



### The Challenge

- Rates of identification for gifted programs among students from traditionally underserved populations
- Need for approaches that support finding high potential across demographic groups
- Need for approaches that provide students with supports to prepare for the challenges of advanced programs
- Recommendations around early intervention, yet limited programming













### Long Term

To *nurture* high academic potential at an early age so that students who have historically been underserved in advanced academic programs will be prepared to engage in challenging subject matter and rigorous courses in upper elementary school, middle school, and high school.

### Project SPARK: Supporting and Promoting Advanced Readiness in Kids

• Focus on **early awareness/identification/ intervention** to support high **potential** 

Gifted and Talented Students Education Grant Program, PR/Award Number S206A140017, as administered by the OESE, U.S.

- Emphasis at grades K-2 in schools with high populations from underserved groups
- Application/scaling up of the Young Scholars Model in 4 Connecticut school districts
  - Access to advanced learning opportunities
  - Affirmation of high academic potential
  - Advocates for students

### <section-header><section-header><list-item><list-item><list-item>



- Advanced potential exists across demographic groups.
- Early attention to high potential is critical for engaging student growth and academic success.
- Teacher support and opportunities for teacher learning in classroom settings are important to guide recognition of how high potential may manifest in students across diverse backgrounds.
- Curriculum and instruction designed to yield and develop high potential behaviors are valuable tools for identification and programming in response to advanced learner needs.





# <section-header><section-header><list-item><list-item><list-item><list-item><list-item><table-container>

### GBRS

Contains 4 categories:

- Exceptional Ability to Learn
- Exceptional Application of Knowledge
- Exceptional Creative/Productive Thinking
- Exceptional Motivation to Succeed



Gifted Behaviors Continuum Continuum of Intensity, Frequency, and Complexity of Demonstrated Behaviors								
Behavioral Areas	Emergent (1) Exploratory and discovery behaviors demonstrated sporadically or rarely.	Novice (2) Application behaviors observed occasionally; acquires and integrates knowledge.	Maturing (3) Analysis behaviors observed frequently; extends and refines learning.	Independent (4) Synthesis and evaluative behaviors observed consistently; uses knowledge meaning/ully.	GBRS Connections Student demonstrates exceptional:			
Perceptive	Recognizes basic patterns in the environment	Applies understanding of similarities and differences	Seeks and examines novel patterns and relationships	Transfers patterns and relationships to new situations; looks beyond the obvious to notice verbal and nonverbal subteties	Ability to Learn Memory In-depth knowledge Persistent/Intense focus Sensitivity to environment			
Strategic	Employs learned thinking strategies to solve proklems	Investigates alternative solutions to problems	Analyzes situations, searches for additional information, and diligently works to find solutions to problems	Analyzes and researches potential solutions, tests theories, and verifies multiple conclusions to complex problems	Ability to adapt to new cultures     Ability to learn quicktyleasily     Acquisition of a new language     Ability to independently make connections			
Communicative	Expresses ideas simply but clearly	Expands on ideas and provides additional information	Expands on ideas, compares and contrasts, and gives examples	Initiates and elaborates on complex ideas; providing examples, counter- examples, and inferred characteristics	Application of Knowledge • Reasoning skills • Problem solving strategies • Ability to interpret symbols • Understanding of abstract concepts			
Resourceful	Recognizes and uses available resources to complete a task	Completes tasks using available resources in a traditional manner	Adapts resources to use in a new and different way	Draws from experiences and transfers understandings to new situations; inventive	Technology skills     Ability to transfer learning to other situations     Communication through the arts			
Creative	Explores ideas and materials freely	Expands on ideas and adds details	Uses fluency and flexibility to view ideas in new and unusual ways	Demonstrates innovative ideas to show new relationships and uses	Creative/Productive Thinking See the familiar in unusual ways Ability to think independently of peers			
Curious	Asks questions on topics of interest	Demonstrates curiosity and actively seeks new ideas	Asks deep questions to initiate investigation and meaningful dialogue	Asks complex questions to explore, test, and evaluate sustained investigations	Inventive skills Fluency and feability in thinking Expression of ideas, feelings, and beliefs Sense of humor Generation of new ideas Ability to perceive and manipulate patterns			
Leadership	Interacts effectively with others on assigned tasks	Initiates ideas and is sensitive to the contributions of others	Refines and extends the idea of others to build and foster the talents of a group	Organizes groups in various settings to implement plans of action, seeing complex tasks through to completion	Motivation to Succeed • Ability to lead groups • Ability to meet personal and academic challenges • Independent exploration/research skills • Adult conversation skills and poise			
Resilient	Remains on task when faced with a difficult task	Demonstrates ability to work through difficult times in and out of the school environment	Recovers quickly from environmental and personal challenges	Exudes strength in times of personal hardship and maintains integrity	Sense of loyalty     Adaptation skills     High standards in areas of strength and interest     Initiative. self-direction, and confidence			

### Ratings

Each category is assigned a rating based on how often behaviors are observed:

- 1 Rarely
- 2 Occasionally
- **3** Frequently
- 4 Consistently

Note that only whole numbers from 1-4 are used, no fractions or decimals.











**Table 3.** TOPS Domains with Examples of Specific Observable Behaviors.

Domain	Teacher-pleasing example	Non-teacher-pleasing example	
Learns easily	Retains and retrieves information easily	Corrects the teacher and students in class	
Shows advanced skills	Has a large vocabulary	Manipulates situations for specific purposes	
Displays curiosity and creativity	Questions, explores, experiments	Refuses to follow rules unless he sees "why"	
Has strong interests	Demonstrates unusual or advanced interests	Resists transitions and moving onto new topics of study	
Shows advanced reasoning and problem solving	Is a keen observer (spots details others miss)	ls argumentative	
Displays spatial abilities	Figures out why and how things work	Moves around often (keeps hands and body always busy)	
Shows motivation	ls a self-starter (requires little direction)	Questions authority (is considered a "trouble maker" or instigator)	
Shows social perceptiveness	Enjoys working in groups	Uses humor and sarcasm inappropriately	
Displays leadership	Accepts and carries out responsibilities	Is seen as "bossy" (wants to be the center of attention)	

Note. Adapted with permission from Coleman, M. R., Shah-Coltrane, S., & Harrison, A. (2010). Teacher's observation of potential in students: Individual student form. Arlington, VA: Council for Exceptional Children.













### SPARK Summer Program

- Project M2 units
  - 2015 and 2017: Geometry
  - 2016: Measurement (+ pilot of Number)
  - 2018: Number (+ Geometry at K)
- Professional development for teachers
- 3-4 weeks, 3 hours per day
- 4 districts, 5 schools, ~16 classrooms per year
- Cross-age grouping

### Summer Program Resources – Project M<sup>2</sup>

Key Project M <sup>2</sup> Characteristics (Gavin et al., 2013)	Alignment with Emphases in Culturally Responsive Teaching (Gay, 2010, 2015)
Important and advanced mathematics	High-quality, high-status knowledge made available to students from all backgrounds
Depth of understanding and complexity	Access to and support for engaging with complex instructional materials
Differentiated instruction	"Diversity among students demands plurality in instructional practices" (Gay, 2015, p. 135)
Mathematical communication	Specific modeling and practice around communication
Nurturing classroom environment	Emphasis on story; emphasis on positive beliefs and support

### Summer Teachers Who Also Teach K-2 in Treatment Schools

District	Summer 2015	Summer 2016	Summer 2017	Summer 2018
1	3/3	3/4	3/5	4/5
2	2/3	3/4	4/4	5/5
3	2/6	3/6	5/6	5/6
4	NA	1/4	1/3	1/3

Priority for summer hiring given to K-2 teachers from treatment schools







## <section-header><section-header><section-header><section-header><section-header><section-header>



- Role of curriculum in supporting access for learners as well as teacher recognition of emerging potential
- Importance of specific supports for discourse moves among a diverse range of learners in the early grades
- Linkage to positive achievement outcomes for students following participation in high-level summer learning experiences
- Evidence of influence on later identification for advanced programs



