



Module 1

Overview of *U-STARS~PLUS*



*Mary Ruth Coleman, Beth Cross,
Rachel Vogelpohl, Shana Pendergrass
(with thanks to Sneha Shah-Coltrane)*

U-STARS~PLUS

© 2011 CEC

*Using Science, Talents, and Abilities to Recognize Students~
Promoting Learning for Underrepresented Students*

Science for the 21st Century

Passionate educators with issue expertise can make all the difference, enabling hands-on learning that truly engages students — including girls and underrepresented minorities — and preparing them to tackle the grand challenges of the 21st century such as increasing energy independence, improving people's health, protecting the environment, and strengthening national security.



-President Barack Obama, January 6, 2010

The purpose of *U-STARS~PLUS*

is to support teachers in the early recognition and nurturing of potential in children from economically disadvantaged and/or culturally/linguistically diverse families and in children with disabilities in order to provide them with access to advanced educational opportunities and to improve their academic achievement.



U-
STARS~PLUS

***U-STARS~PLUS* Goals**

. Provide environments which nurture the intellectual and emotional well-being of young children (Grades K–3).

. Recognize children with outstanding potential who may be overlooked due to poverty, cultural/linguistic differences, and/or disabilities.

. Engage families in meaningful ways that support their child's academic success.

. Support the use of high-quality science instruction for young children (Grades K–3) as a platform to recognize and respond to their potential.

. Respond to children's strengths by providing appropriately challenging and advanced educational experiences (high-end learning).

To appropriately recognize potential in students, these three things must be in place:

1. A teacher must know what to look for.

2. Classroom responses should support high-end learning.

3. The classroom climate should be emotionally supportive, so children will show us their best.

The Heart of *U-STARS~PLUS*

Bringing Out the Best in Student Potential



A Nurturing Classroom Environment supports students intellectually and emotionally

An intellectually nurturing environment provides:

- Challenge (high expectations, appropriate complexity)
- Choice (child's interests, self-determination)
- Changes (novelty, flexibility)

An emotionally nurturing environment is:

- Safe (respectful, understanding, validating, caring)
- Supportive (helpful, promotes positive “risk-taking”)
- Secure (child can be at ease)



***U-STARS~PLUS* Core Beliefs**

- 1. All children deserve access to challenging and enriching learning opportunities.**
- 2. All children deserve to be viewed as “at potential” versus “at risk.”**
- 3. Science is a naturally interesting and engaging subject that captivates young children’s learning.**
- 4. Family involvement is key to sustained support for children.**
- 5. The support we provide to a child’s teacher is critical to the success of the child.**





U-STAR~PLUS “The Big Star”

High-End Learning Opportunities



The nation must ensure that all children, especially economically disadvantaged and minority children, have access to an early childhood education that develops potential.

U.S. Department of Education. (1993). *National excellence: A case for developing America's talent*. Washington, DC: Author.



High-End Learning Environment Toolkit

(Strategies for differentiation in the general education classroom)

Curriculum compacting

Tiered activities

Learning centers/stations

Independent/small group contracts and projects

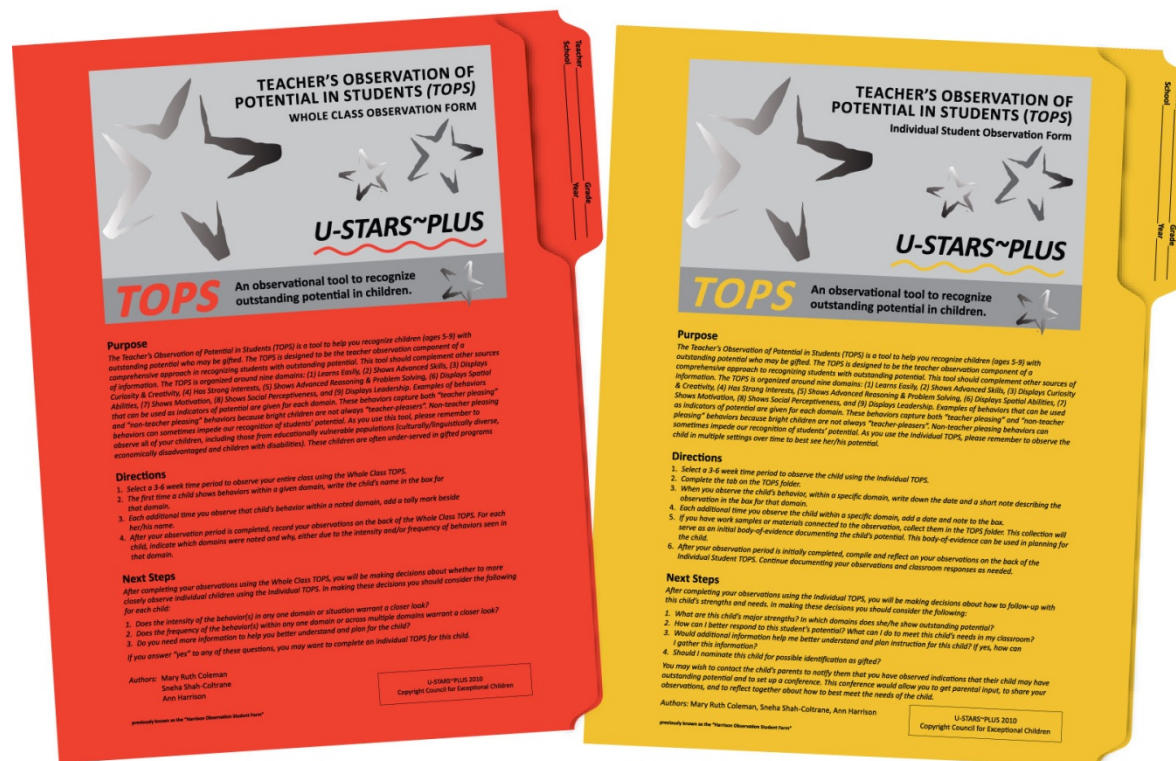
Effective questioning, higher order thinking



Systematic Teacher Observation

TOPS

(Teacher's Observation of Potential in Students)



“Be careful how you view the world: It is that way.”

(Johannes Kepler, 1571-1630)

= You get what you look for



Hands-On/Inquiry-Based Science



Captivates students' interest through real-world setting and content integration



Focuses on exploration and problem solving; not solely based on traditional expository methods/verbal skills

U-STARS~PLUS Science & Literature Connections

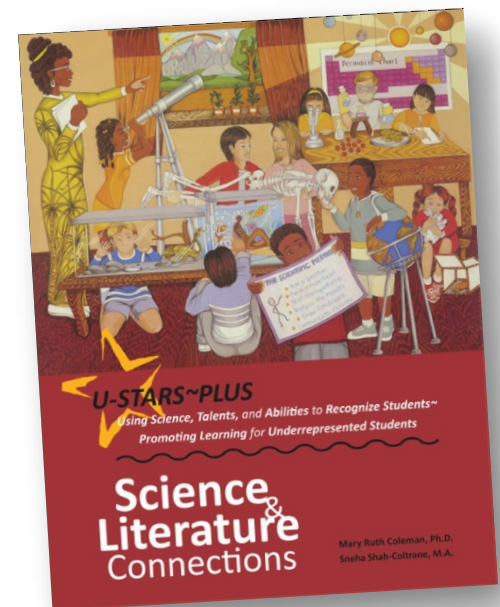
Bringing the interest of science to literacy studies

Book summaries (Grades K–3)

Concept maps

Discussion questions and activities based on Bloom's Taxonomy

Provides specific plans for using popular children's literature (*Cloudy With a Chance of Meatballs*, *Come On, Rain!*, *Make Way for Ducklings*, and over 25 others!)



Family and School Partnerships

Four large, empty, rounded rectangular boxes stacked vertically, intended for notes or discussion points.

U-STARS~PLUS Family Science Packets

Hands-on science activities intended to be used in conjunction with a unit of study

Teacher information includes:

Curriculum objectives

Process skill objectives

Materials needed

Pre- and follow-up activities

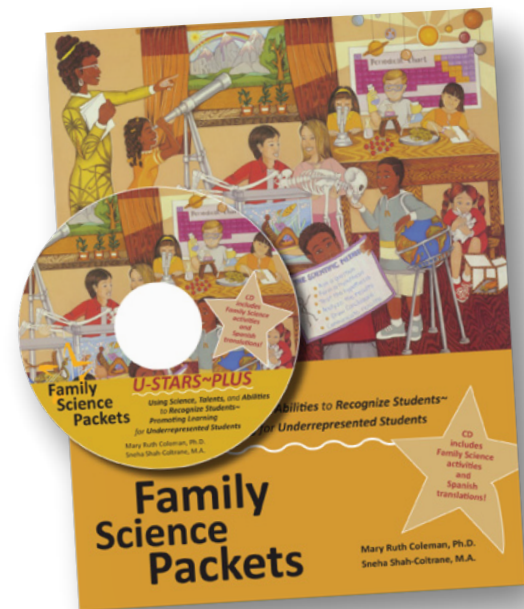
Student information,

sent home in a 1-gallon-size plastic bag:

Needed materials

Family information and guide

Observation record



**U-
STARS~PLUS**

Systemic Change



Fidelity of implementation (district, school, classroom)

Accountability (district, school, classroom, child)

Implementation Questions

Four empty rounded rectangular boxes stacked vertically, intended for writing answers to implementation questions.

Implementation Questions

Four empty rounded rectangular boxes stacked vertically, intended for writing answers to implementation questions.

Many children continue to have limited access to high-end nurturing opportunities in their schools.

Often the very children who need these opportunities the most receive the fewest.



***The U-STARS~PLUS approach
reduces disproportionality
while increasing access and
opportunity for all.***



We believe that address should not drive access.

All children deserve the opportunity to learn at the highest level possible.

