



ADAMS COUNTY SCHOOL DISTRICT 50

Ending Social Promotion and Retention via
a Learner-centered,
Standards-based System

Each child is
UNIQUE
Shouldn't education be?

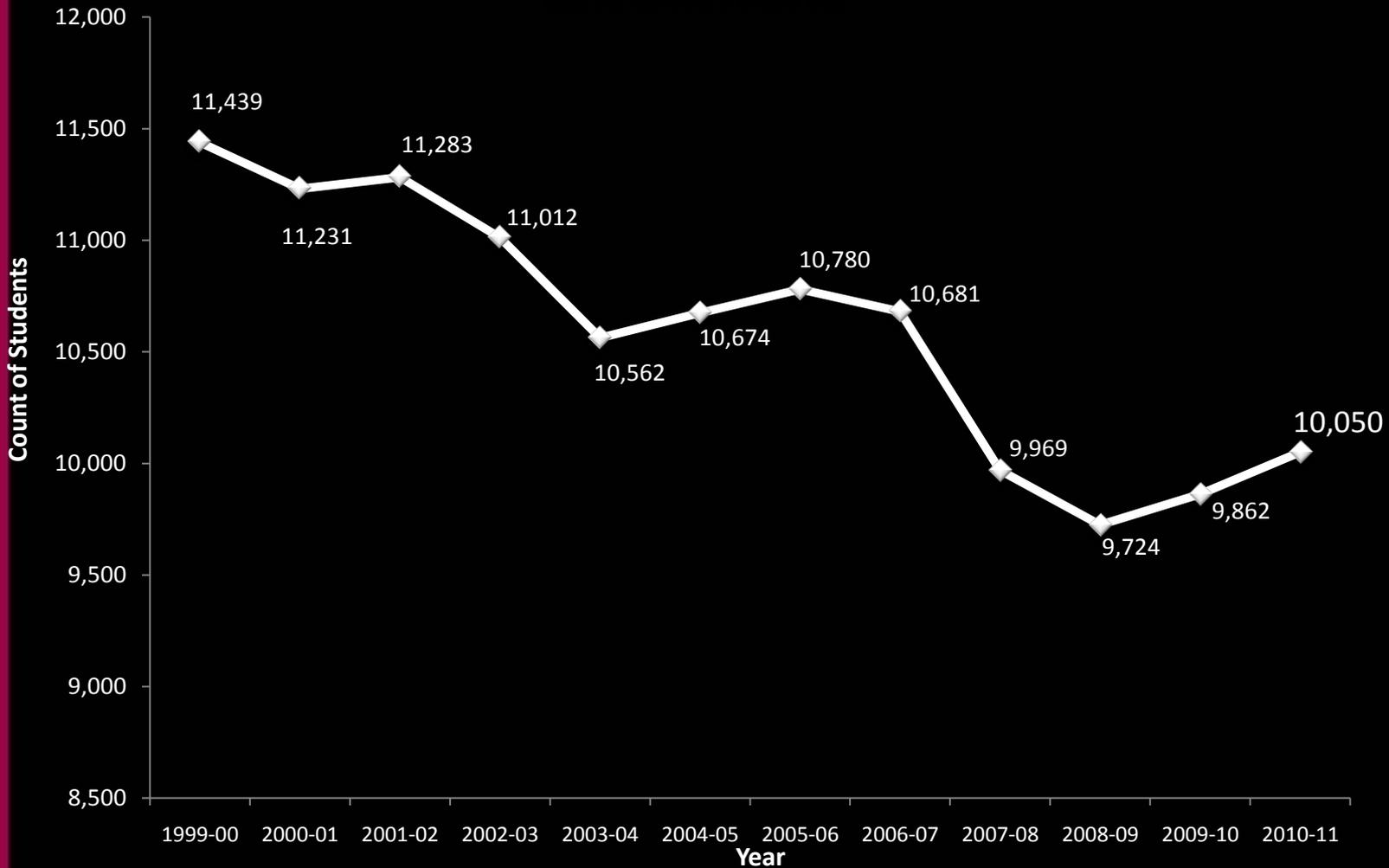
“Our Burning Platform”

- Placed on “Academic Watch” (Fall 2006)
 - Low static achievement
 - Persistent achievement gaps
 - Poor graduation rate
 - High post secondary remediation rate
- Increased demographic challenges
- Sought Comprehensive Appraisal for District Improvement (CADI)
- State conversations about 21st Century Learning
 - *SB07 -053 (Integrated P-16 Education System)*
 - *HB 07-1118 (HS Graduation Requirements)*
 - *SB 08-212 (CAP4K)*
- Moral Purpose **“Proficiency for ALL”**

Each child is
UNIQUE
Shouldn't education be?



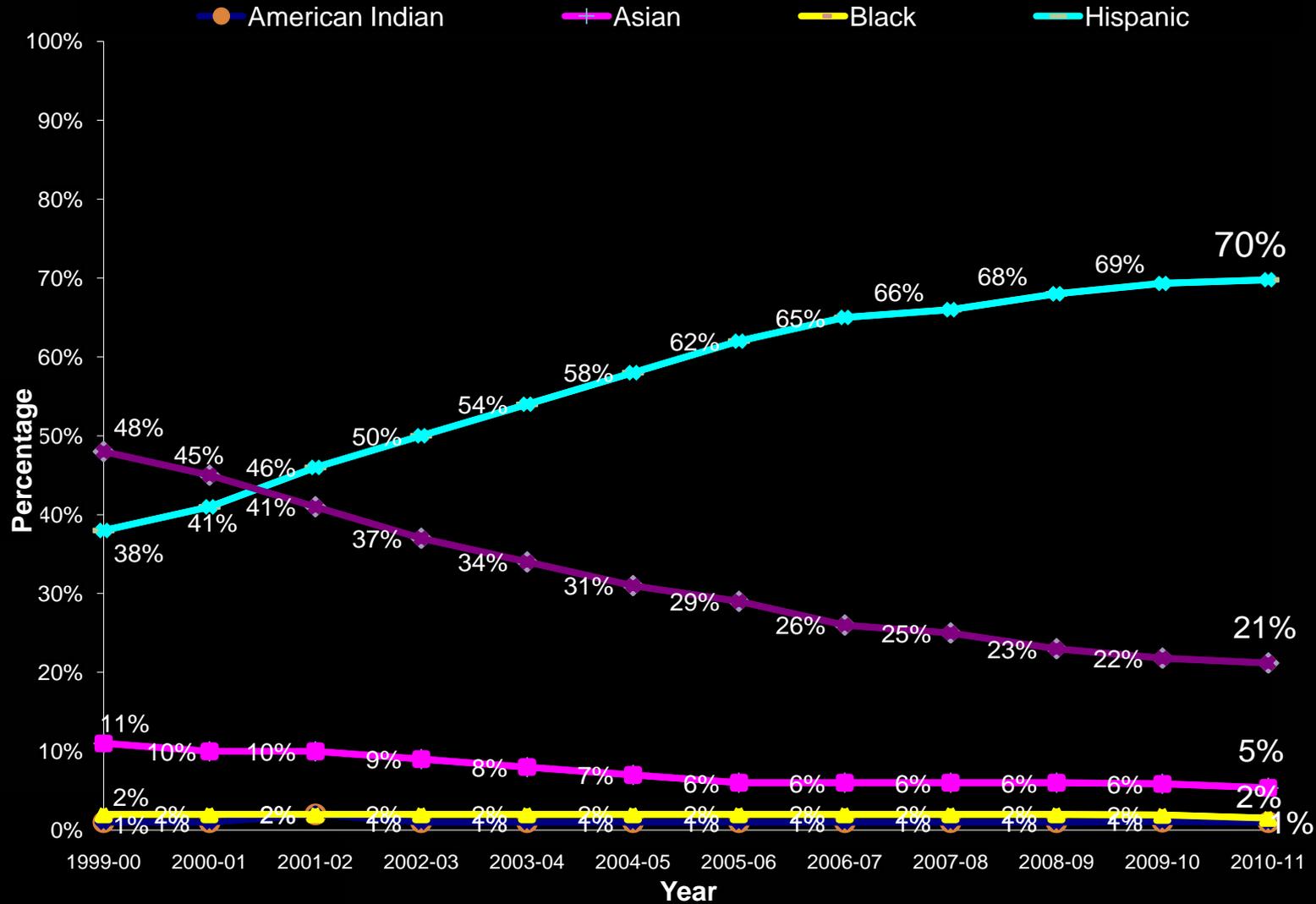
What do we mean by “Changing Demographics”?



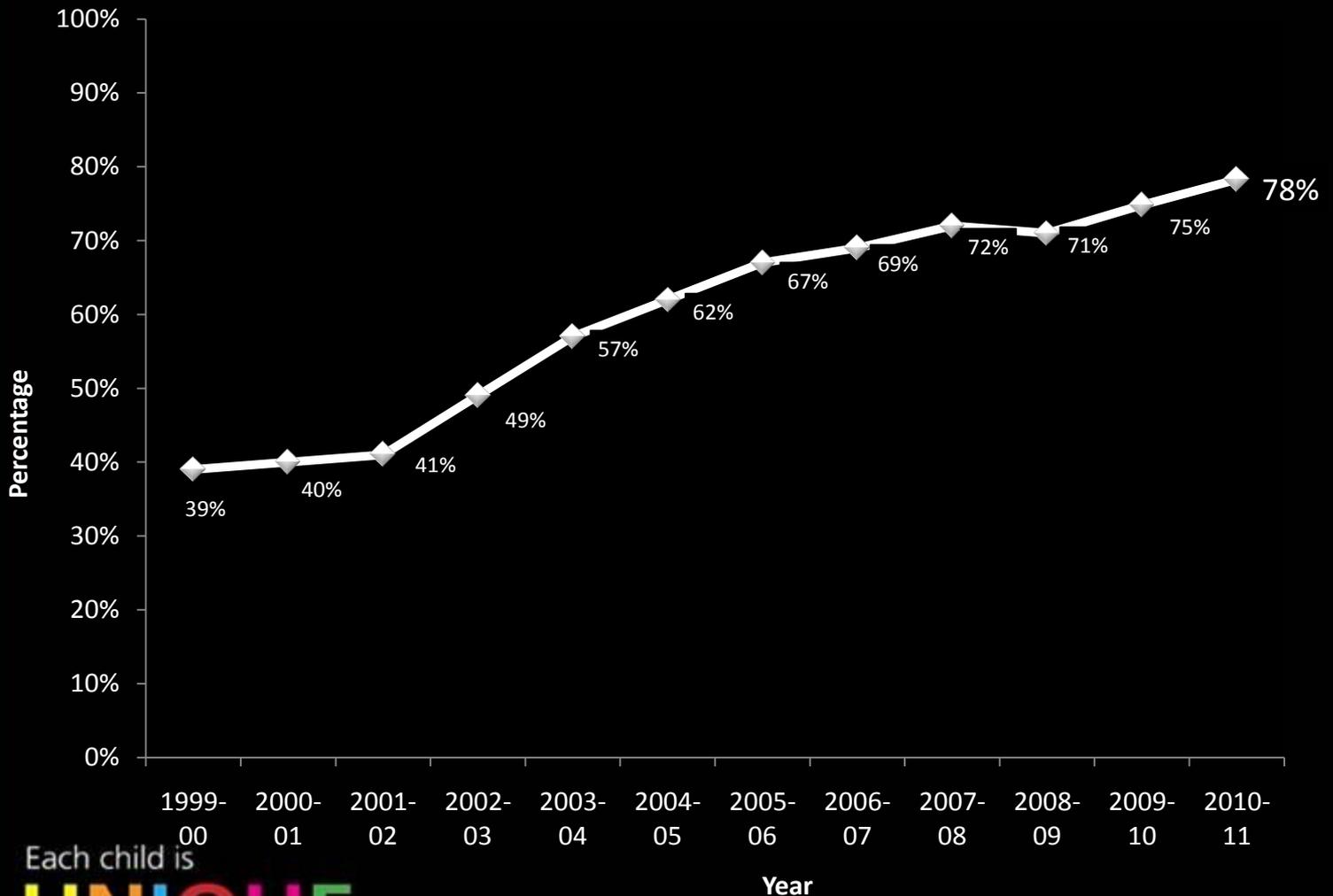
Each child is
UNIQUE
Shouldn't education be?



Changing Demographics - Ethnicity



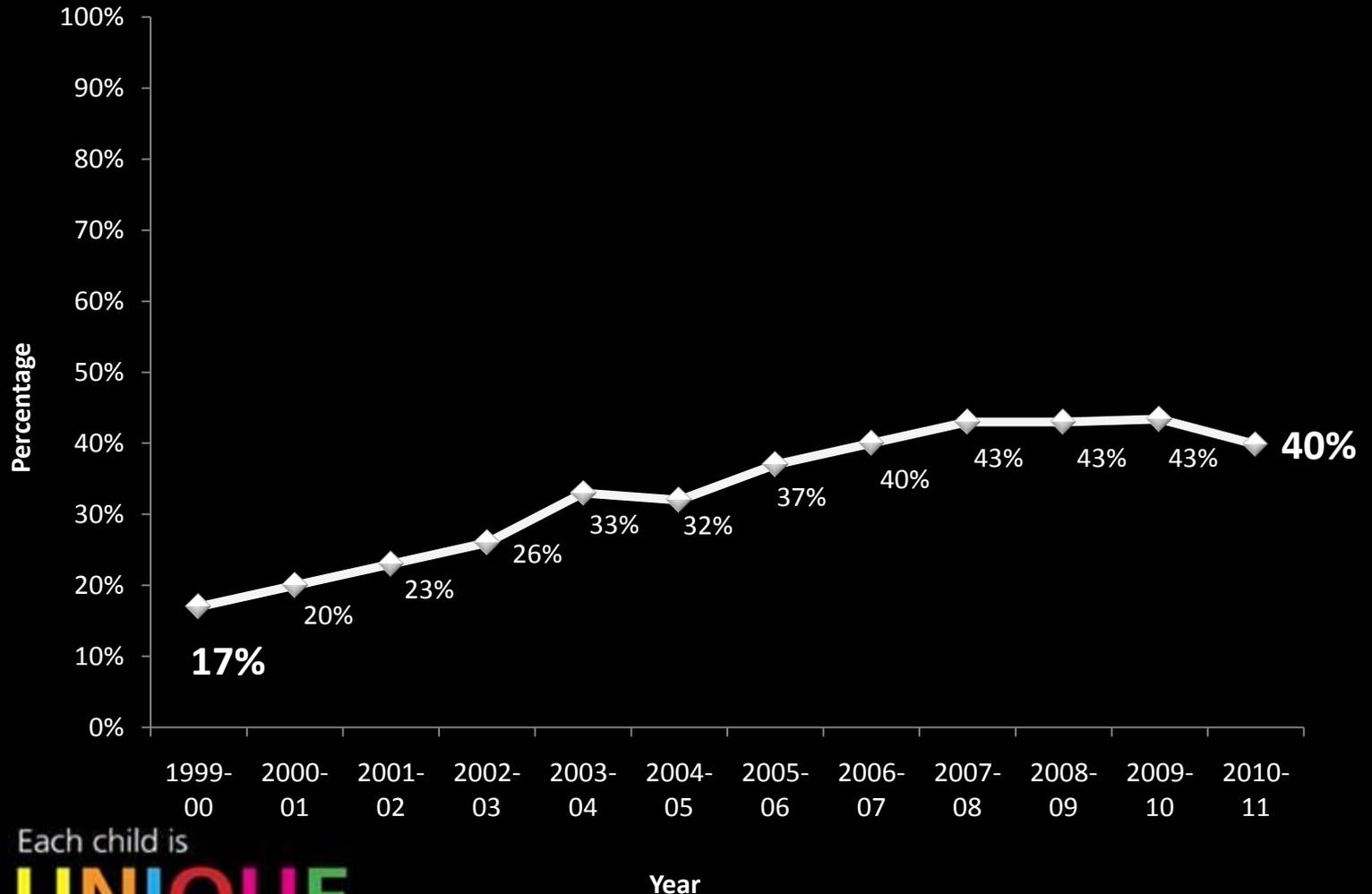
Changing Demographics - Free and Reduced Lunch Status



Each child is
UNIQUE
Shouldn't education be?



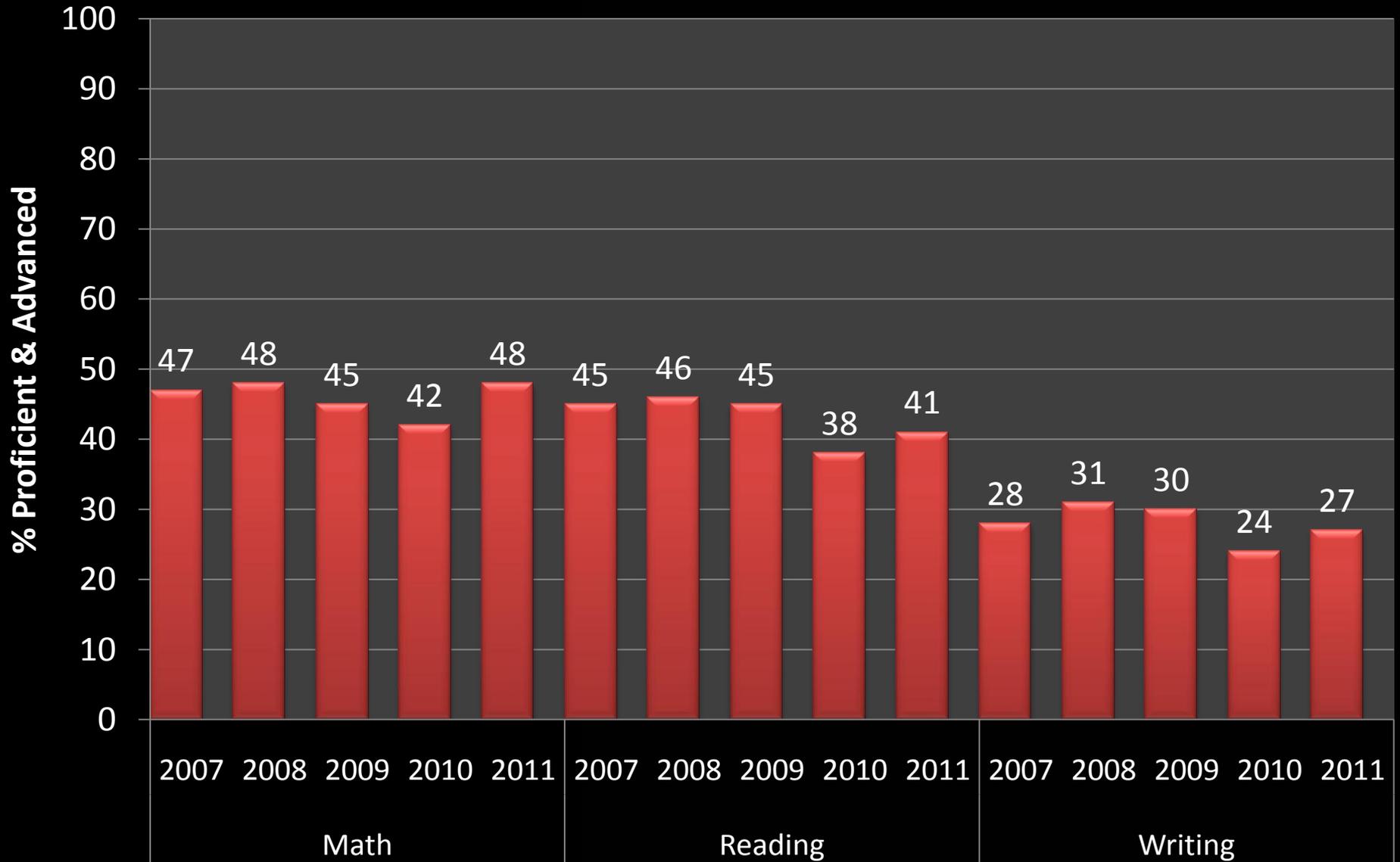
Changing Demographics - Second Language Learners



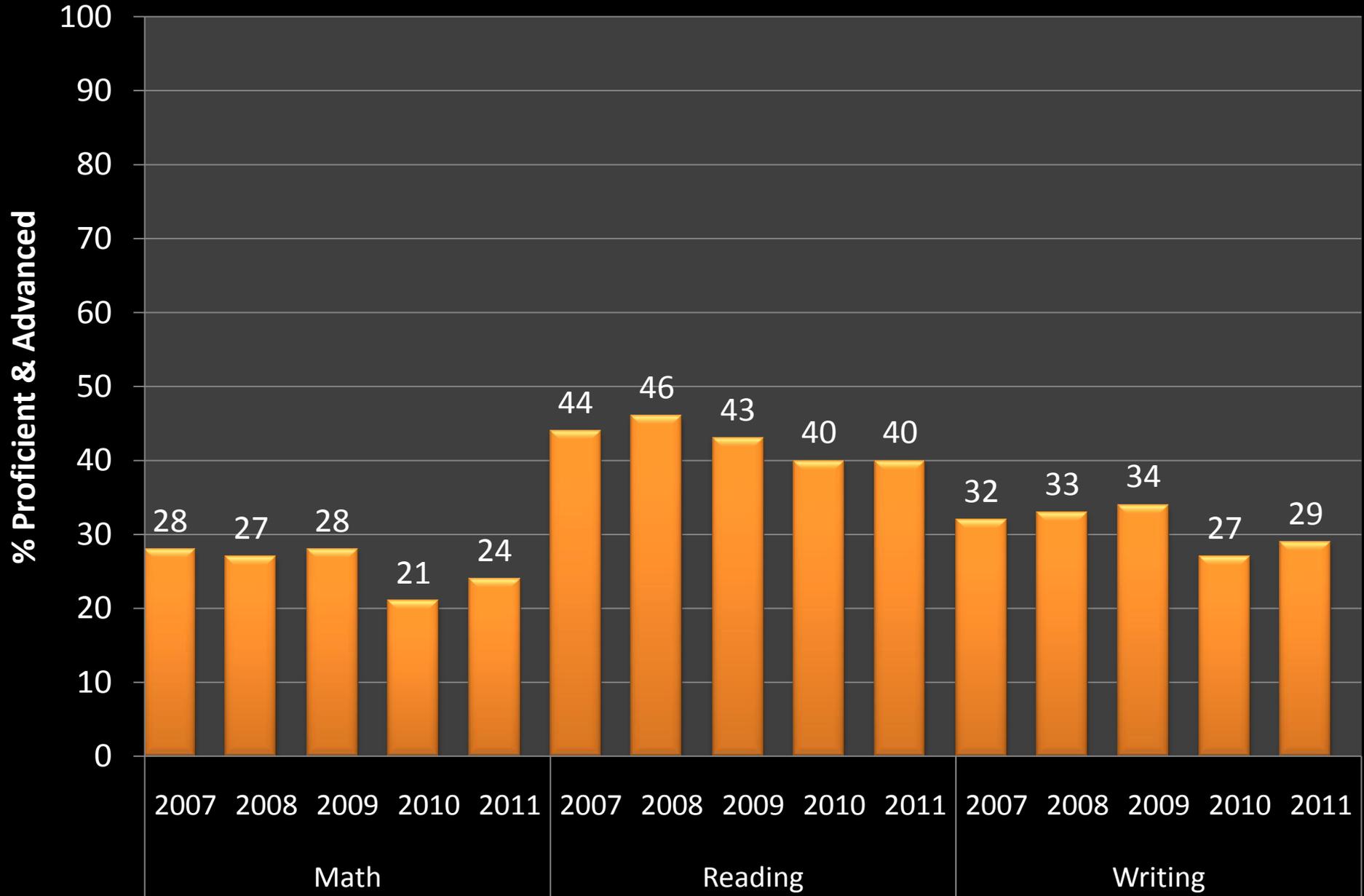
Each child is
UNIQUE
Shouldn't education be?



Student Achievement - Elementary School



Student Achievement - Middle School



What we needed...

- Systemic approach that ensured continuous rigorous learning and demonstrated performance (proficient or better) within and across all schools from the time our learners first entered preschool through graduation

Each child is
UNIQUE
Shouldn't education be?



Learning is the Constant

- All learners are placed at their instructional level in each of ten content areas based on demonstrated performance (proficient or better)
- Curriculum is “guaranteed and viable” where the Learning Targets (standards) and supporting materials are made explicit and available to teachers, students and parents
- Evidence toward proficiency for all Learning Targets is measured and tracked over time where the learner must score proficient or better prior to beginning the next Learning Target (or set of Targets)
- Evidence of learning is scored and reported on a proficiency scale from 1.0 through 4.0 (scoring guides, capacity matrices, educate)

Each child is
UNIQUE
Shouldn't education be?



Progression Chart

| Traditional Grade Level | PK | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|---------------------------------|---------------------------------|---------------------------------|------------------------------------|-----------------------------------|--------------------------------------|---|
| Math | Math LR + L1 | | Math L2 | Math L3 | Math L4 | Math L5 + L6 | Math L7 | Math L8 + L9 | Math L10 | AlGeo Concepts L11 | AlGeo-1 L12 | AlGeo 2 L13 | AlGeo 3 L14 | Math L15 |
| Literacy | Literacy LR + L1 | Literacy L2 | Literacy L3 | Literacy L4 | Literacy L5 | Literacy L6 | Literacy L7 | Literacy L8 | Literacy L9 | Literacy L10 | Literacy L11 | World Literature/ Composition L12 | American Literature/ Composition L13 | English Language/ Composition L14 + L15 |
| Science | Science LR | | Science L1 | Science L2 | Science L3 | Science L4 + L5 | | Science L6 + L7 | Science L8 + L9 | Science L10 + L11 | Chemistry/ Biology Structures L12 | Environmental Science L13 | Biology Chemistry Physics L14 | |
| Social Studies | Social Studies LR | | Social Studies L1 | Social Studies L2 | Social Studies L3 | Social Studies L4 | Social Studies L5 | Social Studies L6 + L7 | Social Studies L8 + L9 | Social Studies L10 + L11 | World Geography/ World History L12 | US History L13 | Government/ Civics L14 | |
| Technology | | Technology L1 | | Technology L2 + L3 | | Technology L4 | | Technology L5 | Technology L6 | Technology L7 | | | | |
| Visual Arts | Visual Arts LR | | Visual Arts L1 | | Visual Art L2 | | Visual Art L3 | Visual Art L4 | | | Visual Arts L5 + L6 + L7 | | | |
| Physical Education | Phys Ed LR | | Phys Ed L1 | Phys Ed L2 | Phys Ed L3 | | Phys Ed L4 + L5 | | Phys Ed L6 | Phys Ed L7 | | Phys Ed L8 | | |
| Personal Social | | Personal Social L1 | | | | | Personal Social L2 | | | Personal Social L3 | | | | |
| Performing Arts | Performing Arts LR | | Performing Arts L1 | Performing Arts L2 | Performing Arts L3 | | Performing Arts L4 | Band/ Orchestra/ Choir/Drama L5 | Band/ Orchestra/ Choir/Drama L6 | Band/ Orchestra/ Choir/Drama L7 | Band/ Orchestra/ Choir/Drama L8 | Band/ Orchestra/ Choir/Drama L9 | Band/ Orchestra/ Choir/Drama L10 | |
| World Language | | | | | | | | French Spanish L1 | | French Spanish L2 + L3 | | French Spanish L4 | French Spanish L5 | French Spanish L6 |
| Electives | | | | | | | | | | | | | | |

Clarification 1 – This progression chart is meant to provide an approximate correlation between student developmental abilities, estimated time to complete levels, and the number of years students have been enrolled in school.

Clarification 2 – Math, Literacy, and Science are correlated to the skills required for success on the CSAP and Standards-based Assessments.

Clarification 3 – Alignment in remaining content areas are meant to provide waypoints for pacing, not necessarily as indicators of the degree to which a student is functioning at an appropriate developmental level.

Clarification 4 – Post-secondary Performance Levels 15 and 16 are offered in Math, Literacy, Science, and Social Studies for accelerated students.

 – boxes indicate minimum proficiency levels for graduation in all content areas.

Time is the Variable

- Learners progress to the next Performance Level in a content area once proficiency or better has been achieved and validated. There are no traditional grade levels.
- Progression can occur at any point during the course of the school year for any content area.
- At the beginning of the school year, learners resume their learning at the point where they left off the previous year (continuous flow). There is no social promotion.
- Learners are typically in different performance levels for different content areas.
- Multiage classrooms are the norm not the exception.
- Blended learning opportunity with the Gates Foundation

Each child is
UNIQUE
Shouldn't education be?

Pacing

- Personalized learning with appropriate instruction for all students
- Multiple opportunities for students to demonstrate mastery of standards
- Learner's are able to accelerate their learning through goal setting, choice and voice
- Learner's learn at their own pace and are guided by the teacher (teacher pace or better)

Each child is
UNIQUE
Shouldn't education be?



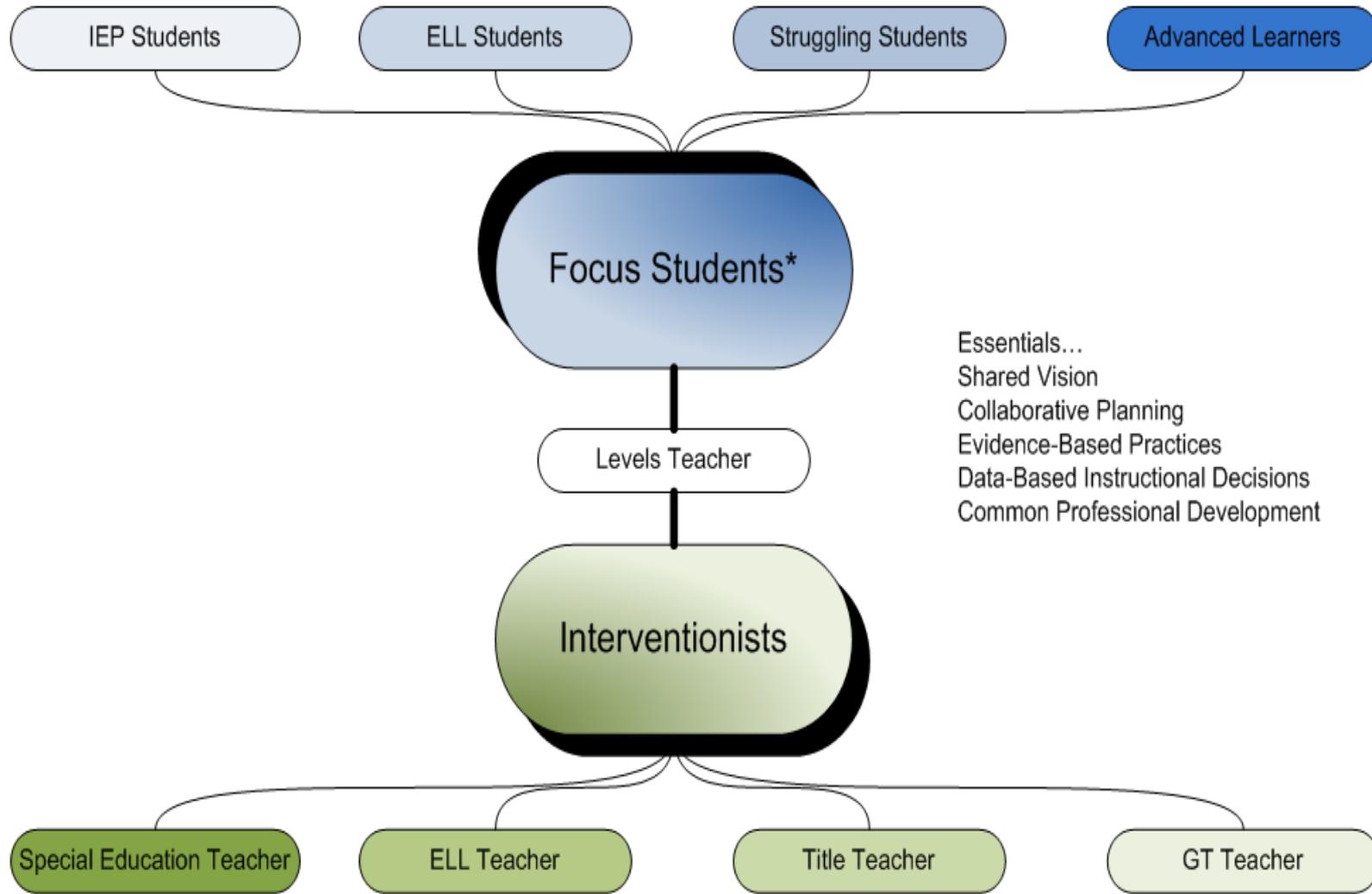
Pacing (Con'd)

- Support for “struggling learners” provided through the Blended Services Model. There is no retention.
- Recognition for demonstrated learning (celebrations)
- Data driven learning (assessment matters)
- Students progress purposefully at their own pace, based on demonstrating proficiency of the standards
- Students take more responsibility for their own learning

Each child is
UNIQUE
Shouldn't education be?

Adams County School District 50 Collaborative Services Among Interventionists

Collaboration, *not* Fragmentation



*Specific requirements for IEP, ELL, and Title I students will still apply (e.g., OCR mandates for ELL services, IEP development for Special Education students, etc.).

RESPONSE TO INTERVENTION & STANDARDS BASED EDUCATION

ADAMS COUNTY SCHOOL DISTRICT 50

Intensive Instructional Approaches

- 1-1 direct instruction
- Small group
- “specialized” instruction
- “Newcomer” classroom (ELLs new to U.S.)
- Part-time Levels teacher addressing intensive students
- First-language development
- Strengths-based instruction
- Progress monitoring

Targeted Instructional Approaches

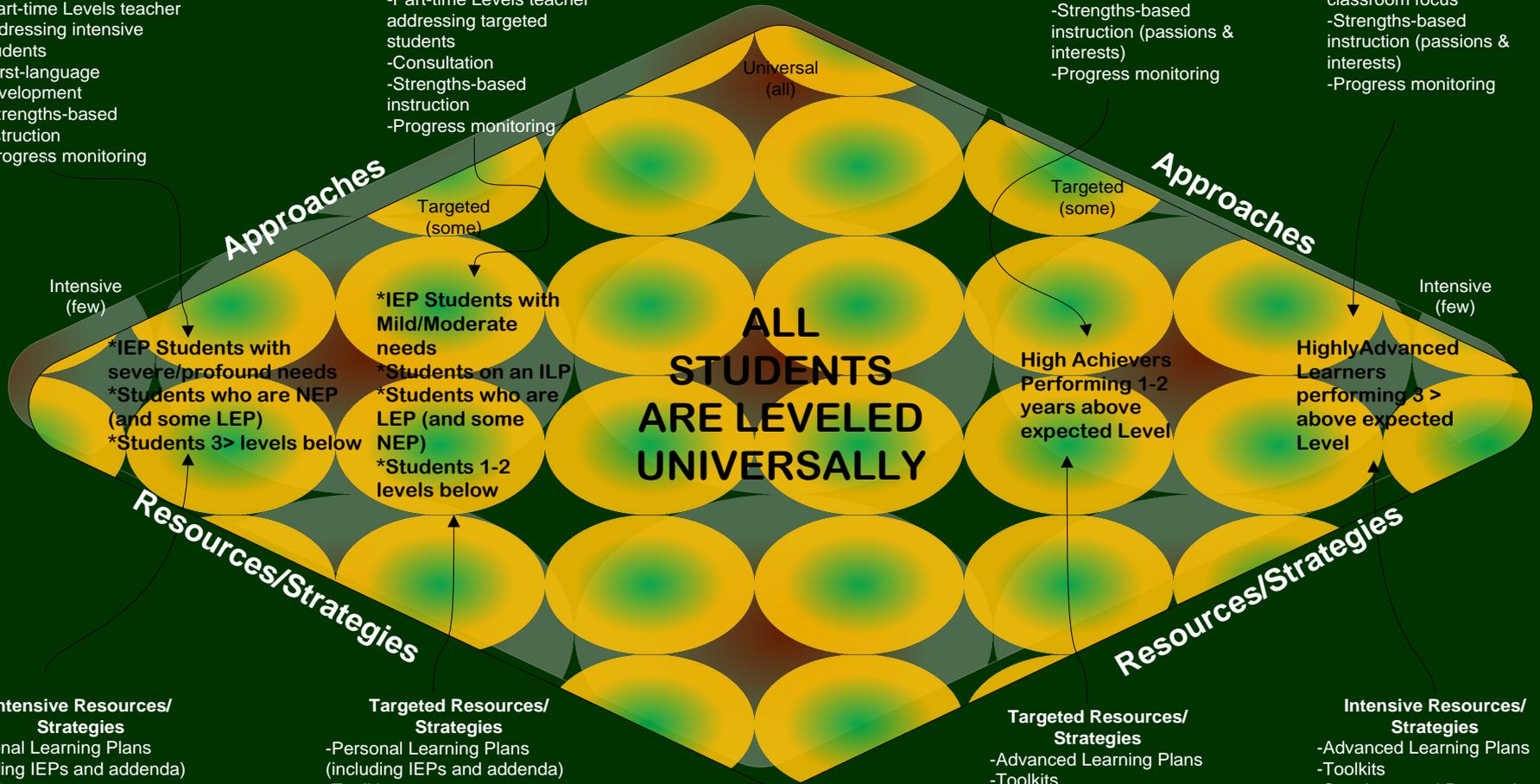
- Small group supplemental instruction (e.g., double-dosing).
- Collaborative Co-Teaching
- Part-time Levels teacher addressing targeted students
- Consultation
- Strengths-based instruction
- Progress monitoring

Targeted Instructional Approaches

- Enrichment access
- Collaborative Co-Teaching
- Consultation
- Strengths-based instruction (passions & interests)
- Progress monitoring

Intensive Instructional Approaches

- 1-1 direct instruction
- Small group instruction
- Partial-day magnet classroom focus
- Strengths-based instruction (passions & interests)
- Progress monitoring



ALL STUDENTS ARE LEVELED UNIVERSALLY

***IEP Students with severe/profound needs**
***Students who are NEP (and some LEP)**
***Students 3 > levels below**

***IEP Students with Mild/Moderate needs**
***Students on an ILP**
***Students who are LEP (and some NEP)**
***Students 1-2 levels below**

High Achievers Performing 1-2 years above expected Level

Highly Advanced Learners performing 3 > above expected Level

Intensive Resources/Strategies

- Personal Learning Plans (including IEPs and addenda)
- Toolkits
- Supplemented Research-based C & I
- Significant Interventionist Support
- Increased Para support
- Curriculum Modifications

Targeted Resources/Strategies

- Personal Learning Plans (including IEPs and addenda)
- Toolkits
- Supplemented Research-based C & I
- Moderate Interventionist Support
- Para support (if needed)
- Accommodations

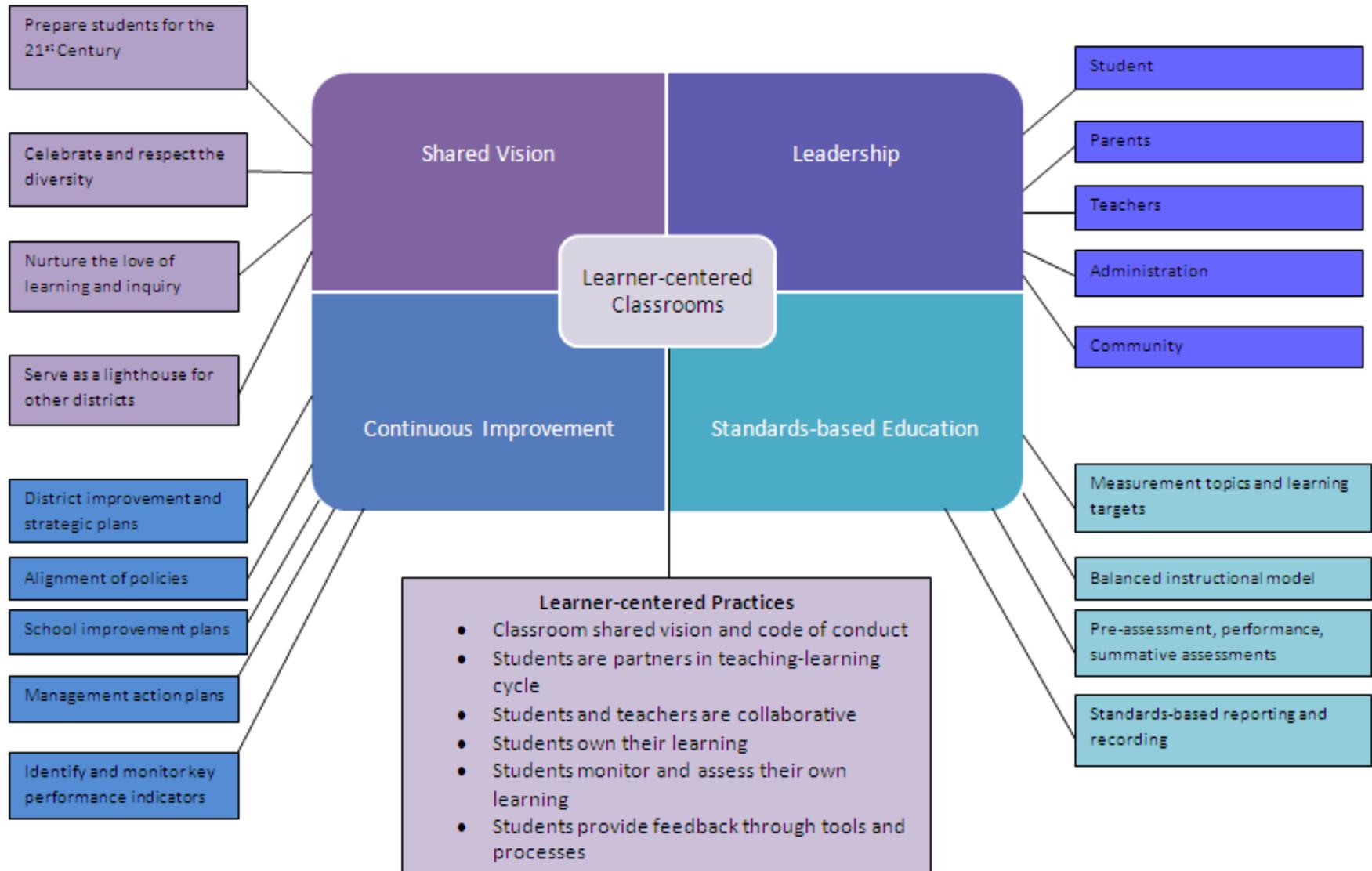
Targeted Resources/Strategies

- Advanced Learning Plans
- Toolkits
- Supplemented Research-based C & I
- Moderate Interventionist Support

Intensive Resources/Strategies

- Advanced Learning Plans
- Toolkits
- Supplemented Research-based C & I
- Partial-day homogeneous groupings
- Critical thinking focus

Learner-centered, Standards-based Educational Model



CSAP Reading Median Growth Percentile

| | 2009 | 2010 | 2011 |
|----------|------|------|------|
| District | 44 | 40 | 45 ▲ |
| Grade 4 | 41 | 37 | 45 ▲ |
| Grade 5 | 44 | 38 | 50 ▲ |
| Grade 6 | 38 | 31 | 45 ▲ |
| Grade 7 | 48 | 45 | 48 ▲ |
| Grade 8 | 54 | 42 | 46 ▲ |

Each child is
UNIQUE
Shouldn't education be?

CSAP Writing Median Growth Percentile

| | 2009 | 2010 | 2011 |
|----------|------|------|--|
| District | 48 | 38 | 42  |
| Grade 4 | 40 | 39 | 37  |
| Grade 5 | 51 | 38 | 49  |
| Grade 6 | 47 | 36 | 43  |
| Grade 7 | 49 | 39 | 42  |
| Grade 8 | 54 | 37 | 42  |

Each child is
UNIQUE
Shouldn't education be?



CSAP Math Median Growth Percentile

| | 2009 | 2010 | 2011 | |
|----------|------|------|------|---|
| District | 38 | 31 | 41 | ▲ |
| Grade 4 | 40 | 36 | 45 | ▲ |
| Grade 5 | 44 | 38 | 62 | ▲ |
| Grade 6 | 30 | 23 | 26 | ▲ |
| Grade 7 | 39 | 27 | 35 | ▲ |
| Grade 8 | 43 | 32 | 46 | ▲ |

Each child is
UNIQUE
Shouldn't education be?







Learning for All – What Does It Take?

“We can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us. We already know more than we need to do that. Whether or not we do it must finally depend on how we feel about the fact that we haven’t so far.”

Ronald Edmonds



Each child is
UNIQUE
Shouldn't education be?



Each child is
UNIQUE
Shouldn't education be?



Reference Slides Follow...

Each child is
UNIQUE
Shouldn't education be?



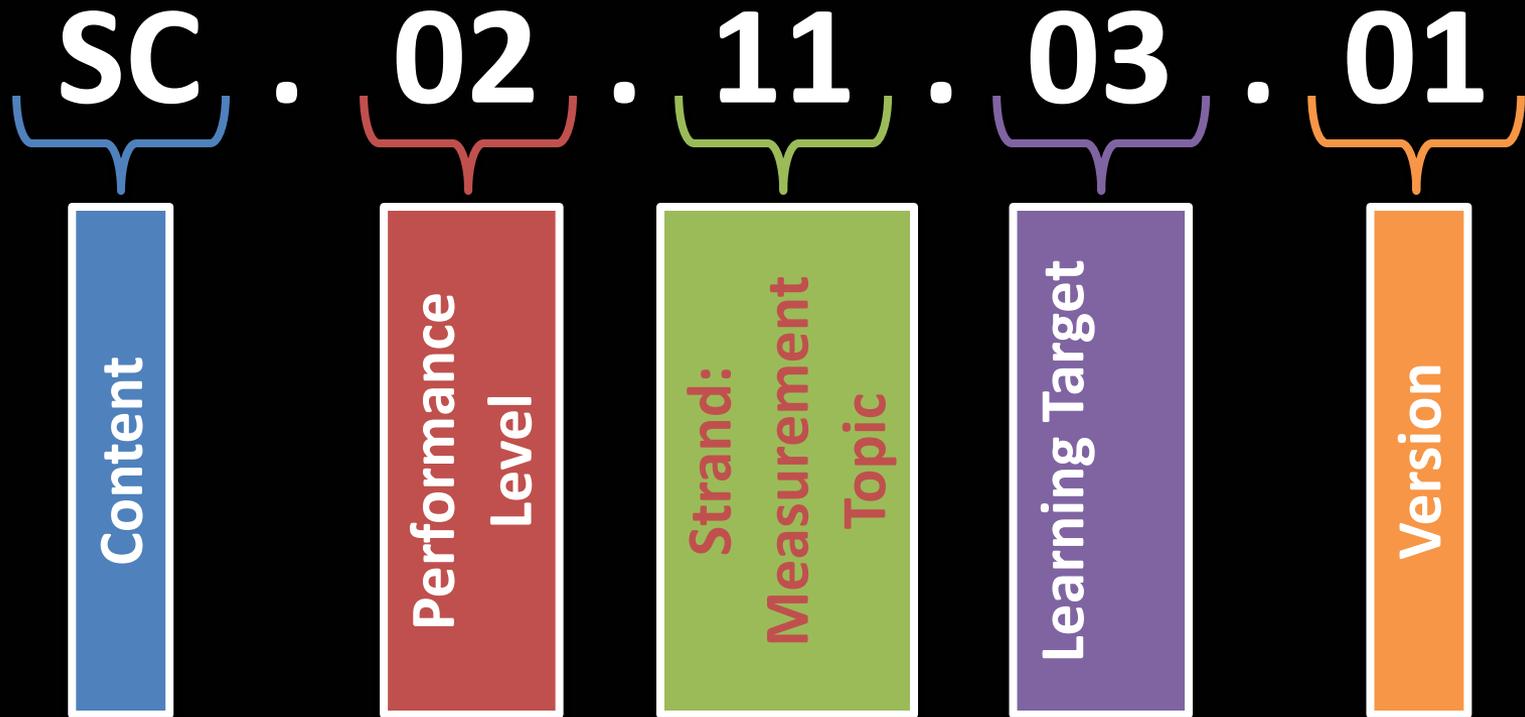
The Definition of a Grade

- A grade can be regarded only as an inadequate report of an inaccurate judgment by a biased and variable judge of the extent to which a student has attained an undefined level of mastery of an unknown proportion of an indefinite amount of material.

– By Paul Dressel (as cited in Kohn 1993)

Each child is
UNIQUE
Shouldn't education be?

Anatomy of the D50 Numbering System

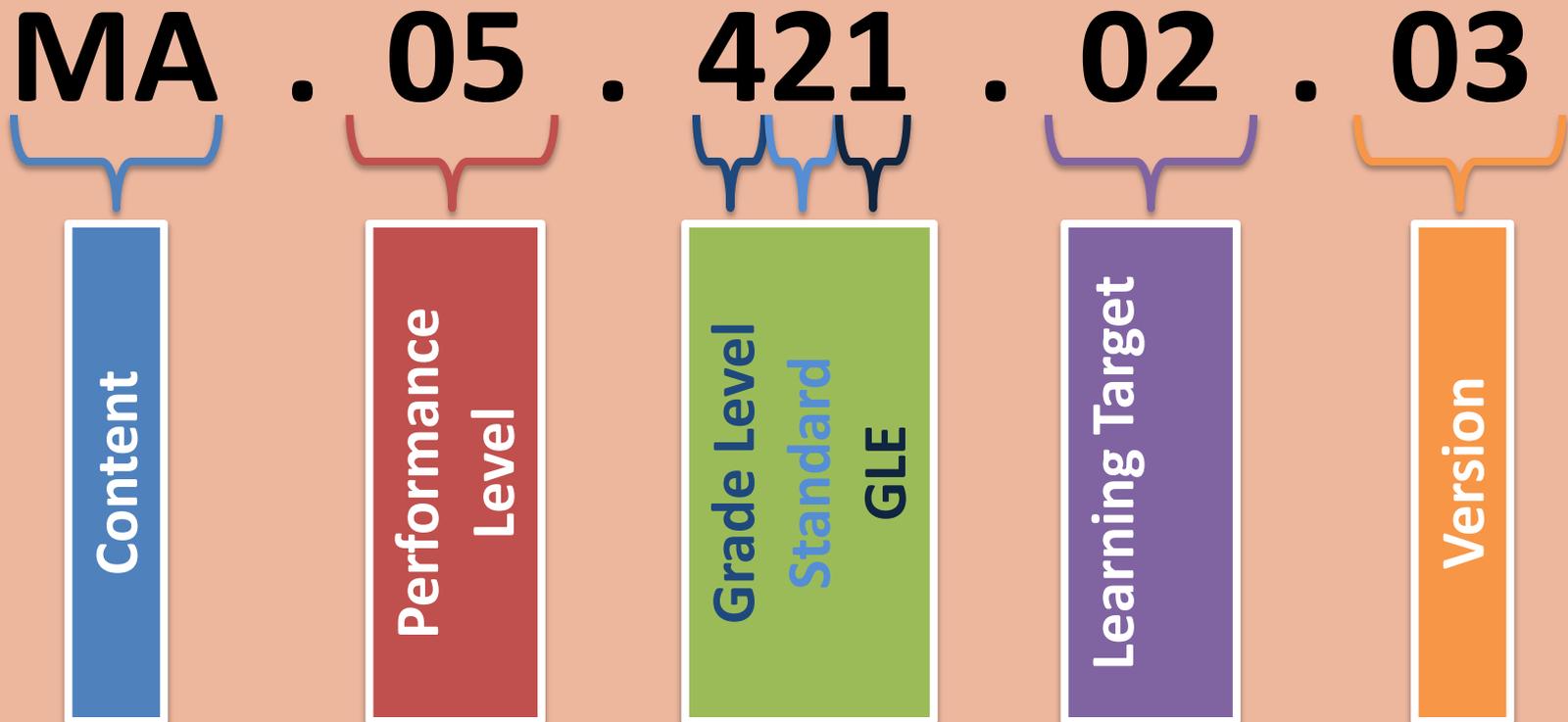


Each child is
UNIQUE
Shouldn't education be?

Anatomy of the D50 Numbering System

for Math and Literacy

- MA** = Math
- 05** = D50 Performance Level 05
- 421** = **4** - *Grade*: Fourth Grade
2 - *Standard*: 2. Patterns, Functions, and Algebraic Structures
1 - *Grade Level Expectation*: 1. Number patterns and relationships can be represented by symbols
- 02** = Learning Target Number
- 03** = Version 3 of the Learning Target



Guide to CDE Standards Template

[Colorado Academic Standards link](#)

CDE Standard =
D50 Strand

CDE Grade Level
Expectation =
D50 Measurement
Topic

CDE Evidence
Outcome =
D50 Learning Target

Content Area: Mathematics

Standard: 2. Patterns, Functions, and Algebraic Structures

Prepared Graduates:

- Make sound predictions and generalizations based on patterns and relationships that arise from numbers, shapes, symbols, and data
- Make claims about relationships among numbers, shapes, symbols, and data and defend those claims by relying on the properties that are the structure of mathematics.

Grade Level Expectation: Fourth Grade

Grade Level

Concepts and skills students master:

- ➔ 1. Number patterns and relationships can be represented by symbols

Evidence Outcomes

Students can:

- a. Generate and analyze patterns and identify apparent features of the pattern that were not explicit in the rule itself.¹ (CCSS: 4.OA.5)
 - i. Use number relationships to find the missing number in a sequence
 - ii. Use a symbol to represent and find an unknown quantity in a problem situation
 - iii. Complete input/output tables
 - iv. Find the unknown in simple equations
- b. Apply concepts of squares, primes, composites, factors, and multiples to solve problems
 - i. Find all factor pairs for a whole number in the range 1–100. (CCSS: 4.OA.4)
 - ii. Recognize that a whole number is a multiple of each of its factors. (CCSS: 4.OA.4)
 - iii. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. (CCSS: 4.OA.4)
 - iv. Determine whether a given whole number in the range 1–100 is prime or composite. (CCSS: 4.OA.4)

21st Century Skills and Readiness Competencies

Inquiry Questions:

1. What characteristics can be used to classify numbers into different groups?
2. How can we predict the next element in a pattern?
3. Why do we use symbols to represent missing numbers?
4. Why is finding an unknown quantity important?

Relevance and Application:

1. Use of an input/output table helps to make predictions in everyday contexts such as the number of beads needed to make multiple bracelets or number of inches of expected growth.
2. Symbols help to represent situations from everyday life with simple equations such as finding how much additional money is needed to buy a skateboard, determining the number of players missing from a soccer team, or calculating the number of students absent from school.
3. Comprehension of the relationships between primes, composites, multiples, and factors develop number sense. The relationships are used to simplify computations with large numbers, algebraic expressions, and division problems, and to find common denominators.

Nature of Mathematics:

1. Mathematics involves pattern seeking.
2. Mathematicians use patterns to simplify calculations.
3. Mathematicians model with mathematics. (MP)

Guide to D50 Literacy & Math Capacity Matrix

Evidence Scores section allows tracking of the body of evidence leading to proficiency.

Learning Progress section serves as the Scoring Guide.

D50 Measurement Topic = CDE Grade Level Expectation

D50 Learning Target = CDE Evidence Outcome

CAS & CCSS Reference – These numbers will allow teachers to search online for open source resources to support classroom instruction.

| Name: | | Math: Level 5 | | Teacher: | | |
|--|--|-------------------|-----------|-----------------|---------|--|
| Measurement Topic | | | | | | |
| MA.05.421 Number patterns and relationships can be represented by symbols | | | | | | |
| Learning Target | | Learning Progress | | Evidence Scores | | |
| | | Information | Knowledge | Application | Mastery | Resources |
| Generate and analyze patterns and identify apparent features of the pattern that were not explicit in the rule itself. (CAS: 4.2.1.a) (CCSS: 4.OA.5) | | | | | | 21st Century Skills Inquiry Questions: 1. What characteristics can be used to classify numbers into different groups? 2. How can we predict the next element in a pattern? 3. Why do we use symbols to represent missing numbers? 4. Why is finding an unknown quantity important? |
| MA.05.421.01.03 Use number relationships to find the missing number in a sequence (CAS: 4.2.1.a.i) | | | | | | |
| MA.05.421.02.03 Use a symbol to represent and find an unknown quantity in a problem situation (CAS: 4.2.1.a.ii) | | | | | | |
| MA.05.421.03.03 Complete input/output tables (CAS: 4.2.1.a.iii) | | | | | | |
| MA.05.421.04.03 Find the unknown in simple equations | | | | | | Relevance and Application: 1. Use of an input/output table helps to make predictions in everyday contexts such as the number of beads needed to make multiple bracelets or number of inches of expected growth. 2. Symbols help to represent situations from |
| Apply concepts of squares, primes, composites, and solve problems (CAS: 4.2.1.b) | | | | | | |
| MA.05.421.05.03 Find all factor pairs for a whole number 1–100. (CAS: 4.2.1.b.i) (CCSS: 4.OA.4) | | | | | | |
| MA.05.421.06.03 Recognize that a whole number is a multiple of each of its factors. (CAS: 4.2.1.b.ii) (CCSS: 4.OA.4) | | | | | | |
| MA.05.421.07.03 Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. (CAS: 4.2.1.b.iii) (CCSS: 4.OA.4) | | | | | | |
| MA.05.421.08.03 Determine whether a given whole number in the range 1–100 is prime or composite. (CAS: 4.2.1.b.iv) (CCSS: 4.OA.4) | | | | | | |

Resources section will list available district primary resources.

21st Century Skills section outlines Inquiry Questions and Relevance and Application statements pulled directly from the CDE document. These items can be used to build assessments and tasks.



Elementary Capacity Matrix

Name: _____ Date Started: _____ Date Completed: _____
 Subject: _____ Teacher: _____ Level: _____

| Learning Target: | 1 | 2 | 3 | 4 | What is my evidence? | Teacher Sign off/Date |
|--|---|--|---|--|----------------------|-----------------------|
| | Emerging I need help.  | Partially Proficient I learned the simple parts.  | Proficient I learned the simple and complex parts.  | Advanced I can go beyond by showing it in a new way.  | | |
| SC.02.11.01.01 Generates basic questions about the physical world based on observations | | | | | | |
| Recognize that observations can be made through smell | | | | | | |
| Recognize that observations can be made through taste | | | | | | |
| Recognize that observations can be made through touch | | | | | | |
| Recognize that observations can be made through hearing | | | | | | |
| Recognize that observations can be made through sight | | | | | | |
| Generate questions about the physical world based on different types of observations | | | | | | |
| Score four - | | | | | | |

Scoring Guide

| | |
|--|--|
| Strand: Nature of Science | |
| Measurement Topic: Nature of Scientific Knowledge and Inquiry (.11) | |
| SC.02.11.03.01 | |
| Score 4.0 | <p>In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught such as...</p> <ul style="list-style-type: none"> ▪ Evaluating if a prediction based upon observations is testable. |
| Score 3.5 | In addition to Score 3.0 performance, in-depth inferences and applications with partial success. |
| Score 3.0 | <p>While engaged in tasks that address the nature of scientific knowledge and inquiry, the student...</p> <ul style="list-style-type: none"> ▪ Generates hypotheses based on observations <p>The student exhibits no major errors or omissions.</p> |
| Score 2.5 | No major errors or omissions regarding the simpler details and process and partial knowledge of the more complex ideas and processes. |
| Score 2.0 | <p>There are no major errors or omissions regarding the simpler details and processes as the learner...</p> <ul style="list-style-type: none"> ▪ Recalls that a hypothesis is a prediction ▪ Relates specific terminology to... <ul style="list-style-type: none"> ▪ prediction ▪ hypothesis <p>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</p> |
| Score 1.5 | Partial knowledge of the simpler details and processes but major errors or omissions regarding the more complex ideas and procedures. |
| Score 1.0 | With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes. |
| Score 0.5 | With help, a partial understanding of some of the simpler details and processes but not the more complex ideas and processes. |
| Score 0.0 | Even with help, no understanding or skill demonstrated. |

Strand
Broad category of learning

D50 Numbering System

Learning Targets
The Score 3.0 bullet is designated the Learning Target. The LT defines proficiency.

Measurement Topic
More specific category of learning within strand

Score 3.0
The content or skills that are explicitly taught

Score 2.0
Simpler or foundational skills or knowledge at a lower taxonomic level

Learning Target Crosswalk - Math Level 5

| Revision Type | 2011-2012 LT | 2011-2012 LT Description | 2010-2011 LT | 2010-2011 LT Description | State Standard | Common Core Standard |
|---------------|-----------------|--|----------------|--|----------------|----------------------|
| 4 | MA.05.421.01.03 | Use number relationships to find the missing number in a sequence. (CAS: 4.2.1.a.i) (CCSS: 4.OA.5) | MA.03.04.02.01 | Identify a missing number in a sequence and describe a rule | 4.2.1.a.i | 4.OA.5 |
| 1 | MA.05.421.02.03 | Use a symbol to represent and find an unknown quantity in a problem situation. (CAS: 4.2.1.a.ii) (CCSS: 4.OA.5) (CCSS: 4.OA.5) | | | 4.2.1.a.ii | 4.OA.5 |
| 4 | MA.05.421.03.03 | Complete input/output tables. (CAS: 4.2.1.a.iii) (CCSS: 4.OA.5) | MA.07.04.02.01 | Describe how changing one quantity affects another quantity (in-out box) | 4.2.1.a.iii | 4.OA.5 |
| 1 | MA.05.421.04.03 | Find the unknown in simple equations. (CAS: 4.2.1.a.iv) (CCSS: 4.OA.5) | | | 4.2.1.a.iv | 4.OA.5 |
| 1 | MA.05.421.05.03 | Find all factor pairs for a whole number in the range 1–100. (CAS: 4.2.1.b.i) (CCSS: 4.OA.4) | | | 4.2.1.b.i | 4.OA.4 |
| 1 | MA.05.421.06.03 | Recognize that a whole number is a multiple of each of its factors. (CAS: 4.2.1.b.ii) (CCSS: 4.OA.4) | | | 4.2.1.b.ii | 4.OA.4 |
| 1 | MA.05.421.07.03 | Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. (CAS: 4.2.1.b.iii) (CCSS: 4.OA.4) | | | 4.2.1.b.iii | 4.OA.4 |
| 1 | MA.05.421.08.03 | Determine whether a given whole number in the range 1–100 is prime or composite. (CAS: 4.2.1.b.iv) (CCSS: 4.OA.4) | | | 4.2.1.b.iv | 4.OA.4 |

Each child is
UNIQUE
Shouldn't education be?



<http://wiki.adams50.org>

10.200.240.1 Talk for this IP Log in / create account

Each child is
UNIQUE
Shouldn't education be?



Adams County School District 50 Wiki

Navigation

- [Main Page](#)
- [Community portal](#)
- [Current events](#)
- [Recent changes](#)
- [Random page](#)
- [Help](#)
- [Donations](#)

SBE

- [Main Page](#)
- [Math](#)
- [Literacy](#)
- [Science](#)
- [Social Studies](#)
- [Technology](#)
- [Art](#)
- [Music](#)
- [Physical Education](#)
- [World Language](#)
- [Personal/Social Skills](#)

Tech Services

- [Main Page](#)

Search

SBS:Main

[SBS](#) | [Discussion](#) | [View source](#) | [History](#)

Welcome to the Adams County School District 50 Standards Based Education Wiki

Friday, July 24, 2009

Number of Pages 2,714 Number of Articles 2

Contents [hide]

- [1 Content Areas](#)
- [2 Getting Started](#)
- [3 Wiki Templates](#)
- [4 Understanding the D50 Standards Based System](#)
- [5 About Standards-based Education](#)
- [6 SBS Tools and Processes](#)
- [7 SBS Professional Development](#)
- [8 Interventionist Corner](#)
- [9 Instructional Technology](#)
- [10 AVID](#)

Content Areas

- | | | |
|----------------------------------|-----------------------------------|--|
| ▪ Math | ▪ Technology | ▪ Physical Education |
| ▪ Literacy | ▪ Visual Arts | ▪ World Language |
| ▪ Science | ▪ Performing Arts | ▪ Personal/Social Skills |
| ▪ Social Studies | | |

Getting Started

[Curriculum](#)
[Wiki](#)

Navigation

- [Main Page](#)
- [Community portal](#)
- [Current events](#)
- [Recent changes](#)
- [Random page](#)
- [Help](#)
- [sitesupport](#)

SBE

- [Main Page](#)
- [Math v2](#)
- [Literacy v2](#)
- [Science v2](#)
- [Social Studies v2](#)
- [Technology](#)
- [Visual Arts v2](#)
- [Performing Arts](#)
- [Physical Education v2](#)
- [World Language](#)
- [Personal/Social Skills](#)

Tech Services

- [Main Page](#)

Search

Toolbox

- [What links here](#)
- [Related changes](#)
- [Upload file](#)
- [Special pages](#)
- [Printable version](#)
- [Permanent link](#)

SBS:Math Level 05 v3

[SBS](#) | [Discussion](#) | [View source](#) | [History](#)

Go back to main [Math v3](#) page

[Para español presione aquí](#)

[Math Level 05 Capacity Matrices](#)

[Math Level 05 Vocabulary](#)

Contents [hide]

- [1 Number Sense, Properties, and Operations](#)
- [2 Patterns, Functions, and Algebraic Structures](#)
- [3 Data Analysis, Statistics, and Probability](#)
- [4 Shape, Dimension, and Geometric Relationships](#)

Number Sense, Properties, and Operations

Measurement Topic: *MA.05.411 The decimal number system to the hundredths place describes place value patterns and relationships that are repeated in large and small numbers and forms the foundation for efficient algorithms* [Capacity Matrix](#)
[MA.05.411](#)

[MA.05.411.01.03](#) Explain that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. (CAS: 4.1.1.a.i) (CCSS: 4.NBT.1)

[MA.05.411.02.03](#) Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. (CAS: 4.1.1.a.ii) (CCSS: 4.NBT.2)

[MA.05.411.03.03](#) Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons. (CAS: 4.1.1.a.iii) (CCSS: 4.NBT.2)

[MA.05.411.04.03](#) Use place value understanding to round multi-digit whole numbers to any place. (CAS: 4.1.1.a.iv) (CCSS: 4.NBT.3)

[MA.05.411.05.03](#) Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. (CAS: 4.1.1.b.i) (CCSS: 4.NF.5)

[MA.05.411.06.03](#) Use decimal notation for fractions with denominators 10 or 100. (CAS: 4.1.1.b.ii) (CCSS: 4.NF.6)

[MA.05.411.07.03](#) Compare two decimals to hundredths by reasoning about their size. (CAS: 4.1.1.b.iii) (CCSS: 4.NF.7)

Measurement Topic: *MA.05.413 Formulate, represent, and use algorithms to compute with flexibility, accuracy, and efficiency* [Capacity Matrix](#)

[MA.05.413.01.03](#) Fluently add and subtract multi-digit whole numbers using standard algorithms. (CAS: 4.1.3.a.i) (CCSS:

Nature of Science: Nature of Scientific Knowledge and Inquiry (.11)

Generates a testable hypothesis in the correct format (CMCS 1.1a) (CAS 4.1f)



Learning Target Connections

Interdisciplinary Connections

Intradisciplinary Connections

- Aspects of SC.06.01.01.02 can pair with this learning target.
- SC.06.11.01.01 is so closely tied to this learning target that it should be taught in tandem with this learning target.

Instructional Strategies

Inquiry Learning

Online Learning

Vocabulary Development

Concept Development

Assessments

Marzano Scoring Guide

[SC.06.11.03.01 Scoring Guide](#)

Sample Sources of Evidence

Score 2

- Determine if the hypotheses in each scenario include the independent and dependent variable, are based on previously-made observations, and are testable through experimentation.

Score 3

- Write a testable hypothesis for each given scientific question. Hypothesis must include independent variable and dependent variable and be based on previously-made observations.

Score 4

-

Exemplars

-

Capacity Matrix

[SC.06.11.03.01 Capacity Matrix](#)

Resources

Primary

Open Source

Curricula

Activities

Teaching Behaviors

| | | | | | | | | | | | | | | | | | | | |
|------------------|--|---|---|--|---|--|---|---|--|---|--|---|--|--|--|--|--|--|--|
| | | | 8. Reflecting on learning | | | | | | | 9. Using unusual or intriguing information | | | | | | | | | |
| | | | 7. Recording and representing knowledge | 15. Revising knowledge | | | | | | 8. Providing opportunities for learners to relate content to personal interests | | | | | | | | | |
| | | | 6. Elaborating on new information (make & defend inferences) | 14. Practicing skills, strategies and processes | | | | | | 7. Using friendly controversy | | | | | | | | | |
| | | | 5. Group processing of new information (e.g., Summarize & clarify what they have experienced) | 13. Examining errors in reasoning | | | | | | 6. Demonstrating intensity and enthusiasm | | | | | | | | | |
| | | | 4. Chunking content into digestible bites | 12. Examining similarities and differences | | | | | | 5. Maintaining a lively pace | | | | | | | | | |
| | 3. Celebrating student success | | 3. Previewing new content | 11. Using homework for practice or elaboration | 18. Providing resources and guidance | | | | 3. Managing response rate during questioning | 12. Acknowledging adherence to COC and procedures | 15. Displaying objectivity and control | 18. Probing incorrect answers with struggling learners | | | | | | | |
| | 2. Tracking learner progress (formative assessment) | 5. Organizing the physical layout of the classroom for learning | 2. Organizing students to interact with new knowledge (dyads, triads, small chunks of learning) | 10. Organizing students to practice and deepen knowledge | 17. Engage student in cognitively complex tasks involving hypothesis generating & testing | | | | 2. Using academic games | 11. Applying consequences | 14. Using behaviors that indicate affection for students | 17. Asking questions of low struggling learners | | | | | | | |
| | 1. Providing clear learning targets and rubrics and exemplars | 4. Establishing and maintaining classroom COC | 1. Identifying critical information | 9. Reviewing content | 16. Organizing students for cognitively complex tasks | | | | 1. Noticing and reacting when students are not engaged | 10. Demonstrating "withitness" | 13. Understanding learners' interests and backgrounds | 16. Demonstrating value and respect for low expectancy students | | | | | | | |
| Reflective Guide | Pages 2 - 4 | Pages 5 - 6 | Pages 7 - 14 | Pages 15 - 21 | Pages 22 - 24 | Pages 25 - 33 | Pages 34 - 36 | Pages 37 - 39 | Pages 40 - 42 | | | | | | | | | | |
| Design Questions | 1. Communicate learning targets track learner progress & celebrate success | 6. Establish & maintain classroom code of conduct & procedures | 2. Interact with new knowledge | 3. Practice & deepen understanding of new knowledge | 4. Generate & test hypothesis about new knowledge | 5. Engaging Learners | 7. Recognize & acknowledge adherence or lack of adherence to COC & procedures | 8. Establish & maintain effective relationships with learners | 9. Communicate high expectations | 10. Effective lessons in cohesive units | | | | | | | | | |
| Teacher Factors | Routines & Procedures | | Addressing Content | | | On The Spot Behaviors (Classroom Management) | | | | Curriculum | | | | | | | | | |
| Modules | 2, 3 | 16, 17 | 4, 5, 6 | 7, 8, 9 | 10, 11, 12 | 13, 14, 15 | 16, 17 | 20, 21 | 24, 25 | | | | | | | | | | |



Assess

Collecting information about the progress of learners

Capacity matrices
Rubrics
Formative assessments
Peer assessments
Scantron assessments
Progress monitoring
Recording & Reporting

Teach

Providing the amount and kind of support needed for new learning to occur

Gradual release
Effective questioning
Interventions
Accelerations

Learner Centered

Descriptive feedback
Data-driven dialogue
PDCA process
Personal learning plans
Reflection
Self-evaluation

Evaluate

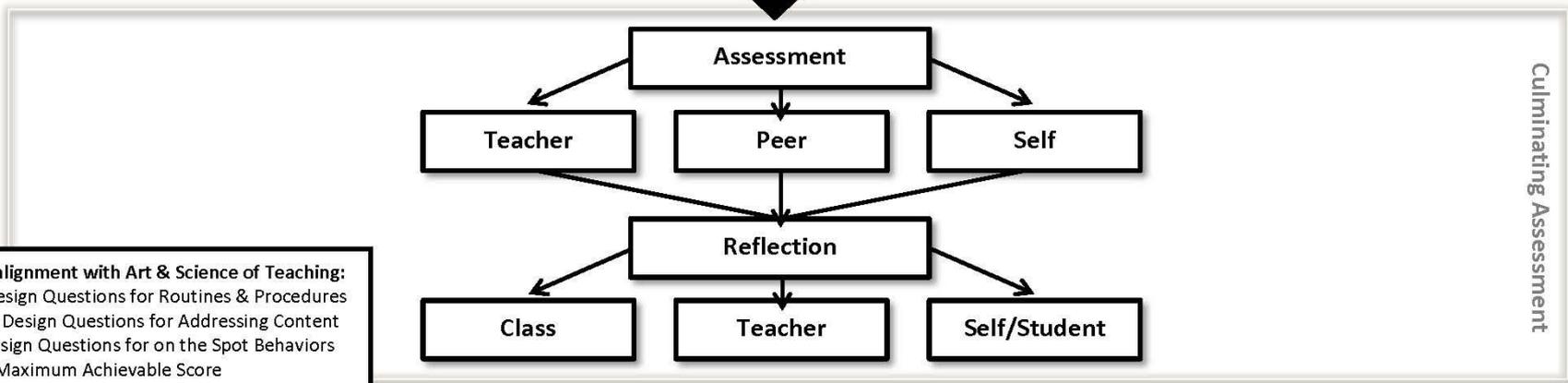
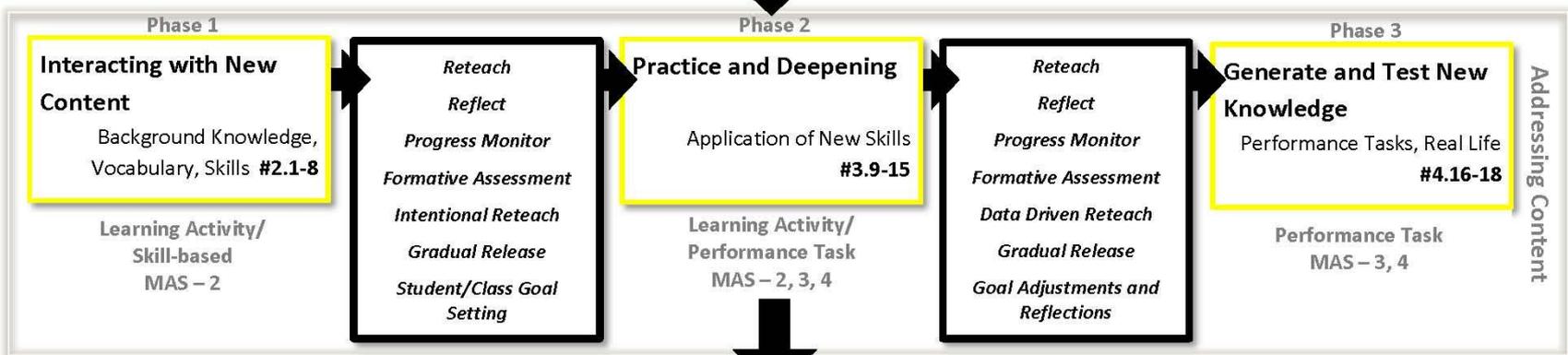
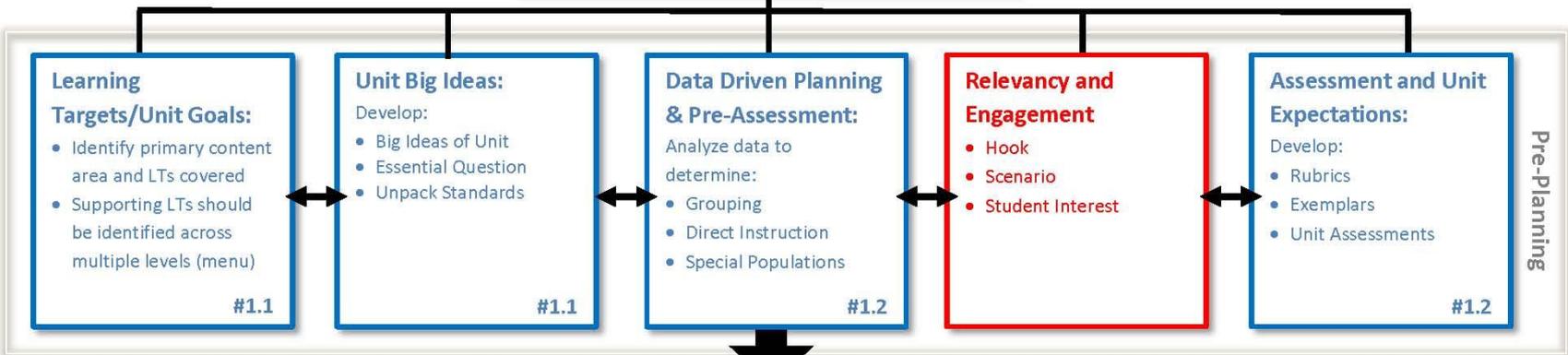
Noticing what the learner can do, is attempting to do, and needs to do next

Backward design
Unpacked learning targets
Bundled learning targets
Defined proficiencies
Learner tools & processes
Learner Choices

Plan

Planning for learning targets: groupings, resources, support, assessments

**Unit Plan Mental Model for a
Learner-centered, Standards-based System**
(Blending the D50, RISC, & Marzano Concepts)



Key to alignment with Art & Science of Teaching:
Blue: Design Questions for Routines & Procedures
Yellow: Design Questions for Addressing Content
Red: Design Questions for on the Spot Behaviors
 MAS = Maximum Achievable Score
Last Updated: March 30, 2011

Relationships #8

Effective Lessons in Coherent Units #10

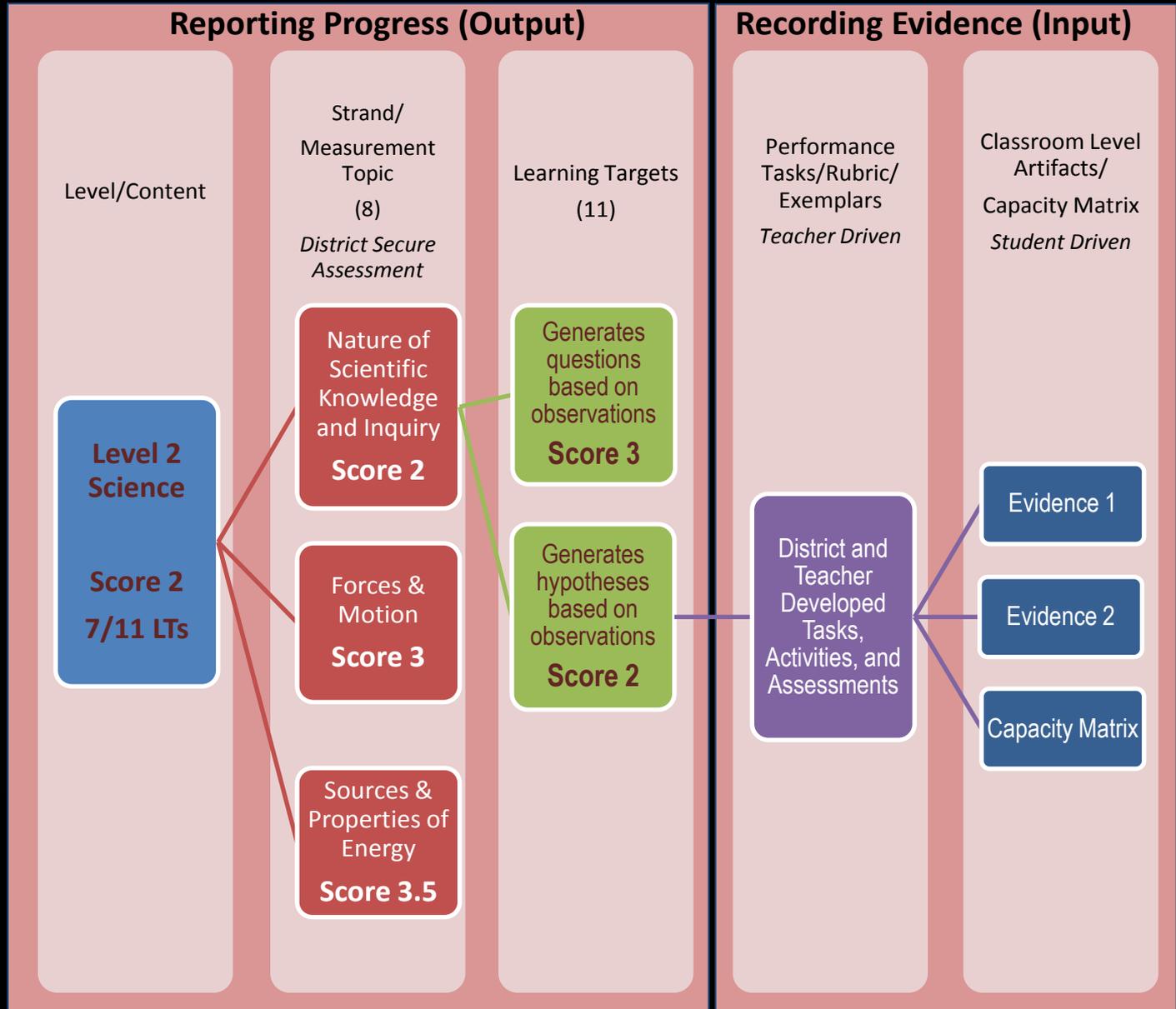
Establishing Rules and Procedures #6

Maintaining Adherence to Rules and Procedures #7

Relationships #8

E-ducate Reporting System - Student Snapshot

Level 2 Science





Student Snapshot Filters



Snapshot Date :
 Site :
 Enrollment Status :
 Students :
 Pacing Goals :
 Add Goal
 Activate Level Scorer : Check to Activate
 Show Percent : Check to Activate

Student Snapshot

Content Levels

| Content Areas | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|--------------------|----------|----------|-------------------------|---------------------------|--------------------------|--------------------------|----------|--------------------------|-----|-----|----|----|----|----|----|----|----|
| Math | Promoted | Promoted | Promoted | 13 of 17 3.0 | 3 of 14 3.0 | 2 of 15 3.0 | | | | | | | | | | | |
| Literacy | Promoted | Promoted | Promoted | Promoted | Promoted | Promoted | Promoted | 9 of 21 3.0 | | | | | | | | | |
| Science | | Promoted | 3 of 6 3.0 | | 1 of 8 3.0 | | | | | | | | | | | | |
| Social Studies | | Promoted | 2 of 8 3.0 | | | | | | | | | | | | | | |
| Technology | | Promoted | | | | | | | | | | | | | | | |
| Visual Arts | Promoted | Promoted | 2 of 8 3.0 | | | | | | | | | | | | | | |
| Physical Education | | Promoted | 6 of 8 3.0 | | | | | | | | | | | | | | |
| Personal/Social | | Promoted | | | | | | | | | | | | | | | |
| Performing Arts | Promoted | Promoted | | | BA5 | BA6 | BA7 | BA8 | BA9 | B10 | | | | | | | |
| | | | | | CH5 | CH6 | CH7 | CH8 | CH9 | C10 | | | | | | | |
| | | | | | OR5 | OR6 | OR7 | OR8 | OR9 | O10 | | | | | | | |
| | | | | | DR5 | DR6 | DR7 | DR8 | DR9 | D10 | | | | | | | |
| World Language | SP1 | SP2 | SP3 | SP4 | SP5 | SP6 | SP7 | SP8 | SP9 | S10 | | | | | | | |
| | FR1 | FR2 | FR3 | FR4 | FR5 | FR6 | FR7 | FR8 | FR9 | F10 | | | | | | | |

Math Level 05 for

[view historical progress](#)

[show/hide all Learning Targets](#)

[Collapse Evidence Area](#)

NUMBERS AND OPERATIONS: NUMBER SENSE AND NUMBER SYSTEMS (.01)

1 of 2

| Name | Learning Target Definition | Overall Score | | | Evidences | | | |
|----------------|-------------------------------|---------------|--------|-------|----------------------|-------|-----|-------|
| | | Score | PWL | links | Name | Score | KDT | Links |
| MA.05.01.08.01 | Identify odd and even numbers | 3.0 | 4/3.00 | | Even Baseball Path | 3.0 | | |
| | | | | | Homework | 3.0 | | |
| | | | | | The Odd Mouse Path | 3.0 | | |
| | | | | | White board activity | 3.0 | | |