aware of articles such as *Mis-Diagnosis and Dual Diagnosis of Gifted Children* (Webb, 2000) to try to minimize the likelihood that gifted behaviors are not mis-diagnosed. For example, some gifted children, if they are in an environment with few intellectual peers, are misdiagnosed as suffering Asperger's Disorder. Others, with their intense moods, may be misdiagnosed as Bi-Polar Disorder. Also, however, be alert to the possibility that gifted behaviors may mask real diagnoses. For example, more than one gifted child has been able to put on a happy face to conceal significant depression, and sometimes children suffering Asperger's Disorder are mistaken as simply "quirky gifted children."

If therapy is needed, insist that the counselor or therapist meet with the parents as well as the child—at least once for every three or four times the child is seen. For pre-adolescent youngsters, rarely is it appropriate for a therapist to counsel the child for several sessions without also consulting with the parents. You are a key part of the child's world, and you need to know how to assist the counseling process. Most therapists will suggest specific behaviors for you to try at home or at school.

Medication for children—including gifted children—should be used only when really necessary. Try to insure that the medication is not being prescribed to treat characteristics of giftedness, such as the child's intensity, curiosity, divergent thinking, or boredom in an educationally inappropriate placement. All too many highly gifted children have been mis-diagnosed as ADHD or as Oppositional Defiant Disorder and placed on medication, when what really was needed was more understanding, appropriate behavioral approaches, or an educational modification.

If you conclude that a modification needs to be made in the educational setting, talk to the counselor or psychologist about this. These professionals often can provide significant support and assistance in negotiations with school personnel since their assessment information will be highly relevant. This would be true whether your child is in public, private or charter school (Rogers, 2001) or is being home schooled (Rivero, 2002).

Finally, believe in yourself. You are the parent, and the one in charge of the family. Professionals are "hired help." Seeking counseling or therapy may not be easy, but particularly when you have an exceptional child, the benefits are worth it.

References

Consumer Reports (1995, Nov.) Mental Health: Does Therapy Help?

Halsted, J. W. (2002). *Some of My Best Friends Are Books: Guiding Gifted Readers from Pre-School through High School*, 2nd Edition. Scottsdale, AZ: Great Potential Press (formerly Gifted Psychology Press).

Kerr, B. A. (1997). *Smart Girls: A New Psychology of Girls, Women and Giftedness*. Scottsdale, AZ: Great Potential Press (formerly Gifted Psychology Press).

Kerr, B. A. & Cohn, S. J. (2001) *Smart Boys: Talent, Manhood, and the Search for Meaning*. Scottsdale, AZ: Great Potential Press (formerly Gifted Psychology Press).

Rivero, L. (2002). *Creative Home Schooling for Gifted Children: A Resource Guide*. Scottsdale, AZ: Great Potential Press (formerly Gifted Psychology Press).

Rogers, K. B. (2001). *Re-Forming Gifted Educaiton: Matching the Program to the Child.* Scottsdale, AZ: Great Potential Press (formerly Gifted Psychology Press).

Webb, J. T. (2000). *Mis-Diagnosis and Dual Diagnosis of Gifted Children: Gifted and LD, ADHD, OCD, Oppositional-Defiant Disorder*. ERIC Digest 448-382.

Webb, J. T. (2000). *Is My Child Gifted? If So, What Can I Expect?* (Video). Scottsdale, AZ: Great Potential Press (formerly Gifted Psychology Press).

Webb, J. T. (2000). *Do Gifted Children Need Special Help?* (Video). Scottsdale, AZ: Great Potential Press (formerly Gifted Psychology Press).

Webb, J. T. (2000). *Parenting Successful Children*. (Video). Scottsdale, AZ: Great Potential Press (formerly Gifted Psychology Press).

Webb, J. T. and DeVries, A. R. (1998). *Gifted Parent Groups: The SENG Model*. Scottsdale, AZ: Great Potential Press (formerly Gifted Psychology Press).

Webb, J. T., Meckstroth, E. A., and Tolan, S. S. (1982). *Guiding the Gifted Child: A Practical Source for Parents and Teachers*. Scottsdale, AZ: Great Potential Press (formerly Gifted Psychology Press).

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Appendix:
Position Papers

Advanced by Design
REACH-Out and Nurture

National Association for Gifted Children
POSITION PAPER

ABILITY GROUPING

The practice of grouping, enabling students with advanced abilities and/or performance to be grouped together to receive appropriately challenging instruction, has recently come under attack. NAGC wishes to reaffirm the importance of grouping for instruction of gifted students. Grouping allows for more appropriate, rapid, and advanced instruction, which matches the rapidly developing skills and capabilities of gifted students.

Special attention should be given to the identification of gifted and talented students who may not be identified through traditional assessment methods (including economically disadvantaged individuals, individuals of limited English proficiency, and individuals with handicaps), to help them participate effectively in special grouping programs.

Strong research evidence supports the effectiveness of ability grouping for gifted students in accelerated classes, enrichment programs, advanced placement programs, etc. Ability and performance grouping has been used extensively in programs for musically and artistically gifted students, and for athletically talented students with little argument. Grouping is a necessary component of every graduate and professional preparation program, such as law, medicine, and the sciences. It is an accepted practice that is used extensively in the education programs in almost every country in the western world.

NAGC does not endorse a tracking system that sorts all children into fixed layers in the school system with little attention to particular content, student motivation, past accomplishment, or present potential.

To abandon the proven instructional strategy of grouping students for instruction at a time of educational crisis in the U.S. will further damage our already poor competitive position with the rest of the world, and will renege on our promise to provide an appropriate education for all children.

(Approved 11/91)

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National Association for GIFTED CHILDREN

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Acceleration

Educational acceleration is one of the cornerstones of exemplary gifted education practices, with more research supporting this intervention than any other in the literature on gifted individuals. The practice of educational acceleration has long been used to match high level student general ability and specific talent with optimal learning opportunities. The purposes of acceleration as a practice with the gifted are 1) to adjust the pace of instruction to the students' capability in order to develop a sound work ethic, 2) to provide an appropriate level of challenge in order to avoid the boredom from repetitious learning, and 3) to reduce the time period necessary for students to complete traditional schooling. Acceleration benefits many highly capable individuals by better motivating them toward schooling, enhancing their involvement with extracurricular activities, promoting more challenging options in the middle school and high school years, and preparing them to begin contributing to society at an earlier age. While not as widely used as a practice with diverse gifted learners, evidence suggests that it can be a successful strategy with low income, minority, and students with learning problems as well. Therefore, NAGC strongly endorses this practice as one important avenue to address the needs of gifted learners.

Acceleration practices involve allowing a student to move through traditional educational organizations more rapidly, based on readiness and motivation. Research documents the potential academic benefits and positive outcomes of all forms of appropriately implemented acceleration strategies for intellectually gifted and academically talented learners. These research-based best practices include grade skipping, telescoping, early entrance into kindergarten or college, credit by examination, and acceleration in content areas through such programs as Advanced Placement and International Baccalaureate at the high school level. Instructional adaptations in the classroom such as compacting, which allows for more economic use of learning time in a specific subject, are also a desirable and best practice for talented students.

Both group and individual decisions can be made in respect to accelerative options. For example, both AP and IB programs by virtue of their structure and content offer college-level work. As long as students meet prerequisites and accept the rigors of such programs, gifted and other learners can and should take advantage of such group-oriented programs. At an individual level, students may be tutored or engage in online coursework at an accelerated level. Such options can be more readily tailored for individual needs.

Talent search programs at selected universities provide early assessment of advanced mathematical and verbal abilities in students such that decisions on appropriate accelerative options can be constructed inside and outside of schools. For example, several acceleration opportunities can be accessed through online coursework in specific content areas or offered at university sites. Advanced Placement as an accelerative option may be made available throughout the high school years or earlier through independent study, tutorials, or special classes.

Acceleration options should be available at each stage of development in a child's educational program from early entrance to primary school up through early college entry in order to even out the curriculum challenge. Parents may also wish to seek out accelerative opportunities beyond the school

setting in order to accommodate an individual student need that cannot be met in traditional school settings.

Yet acceleration decisions should be made thoughtfully with the needs of the whole child in mind. In decision-making about the appropriateness of a particular form of acceleration and the extent of acceleration for a given child at a given time, educators and parents should consider the child's intellectual and academic profile, socio-emotional and physical development, and preferences and dispositions of the child relative to the decision since acceleration may not always be the appropriate option for every gifted child. Factors that enhance the success of acceleration practices include 1) positive attitudes of teachers, 2) timelines related to the decision, 3) parental support, and 4) careful monitoring of the implementation.

Highly able students with capability and motivation to succeed in placements beyond traditional age/grade parameters should be provided the opportunity to enroll in appropriate classes and educational settings. The National Association for Gifted Children program standards provide some guidance for using accelerative practices on a routine basis at all stages of development.
Acceleration policies in schools should ensure that opportunities such as the ones described here are available provisions in all gifted programs for individuals and groups of learners ready to advance beyond the standard curriculum at any age and in any area of learning.

Approved 9-27-04

Selected References

Benbow, C. P., & Lubinski, D. (1996). *Intellectual Talent*. Baltimore: Johns Hopkins Press.

This book chronicles landmark research on gifted individuals and the use of acceleration in their development. Based on the work of many researchers in the field, the volume explicates our understanding of the effectiveness of acceleration techniques with such students, the efficacy of accelerative programs and services for them, and views on the interplay of intelligence and productivity.

Colangelo, N., Assouline, S. G., & Gross, M. U. M. (2004). *A nation deceived: How schools hold back America's Students: The Templeton National Report on Acceleration.* Iowa City, IA: Belin-Blank Center. (Volumes 1 and 2).

In Volume 1, this report issues a wake-up call to America's schools on the need to provide accelerative options at every stage of development for gifted learners, using research evidence coupled with student vignettes of successful acceleration. The report argues convincingly for action on this key programming feature. In Volume 2 the argument for acceleration is further buttressed by actual data presented by researchers demonstrating its positive effects on the learning patterns of gifted students.

Gross, M. U. M. (2004). *Exceptionally Gifted Children*, London: Routledge.

This second edition of a longitudinal study highlights ongoing insights into the lives of highly gifted children in Australia, their families and their schools. It provides important findings into the social, emotional and academic needs of these children as they mature.

Rogers, K. (2003). *Reforming gifted education: How parents and teachers can match the program to the child,* Scottsdale, AZ: Great Potential Press Inc.

This comprehensive text on program development provides meta-analyses on the issue of acceleration, coupled with sound practical strategies for employing it in schools.

Southern, T. & Jones, E. (Eds.) (1991). *The academic acceleration of gifted children,* New York, NY: Teachers' College Press.

This edited volume provides a strong overview of diverse perspectives and views on acceleration in various modes and at various stages of development. It represents a compendia of important ideas for practitioners.

Swiatek, M.A., & Benbow, C. P. (1991). Ten-year longitudinal follow-up of ability-matched accelerated and unaccelerated gifted students. *Journal of Educational Psychology, 83*, 528-538.

This research article reports on the long term benefits of acceleration in a rigorously controlled study. Based on the Study for Mathematically Precocious Youth (SMPY) findings, the authors highlight the positive outcomes found for accelerated learners.

VanTassel-Baska, J. (2004). *The acceleration of gifted students' programs and curricula.* In Karnes, F. A. & Stephens, K. R. (eds.) fastback series, Waco, TX: Prufrock Press.

This practical guide provides administrators and teachers with ideas, strategies, and assessment protocols for using various techniques of acceleration in school, including the diagnostic prescriptive approach, compacting, testing out of curriculum standards, and selection of advanced materials.

National Association for Gifted Children
POSITION PAPER

ADDRESSING AFFECTIVE NEEDS OF GIFTED CHILDREN

The National Association for Gifted Children (NAGC) periodically issues policy statements dealing with issues, policies, and practices that have an impact on the education of gifted and talented students. Policy statements represent the official convictions of the organization.

All policy statements approved by the NAGC Board of Directors are consistent with the organization's belief that education in a democracy must respect the uniqueness of all individuals, the broad range of cultural diversity present in our society, and the similarities and differences in learning characteristics that can be found within any group of students. NAGC is fully committed to national goals that advocate both excellence and equity for all students, and we believe that the best way to achieve these is through differentiated educational opportunities, resources, and encouragement for all students.

Educational and counseling programs must provide all children with opportunities to develop understanding of themselves and their role in society. Because, by definition, gifted children differ significantly from others, these programs should be responding to the social-emotional or affective characteristics that distinguish gifted students from others. Furthermore, since significant differences also exist within the gifted population, appropriate services need to be designed and implemented to respond to individual differences.

Characteristics such as emotional and moral intensity, sensitivity to expectations and feelings, perfectionism, lofty goals and standards for themselves and others, and deep concerns about societal problems at an early age are found in a proportionally higher incidence among gifted and talented children. Those who have disabilities or differ in other ways, including culturally, linguistically, or socioeconomically may have additional affective needs.

NAGC believes that gifted children also require appropriate affective services including gifted-focused counseling interventions and career-development guidance programs if they are to develop their potential. NAGC recommends that these services be designed to:

• Provide orientation to gifted programming, including information about the selection process and the social, emotional, and academic implications of the giftedness
• Enhance relationships with others, including both those who are identified as gifted and those who are not
• Assist with long-term life planning, including opportunities to deal with issues related to multi-potentiality
• Provide counseling that addresses the increased incidence of perfectionism, unrealistic goals, emotional intensity, moral concerns, and the resultant stress and lower achievement in the gifted population

Some gifted and talented children, because of heightened intellectual and social-emotional needs, may experience difficulties that require professional intervention. NAGC believes that it is imperative that those who provide services at such times have expertise in understanding the impact of giftedness on a child's development.

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National Association for Gifted Children
POSITION PAPER

COMPETENCIES NEEDED BY TEACHERS OF GIFTED AND TALENTED STUDENTS

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NAGC believes that all children deserve the highest quality of instruction possible and that such instruction will only occur when teachers are aware of and able to respond to the unique qualities and characteristics of the students they instruct. Gifted and talented students present a particular challenge and often experience inadequate and inappropriate education. To provide appropriate learning experiences for gifted and talented students, teachers need to possess:

- a knowledge and valuing of the origins and nature of high levels of intelligence, including creative expressions of intelligence;
- a knowledge and understanding of the cognitive, social, and emotional characteristics, needs, and potential problems experienced by gifted and talented students from diverse populations;
- a knowledge of and access to advanced content and ideas;
- an ability to develop a differentiated curriculum appropriate to meeting the unique intellectual and emotional needs and interests of gifted and talented students; and
- an ability to create an environment in which gifted and talented students can feel challenged and safe to explore and express their uniqueness.

NAGC believes that these competencies, in addition to those required for good teaching and learning in general, such as modeling openness, curiosity, and enthusiasm, are necessary for teachers of gifted and talented students. NAGC also believes that educational experiences through comprehensive programming must be available for teachers to develop these competencies.

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National Association for Gifted Children
POSITION PAPER

COOPERATIVE LEARNING FOR GIFTED STUDENTS

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Cooperative Learning (CL) encompasses a variety of classroom practices which include the following attributes: group interdependence built around common goals, a focus on social skills or group dynamics, and individual accountability for material learned. Cooperative learning experiences can provide valuable opportunities to share ideas, practice critical thinking, and gain social skills.

When heterogeneous CL groups are the primary strategy in the classroom, gifted students' needs may not be met. Cooperative learning advocates often stress forming CL groups with students intentionally clustered by mixed abilities. When gifted students are included in these CL groups, special care must be taken to differentiate the tasks appropriately. Cooperative learning is more likely to be effective for gifted learners when group tasks and goals:

- take into account differences in students' readiness levels, interests, and learning modes;
- focus on high level tasks that require students to manipulate, apply, and extend meaningful ideas;
- ensure appropriate and balanced work responsibilities for all participants;
- ensure balanced opportunities for learners to work with peers of similar as well as mixed readiness levels; and
- are balanced with opportunities for students to work independently and with the class as a whole.

When differentiation does not happen, gifted students may feel overburdened and responsible for the entire "workload."

Teachers who use CL with heterogeneous groups need additional support and preparation in how to structure the learning tasks to ensure that the instructional activities meet the cognitive and social needs of the most able students in the group. NAGC believes that cooperative learning should be viewed within a range of instructional strategies that may enhance some learning objectives for some gifted students some of the time but should not be used as a panacea to replace differentiated services addressing the educational needs of gifted students. When used in conjunction with an array of services to differentiate the education of gifted students, CL can be an appropriate strategy.

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National Association for Gifted Children
POSITION PAPER

DIFFERENTIATION OF CURRICULUM AND INSTRUCTION

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NAGC supports the provision of appropriate quality educational experiences for all students across the spectrum of ability, background, and achievement. The learning needs of gifted students often differ from those of other students and should be addressed through differentiation, a modification of curriculum and instruction based on the assessed achievement and interests of individual students.

To provide appropriate and challenging educational experiences for gifted students, differentiation may include:

- acceleration of instruction;
- in-depth study;
- a high degree of complexity;
- advanced content; and/or
- variety in content and form

Problems occur when teachers attempt to meet the needs of gifted students by limiting learning experiences to:

- offering more of the same level of material or the same kind of problem;
- providing either enrichment or acceleration alone;
- focusing only on cognitive growth in isolation from affective, physical, or intuitive growth;
- teaching higher thinking skills (e.g. research or criticism) in isolation from academic content;
- presenting additional work that is just different from the core curriculum; and/or
- grouping with intellectual peers without differentiating content and instruction.

Differentiation for gifted students consists of carefully planned, coordinated learning experiences that extend beyond the core curriculum to meet the specific learning needs evidenced by the student. It combines the curricular strategies of enrichment and acceleration and provides flexibility and diversity. Appropriate differentiation allows for increasing levels of advanced, abstract, and complex curriculum that are substantive and that respond to the learner's needs. NAGC believes that the use of such differentiation is essential to maximize the educational experience for gifted and talented students. NAGC further believes that appropriate educational experiences for these students are more effective when differentiated materials and activities are planned in advance and easily accessible.

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FINE ARTS EDUCATION

The National Association for Gifted Children (NAGC) periodically issues policy statements that deal with issues, policies, and practices that have an impact on the education of gifted and talented students. Policy statements represent the official convictions of the organization.

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Frequently, when school resources are limited, arts education funding is reduced or eliminated. Proponents of such cuts defend the action by referring to the arts as a valuable but non-essential element of an educational program designed primarily to develop basic skills. NAGC maintains that arts education is fundamental to an excellent basic education for all students and to an appropriately challenging curriculum for gifted students.

Arts education generally provides learning experiences through the art forms of music, visual art, theater, and dance. These experiences develop within students understandings of key arts principles of

- **history**—with abilities to inquire into the contributions artists and art make to society and culture
- **criticism**—with abilities to make judgments about qualities and properties found in art forms
- **aesthetics**—with abilities to make personal and sound decisions about works of art, and
- **production**—with abilities to participate in the arts and to produce personal works of art with skill and creativity

The goal of arts education is to equip students with the knowledge and skills needed to understand and communicate clearly within their personal, community, and cultural environments. Schools with well-supported arts education also often report enhanced reading, writing, and math skills; improved critical and creative thinking; and increased commitment to learning, and heightened multicultural understanding.

Arts education can benefit artistically gifted students by introducing them to the multiple possibilities for expression with the arts, educating them in the skills of perception, production, and performance, and opening gateways to the various career paths in the arts. As well, arts education can benefit academically gifted students by increasing the complexity and rigor of the curriculum, promoting extensive use of a variety of problem solving strategies, heightening student motivation to pursue a topic of interest in depth, and developing rich skills in communicating with varied audiences.

NAGC supports the principle that arts education is an essential component of a sound program leading to the achievement of fundamental educational goals. Further, NAGC encourages the identification of and provision of services for artistically gifted students, as well as the integration of fine arts education into programs for the gifted for the benefit of academically gifted students.

11/97 (revised)

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National Association for Gifted Children
POSITION PAPER

APPROPRIATE EDUCATION FOR GIFTED GLBT STUDENTS

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Many educational groups, at the national, state, and local levels, are concerned about how best to meet the particular needs of students who are gay, lesbian, bisexual, and transgendered (GLBT). NAGC, which has an organizational policy of non-discrimination toward GLBT persons, supports practices of equitable and sensitive treatment of GLBT youth and recommends that educators demonstrate understanding and equity toward gifted GLBT students in their schools.

Similar to other gifted youth, GLBT students may have strengths in any of the federally defined areas of giftedness: intellectual development, academic achievement, creativity, visual and performing arts, and leadership. Further, like other gifted youth, these students are present across races, genders, ethnic groups, income levels, geographical locations, religions, and abilities/disabilities. However, unlike most other groups of gifted students, GLBT youth may be placed in social-emotional double jeopardy: they may not only feel different from other youth because of their gifts but they may also feel isolated due to their sexual identities. These young people may experience unusually high rates of verbal and physical harassment, substance abuse, sexually-transmitted diseases, homelessness, and differential access to school services that can contribute to substantial problems such as dropping out of school, contemplation and completion of suicide, and many other by-products of social alienation.

It is critical to note that GLBT youth may be known or not known as sexual minorities to educators. Regardless of whether these youth are “out” or “not out” as GLBT persons, the assessments and programming that they receive should be sensitive to GLBT culture, taking into account the special ways in which gifted GLBT youth may display intellectual, academic, creative, artistic, and leadership excellence. Both in classrooms and school libraries, programming efforts for gifted GLBT youth should address a range of academic, affective, and career needs related to their development as gifted *and* GLBT people. Academic programming should be differentiated, empowering gifted GLBT students to develop their unique learning potential and interests in GLBT-sensitive school settings. Affective programming needs to provide for student safety, evoke acceptance and appreciation, develop social skills, and nurture self-advocacy abilities. Career education should encourage gifted GLBT youth to consider a range of

careers as wide as the span of their talents and interests rather than urge them into stereotypically gay or stereotypically straight positions in which they must submerge their true identities.

Whether engaged in academic, affective, or career programming, educators dealing with gifted GLBT students must model openness, fairness, and sensitivity regarding sexual-orientation issues. Because school environments may not support GLBT students, pre-service and in-service teachers, counselors, and other educational professionals must be trained specifically to create a safe and productive environment for gifted GLBT youth. A GLBT-supportive school atmosphere encourages adult and student acceptance of others and creates an environment where students develop self-understanding and pride. Only through such purposeful support of these students' development as *both* gifted *and* GLBT will these students be able to develop fully.

11/01

National Association for Gifted Children
POSITION PAPER

INCLUSION

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One of the many recent educational reforms affecting the field of special education has been that of *Inclusion*, which is the practice of educating children with disabilities in regular classrooms together with their non-disabled peers. This principle of *Inclusion* has recently been applied to gifted students in some educational settings.

NAGC maintains that gifted students, like other children with special needs, require a full continuum of educational services to aid in the development of the students' unique strengths and talents. One such option in that continuum of services for gifted students can be the regular classroom (inclusion). In such an inclusive setting there should be well-prepared teachers who understand and can program for these gifted students, and sufficient administrative support necessary to help differentiate the program to their special needs. There should be, for example, staff development to aid the general education teacher in understanding and instructing gifted students, provisions for teacher planning time, allowance for student independent study and access to a specialist in gifted education who can aid in differentiating the curriculum to meet the needs of advanced students.

NAGC supports the principle of excellence for all students and recognizes that there are many different models for educating students with special gifts; but all models, inclusion included, require a differentiated set of services that will allow these students to be challenged to be all they can be.

Approved 12/96

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National Association for Gifted Children
POSITION PAPER

STUDENTS WITH CONCOMITANT GIFTS AND LEARNING DISABILITIES

The National Association for Gifted Children (NAGC) periodically issues policy statements dealing with issues, policies, and practices that have an impact on the education of gifted and talented students. Policy statements represent the official convictions of the organization.

All policy statements approved by the NAGC Board of Directors are consistent with the organization's belief that education in a democracy must respect the uniqueness of all individuals, the broad range of cultural diversity present in our society, and the similarities and differences in learning characteristics that can be found within any group of students. NAGC is fully committed to national goals that advocate both excellence and equity for all students, and we believe that the best way to achieve these goals is through *differentiated* educational opportunities, resources, and encouragement for all students.

Due to a specific learning disability, an increasing number of students are not achieving up to their potential despite the fact that they demonstrate high ability or gifted behavior. These students exhibit characteristics of both exceptionalities: giftedness and learning disabilities. Their gifted behaviors often include keen interests, high levels of creativity, superior abilities in abstract thinking, and problem-solving prowess. Similar to their peers with learning disabilities, they frequently display problems in one or more of the following: reading, writing, mathematics, memory, organization, or sustaining attention. Because of their dual set of seemingly contradictory characteristics, gifted learning-disabled students may develop feelings of depression and inadequacy and consequently may demonstrate acting-out behaviors to disguise their feelings of low self-esteem and diminished academic self-efficacy.

NAGC recognizes three types of students who could be identified as gifted learning disabled: (1) identified gifted students who have subtle learning disabilities, (2) students with a learning disability but whose gift has not been identified, and (3) unidentified students whose gifts and disabilities may be masked by average school achievement. School policies concerning identification and entitlement to specialized educational services can contribute to the under identification and inappropriate programming for these youngsters. Given that gifted learning disabled students do not necessarily perform below grade level, discrepancy analysis should be based on their potential compared to their classroom performance. Student assessment must include consideration for the time these youth require to complete tasks; the support needed from others to complete each task; and the level at which the student can fairly be predicted to achieve based on measures of potential.

Identifying students' abilities and gifts should be based neither on classroom performance nor on total test scores in achievement or intelligence. Rather, to identify students' gifts, schools should analyze individual subtest scores and patterns on tests of intelligence as well as emphasize authentic assessment of talent within specific domains using student products, auditions, and interviews.

Students who have both gifts and learning disabilities require a dually differentiated program: one that nurtures their gifts and talents while accommodating for learning weaknesses. Being dually classified

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is often key to students' receiving appropriate services. A comprehensive program will include: provisions for the identification and the development of talent; a learning environment that values diversity and individual talents in all domains; educational support that develops compensatory strategies including the appropriate use of technology; and school-based counseling to enhance students' ability to cope with their mix of talents and disabilities. Without appropriate identification and services, the gifts of these students may never be developed.

Approved 11/98

MEETING THE NEEDS OF HIGH-ABILITY AND HIGH-POTENTIAL LEARNERS IN THE MIDDLE GRADES
A JOINT POSITION STATEMENT OF THE NATIONAL MIDDLE SCHOOL ASSOCIATION AND THE NATIONAL ASSOCIATION FOR GIFTED CHILDREN

The National Association for Gifted Children and the National Middle School Association share a commitment to developing schools and classrooms in which both equity and excellence are persistent goals for each learner. Equity refers to the opportunity of every learner to have supported access to the highest possible quality education. Excellence refers to the need of every learner for opportunities and adult support necessary to maximize his or her learning potential.

Early adolescence is generally described as the time between ages 10 and 15. During this developmental span, young adolescents experience a wide range of growth rates in cognitive, physical, social, emotional, and moral dimensions. Change in young adolescents can be rapid and uneven. In addition to the diversity of development implicit in early adolescence, middle schools also reflect diversity in student gender, culture, experience, economic status, interests, and learning preferences. Every middle school classroom also represents a wide array of talents.

In light of the inevitable variance in middle school populations, it is critical that middle school educators develop increasing awareness of and skill necessary to address the full range of learner needs—including needs of those who already demonstrate advanced academic abilities and those who have the potential to work at advanced levels.

High-ability adolescents may differ from fellow classmates in cognitive skills, interests, modes of learning, and motivation. As a result, their educational needs may also differ in some important ways from those of other young adolescents. Attending to those needs requires informed attention to both equity and excellence in all facets of schooling.

IDENTIFICATION
All middle school learners need educators who consistently use both formal and informal means of recognizing their particular strengths and needs. In regard to advanced learners, identification requires specific plans to seek out students with advanced abilities or advanced potential in order to provide appropriate educational experiences during the transition into adolescence. Both the National Middle School Association and the National Association for Gifted Children share a strong commitment to appropriate use of multiple approaches to identify high potential in students from minority and low economic groups. Identification of high performance and potential are precursors to helping young adolescents maximize their potential during these critical years. Identification of student performance and potential should be followed by educational planning to maximize the potential.

ASSESSMENT
Ongoing assessment is critical to informing classroom practice. Preassessment, in-process assessments, and post assessments should give learners consistent opportunity to demonstrate their knowledge, understanding, and skill related to topics of study. Assessments related to student readiness, interests, perspectives, and learning preferences provide educators with a consistently emerging understanding of each learner's needs in the classroom. Middle level educators should use data from such assessments to modify teaching and learning plans to ensure that each student—including those who already perform well beyond expectations—have consistent opportunities to extend their abilities.

CURRICULUM AND INSTRUCTION
Equity in the middle grades requires that all learners have an opportunity to participate in curriculum that is rich in meaning and focused on thought and application. Excellence requires support necessary to show continual growth in knowledge, understanding, and skill. Advanced middle grade learners thus require consistent opportunities to work at degrees of challenge somewhat beyond their particular

readiness levels, with support necessary to achieve at the new levels of proficiency. In addition, educators should address student interests and preferred modes of learning in planning curriculum and instruction that is appropriately challenging for individual learners. Educational resources should be of a sufficient range of complexity to ensure challenge for advanced learners. Flexible pacing and flexible grouping arrangements are important instructional adjustments for many highly able middle level learners. Because of the inevitable variance among high-ability learners, advanced learners, like other middle school students, need curriculum and instruction proactively designed to accommodate their particular needs.

AFFECTIVE DEVELOPMENT

Critical to healthy development in the middle grade years is development of positive student affect. Students benefit greatly from learning environments that reinforce their worth as individuals and simultaneously support them in becoming more powerful and productive. For advanced learners, this may require helping students affirm both their abilities and their need to belong to a peer group. Middle level educators need to understand and address the unique dynamics that high-ability and high-potential young adolescents may experience as they seek to define themselves and their roles among peers.

EFFECTIVE PARTNERSHIPS

Building a middle school culture that supports equity and excellence for each learner requires sustained attention to partnerships among all adults key to the student's development. This includes partnerships between home and school, specialists and generalists, and teachers and administrators. Middle level schools should assist parents in recognizing, understanding, and nurturing advanced abilities and potential in young adolescents. Partnerships among team members and between classroom teachers and gifted education specialists should ensure appropriate challenge for advanced learners and appropriate attention to the particular talents of advanced learners. Administrator/teacher partnerships should define what it means to accommodate the individual needs of learners and develop conditions that lead to such accommodations for all middle level learners—including those who demonstrate advanced performance or potential.

PRE-SERVICE AND IN-SERVICE STAFF DEVELOPMENT

To ensure equity and excellence in the middle grades, teachers must be adequately prepared to provide academically rich instruction for all students and to teach in ways that enable all students to work at appropriate and escalating levels of challenge. Teachers with training in gifted education are more likely to foster high-level thinking, allow for greater student expression, consider individual variance in their teaching, and understand how to provide high-end challenge. Appropriate staff development for middle level teachers will continually focus on high-quality curriculum, understanding and teaching in response to individual as well as group needs, and developing a repertoire of instructional strategies that support and manage flexible classrooms. Central to the success of these endeavors is shared responsibility for meeting the needs of each learner, evidenced in systematic and consistent planning, carrying out of plans, and evaluation of effectiveness of plans in terms of individual learners and small groups of learners as well as the class as a whole.

With these shared beliefs, the National Association for Gifted Children and the National Middle School Association call on middle level educators to adopt and support processes and actions that ensure developmentally appropriate practices for the full range of students they serve.

A Call to Action

The National Association for Gifted Children and the National Middle School Association urge administrators, teachers, gifted education specialists, school support personnel, parents, and students to collaborate for the purpose of ensuring equity and excellence for all learners, including those with advanced performance or potential.

District and School Leaders Should:

1. Provide leadership in creating a school climate that vigorously supports both equity and excellence.
2. Ensure that teachers have meaningful knowledge and understanding about the needs of gifted adolescents, including training in differentiated instruction so that the needs of all students—including those with advanced performance or potential—are appropriately addressed.
3. Develop and implement an appropriate and flexible system for identifying high-ability learners from diverse populations.
4. Use organizational structures such as teaming and advisory programs to ensure that needs of young adolescents, including high-ability young adolescents, are central in instructional planning.
5. Encourage consistent collaboration among all teachers and support personnel in the school to ensure appropriate services for high-ability learners.
6. Ensure a continuum of services including options such as differentiation, advanced classes, acceleration, short-term seminars, independent studies, mentorships, and other learning opportunities matched to the varied needs of high-potential and high-ability learners.
7. Provide counseling-related services for students with advanced academic performance or potential.
8. Develop and maintain a written plan to guide educational planning for advanced learners and to inform the community of those plans.
9. Regularly evaluate the effectiveness of curriculum, instruction, resources, and other services in supporting the development of high-ability learners.

Teachers, Gifted Education Specialists, and Support Personnel Should:

1. Be knowledgeable about students with advanced academic abilities and those who have the potential to work at advanced levels.
2. Meet regularly to discuss the needs of all students, including those with high ability.
3. Provide curriculum, instruction, and other opportunities to meet the needs of students with high ability.
4. Use a variety of developmentally appropriate instructional practices to enable each student to experience a high degree of personal excellence.
5. Collaborate with colleagues at elementary and high school levels to ensure a smooth transition as students progress throughout the grades.
6. Keep parents informed about their children's growth and invite parent participation in educational planning for their children.

Parents Should:

1. Strengthen family connections with young adolescents.
2. Be knowledgeable about the needs and concerns of young, gifted adolescents.
3. Understand and contribute to the district's plan for identifying and serving high-ability learners.
4. Help their children take appropriate responsibility for their own learning and develop related skills and attitudes of responsible independence.
5. Collaborate with the school to ensure that their children's needs are being met.
6. Be their children's best advocates.

Appendix: Glossary

Advanced by Design
REACH-Out and Nurture

Glossary

Advanced Learning Plan (ALP) – Also called a Personalized Learning Plan (PLP) or Developmental Learning Plan (DLP). This is a plan developed usually at the school level for a GT student that includes a variety of information such as: academic strengths and areas of concern, affective needs, assessment information, programming needs and experiences, as well as individual learning goals, objectives, and measures. The ALP is usually written with input from all stakeholders within the student's support system.

Advanced Placement Classes – College level classes taught in many high schools by qualified teachers. Students take rigorous AP exams usually in May or June. If they successfully complete the class and score well on the exams they are able to earn college credits or take higher level courses when attending college.

Affective Needs – A term used to describe the social, emotional, and behavioral needs of gifted students.

Ascending Intellectual Demand – A term used to define the match between escalating the learner and the curriculum in more advanced knowledge, understanding, and skill in a content area. As students become more advanced, task "demand" will need to escalate to ensure ongoing challenge for that learner.

Compacting – A differentiation strategy which permits students who exhibit prior knowledge or demonstrate mastery of the objective via preassessment to move at an accelerated pace through specific material.

Cognition – The mental faculty or process of acquiring knowledge by the use of reasoning, intuition or perception.

Creative Thinking – A novel way of seeing or doing things characterized by four components – FLUENCY (generating many ideas), FLEXIBILITY (shifting perspective easily), ORIGINALITY (conceiving of something new), and ELABORATION (building on other ideas).

Creativity – A mental process by which an individual imagines or creates new ideas or products, or recombines existing ideas and products in a new way.

Critical Thinking – A process of determining the authenticity, accuracy, or value of something; characterized by the ability to seek reasons and alternatives, perceive the total situation, and change one's view based on evidence. Also called "logical" thinking and "analytical" thinking.

Cubing – A teaching strategy designed to help students think about a topic or idea from many different angles.

Facilitated Independent Study – A method for encouraging and supporting students in studying topics of interest or in developing talent areas that may or may not be directly related to what their classmates are learning. The teacher and student (or small group of students) work together to design an area of study, narrow it down to a specific topic of interest, and identify the learner outcomes, resources, a timeline, and a final product to demonstrate learning.

Independent Study – A range of strategies in which students assume major roles in: selecting topics or questions to be investigated; designing plans, procedures, and products for the investigation; establishing and employing criteria for assessing the effectiveness of both the investigation and its end product; conducting the investigation; and sharing its findings. Independent studies allow students to pursue topics of interest in a direction or depth which is not suitable for or likely to be pursued by the class as a whole.

International Baccalaureate Program (IB) – This program is designed to bring a common curriculum to multinational students living in countries throughout the world. The underlying philosophy is to develop the whole student with challenging and in-depth learning experiences through general and comprehensive curriculum at the precollegiate level that is pitched at the first-year university level.

Iowa Acceleration Scale – An instrument that provides a systematic and thorough method of decision making for educators and parents who are considering whole-grade acceleration for students in kindergarten through 8th grade.

Learner Profile – An instrument created for individual students by collecting data regarding student achievement, interests, abilities, and learning styles. Often used as part of the Body of Evidence to determine gifted programming needs (see Advanced Learning Plan).

Learning Centers – Classroom areas that contain a collection of activities or materials designed to teach, reinforce, or extend a particular skill or concept. Learning centers can be used to differentiate content, process, and/or products in relation to a particular skill or concept.

Learning Contract – An agreement between a teacher and student(s). The teacher allows a certain amount of autonomy and choice in exchange for a student's agreement to design and complete work as the contract specifies. Learning contracts can be used to eliminate repetitious work and to provide challenging and enriching work based on the readiness of the student or group of students.

Learning Modalities – All learners have a dominant learning modality, such as auditory, visual, or kinesthetic. Students learn best when material is provided for them that addresses their strongest learning modality.

Looping – The practice of having a teacher move up and then back down a grade level. A teacher of a 2nd grade class may move up to a 3rd grade class with the same students the next year.

Metacognition – The process of planning, assessing, and monitoring one's own thinking, which is considered the pinnacle of mental functioning.

Multicultural Education – Culturally responsive education respects diversity while teaching all children to become effective and participating members of a democracy. It respects individuality while promoting respect for others. It emphasizes the contributions of the various groups (e.g., ethnic, gender, religious, sexual orientation, etc.) that make up the population of the world.

Parallel Curriculum – A specific model for developing curriculum. There are four parallels from which curriculum design is approached in this model – "Core Curriculum," "Curriculum of

Connections," "Curriculum of Practice," and "Curriculum of Identity." Teachers use any one or combination of these parallels as a framework for thinking about and planning curriculum.

Preventive Counseling – A developmental approach to guidance and counseling that is concerned with the ongoing growth of the child.

Self-concept – Internal beliefs and attitudes one holds in terms of personal attributes and the roles which are played or fulfilled by the individual.

Self-esteem – Feelings about oneself in regard to personal satisfaction with roles and/or the quality of performance.

Service Learning – A method of teaching, learning, and reflecting that combines academic classroom curriculum with meaningful community service.

Simulation – A teaching model used to provide students with real life situations or problems using a variety of assigned roles, situations, and possible outcomes.

Telescoping Curricula – The student spends less time than usual in a course of study (e.g., completes a 1-year course in a semester or completes high school in 3 years instead of 4).

Thinking Skills – Basic and advanced skills and sub-skills that govern a person's mental processes. These skills consist of knowledge, dispositions, and cognitive and metacognitive operations.

Tiered Assignments – Tiered assignments are used to differentiate instruction for the wide range of student readiness in a heterogeneous classroom.

Twice-Exceptional – The gifted learning-disabled student who exhibits remarkable talents or strengths in some areas and disabling weaknesses in others. These include: identified gifted students who have subtle learning disabilities, unidentified students, and identified learning-disabled students who are also gifted.