



CONNECTICUT
LEAGUE OF
INNOVATIVE SCHOOLS

Curriculum Workshop
June 26-27, 2013

WORKSHOP OUTCOMES

Work with content area colleagues to develop a draft of Graduation Standards/Performance Indicators

WORKSHOP OUTCOMES

Learn how to write standards,
performance indicators, and
learning targets

WORKSHOP OUTCOMES

Gain a deeper understanding of mastery-based learning

WORKSHOP OUTCOMES

Develop a plan to share work with school colleagues - school-wide and in content areas

WORKSHOP OUTCOMES

Connect with LIS colleagues and
learn from one another

WORKSHOP OUTCOMES

Experience the process of developing standards, performance indicators, and learning targets

Mastery-Based Learning Simplified:

Developing Effective Curriculum
Standards, Performance Indicators
and Learning Targets

OUTCOMES

Provide common definitions for
understanding standards
vocabulary

OUTCOMES

Explain the key components of a mastery-based system and how they inform instruction and assessment.

OUTCOMES

Understand the distinction between graduation standards, performance indicators, learning targets and essential questions.

OUTCOMES

Explain key steps in the process of implementing a mastery-based system.

Proficiency

is a student's ability to transfer learning in and/or across content areas.

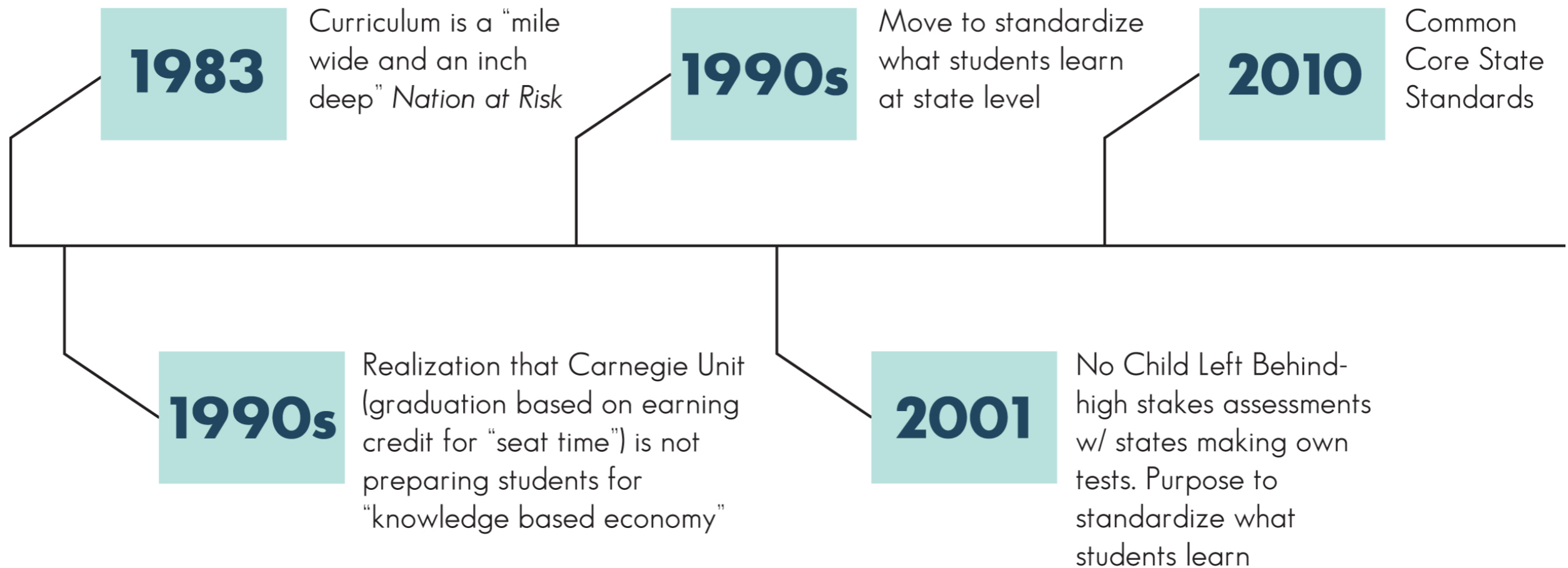
Mastery

is a student's ability to transfer learning in and/or across content areas.

Standard

Established norms or benchmarks for learning that define what students need to know and be able to do.

HISTORY TIMELINE



So, What's The Problem With Standards?

3,500 performance indicators
across 14 content areas k-12:

So, What's The Problem With Standards?

“You would have to change schooling from K-12 to K-22. The sheer number of standards is the biggest impediment to implementing standards.”

- Robert Marzano (2001)

Common **TERMS** for Standards

**PRIORITY
STANDARD**

**LEARNING
TARGETS**

**POWER
STANDARDS**

Common **TERMS** for Standards

**POWER
STANDARDS**

**LEARNING
TARGETS**

**PRIORITY
STANDARD**

DESCRIPTORS

**PROFICIENCY
STANDARDS**

COMPETENCIES

Common **TERMS** for Standards

**POWER
STANDARDS**

**LEARNING
TARGETS**

**PRIORITY
STANDARD**

DESCRIPTORS

**PROFICIENCY
STANDARDS**

BENCHMARKS

COMPETENCIES

**MASTERY
OBJECTIVES**

**MEASUREMENT
TARGETS**

Common **TERMS** for Standards

**GRADUATION
STANDARD**

**POWER
STANDARDS**

**LEARNING
TARGETS**

**PRIORITY
STANDARD**

DESCRIPTORS

**LEARNING
OBJECTIVES**

**PROFICIENCY
STANDARDS**

BENCHMARKS

**PERFORMANCE
INDICATORS**

COMPETENCIES

**MASTERY
OBJECTIVES**

**MEASUREMENT
TARGETS**

All These Terms Are Standards:

Graduation Standard
Power Standards



Learning Targets



BROAD

SPECIFIC

Performance Indicators
Benchmarks





Graduation Standard



Performance Indicator



Learning Target

Mastery-Based Learning Simplified

Graduation Standards for Cross-Curricular Skills

Drawn from Common Core State Standards (Standards for Mathematical Practice *in* Mathematics *and* College and Career Readiness Anchor Standards in English Language Arts), Next Generation Science Standards, *and* state-by-state cross-curricular standards

Graduation Standards for Content Areas

Drawn from Common Core State Standards, Next Generation Science Standards, *and* state-by-state content area standards

| REQUIRED for GRADUATION | REPORTING METHOD | ASSESSMENT METHOD |
|-------------------------|------------------------------------|---|
| YES | Transcript | Graduation Standards Cross-Curricular Skills <i>5–8 school-wide standards</i> Demonstration by Body of Evidence <i>Portfolios, exhibitions, and other culminating demonstrations of learning are assessed</i> |
| YES | Transcript <i>and</i> Report Cards | Graduation Standards by Content Area <i>5–8 standards per content area</i> Verification of Mastery <i>Student progress toward the achievement of standards is determined and reported</i> |
| NO | Progress Reports | Performance Indicators <i>5–10 indicators per content-area standard</i> Performance Tasks <i>Common summative assessments ensure greater consistency in the evaluation of student learning</i> |
| NO | Feedback to Student | Unit-Based Learning Experiences <i>Guided by essential questions, teachers use daily learning targets to create progressions that move students toward the demonstration of performance indicators</i> Formative Teacher Assessments <i>Ongoing formative assessment is used to evaluate student learning progress</i> |



Graduation Standards

Performance Indicators

Learning Targets

INSTRUCTIONAL FOCUS

Graduation Standards

Performance Indicators

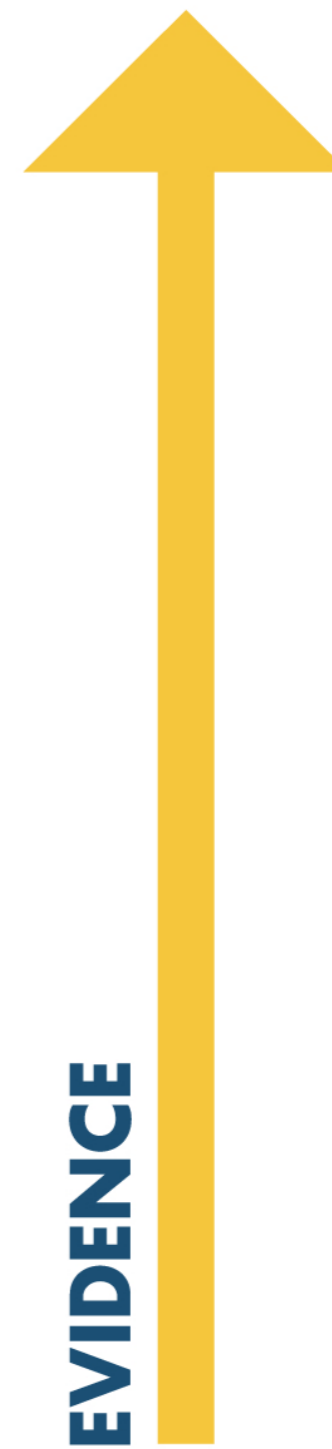
Learning Targets



Graduation Standards

Performance Indicators

Learning Targets



A Graduation Standard Is...

A standard that focuses instruction on the most foundational, enduring, and leveraged concepts and skills within a discipline.



Foundational Lens:

To what extent is this statement at the heart of understanding the content area and to what extent does it align with national & state standards?

Endurance Lens:

To what extent does this statement provide students with knowledge & skills that will be of value beyond a particular point in time (ie, test, unit)?

Leverage Lens:

Will this provide knowledge and skills that will be of use in multiple disciplines?

Cognitive Demand:

What depth of knowledge does this statement promote?

Science

Demonstrate science and engineering practices across multiple disciplines and novel situations- think and act like a scientist.

Social Studies

Apply and demonstrate knowledge of major eras, enduring themes, turning points and historic influences to analyze the forces of continuity and change in the community, the state, the United States and the world.

A Performance Indicator

Describes or defines what students need to know and be able to do to demonstrate mastery of a graduation standard.



A Performance Indicator

Is measurable.



A Performance Indicator

Students can demonstrate their performance over time.



A Performance Indicator

The aggregation of competency on these performance indicators measures whether a student has met the graduation standard.



A Good Performance Indicator

Answers:

“What do we want students to understand and be able to use several years from now, after they have forgotten the details?”



Reading

Interpret, anal analyze, and evaluate complex literary and informational texts

A

Cite strong and thorough textual evidence to support an analysis of the text, including any applicable primary & secondary sources and determine both implicit and explicit meanings

Reading

Interpret, analyze, and evaluate complex literary and informational texts

B

Analyze how an author chose to structure a text and how that structure contributes to the text's meaning and its aesthetic and rhetorical impact

Reading

Interpret, analyze, and evaluate complex literary and informational texts

C Evaluate content and multiple sources of information presented in diverse media and formats

Learning Targets Are...

The component parts of a performance indicator - that is, the performance indicator has been broken down into a series of progressive steps and digestible chunks.



Learning Targets Are...

Clustered in units.



Learning Targets Are...

Determined by teachers individually or in teams.



Learning Targets Are...

Developed based on teacher judgment and knowledge of learners as well as guidance provided from content area collaboration.



Learning Targets Are...

Preparation and practice for the summative assessment which measures proficiency toward one or more of the performance indicators.



Learning Targets Are...

Explicitly shared with students and connected to the “parent” performance indicators/graduation standards.



| | |
|--------------------------------|---|
| Graduation Standard | Apply knowledge of major eras, enduring themes, turning points and historic influences to analyze the forces of change in the community, the state, the United States, and the world. |
| | |
| | |

| | |
|---|--|
| Graduation Standard | Apply knowledge of major eras, enduring themes, turning points and historic influences to analyze the forces of continuity and change in the community, the state, the United States, and the world. |
| Performance Indicators (2 of 8 addressed in unit) | Identify and critique diverse perspectives on societal issues, trends and events and articulate the priorities different groups or people hold in their perspective Select evidence from primary and secondary sources to support an interpretation or argument |
| | |

| | |
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| Learning Targets (4 classes in 4 week unit) | <p>I can define mercantilism and explain how it could be a cost and a benefit to colonists</p> <p>I can analyze the causes and consequences of laws & events in the 1770s and infer different viewpoints colonists may have held about them</p> |

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Graduation Standard

The student applies concepts and processes from history to develop historical perspective and explain issues of continuity and change in the community, the state, the United States and the world.

Performance Indicators (2 of 8 addressed in unit)

The student analyzes and interprets historical events & materials from a variety of perspectives in world history

The student describes and analyzes causal factors that have shaped world history

Learning Targets

(4 classes in 4
week unit)

I can define mercantilism and explain how it could be a cost and a benefit to colonists

I can analyze the causes and consequences of laws & events in the 1770s and infer different viewpoints colonists may have held about them

Were the colonists justified in overthrowing their government?

Graduation Standard

The student applies concepts and processes from history to develop historical perspective and explain issues of continuity and change in the community, the state, the United States and the world.

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The student analyzes and interprets historical events & materials from a variety of perspectives in world history

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Summative Assessment: Debate Between Loyalists + Patriots on the Unit's Essential Question

Learning Targets

(4 classes in 4 week unit)

I can define mercantilism and explain how it could be a cost and a benefit to colonists

I can analyze the causes and consequences of laws & events in the 1770s and infer different viewpoints colonists may have held about them

| | |
|---|---|
| Graduation Standard | <p>Understand and analyze the characteristics, functions and behavioral interactions in an ecosystem.</p> |
| Performance Indicators (2 of 8 addressed in unit) | |
| Learning Targets (4 classes in 4 week unit) | |

| | |
|--|---|
| Graduation Standard | <p>Understand and analyze the characteristics, functions and behavioral interactions in an ecosystem.</p> |
| Performance Indicators (2 of 8 addressed in unit) | <p>Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.</p> <p>Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.</p> |
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| | |
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| Learning Targets (4 classes in 4 week unit) | <p>I can link the knowledge I gained in researching my ecosystem to features displayed in my model.</p> <p>I can develop an investigative question related to my field research and connected to aerobic and anaerobic conditions.</p> <p>I can support my claim about change in my ecosystem by presenting evidence organized into graphs</p> |

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Graduation Standard

Understand and **analyze** the characteristics, functions and behavioral interactions in an ecosystem.

Performance Indicators (2 of 8 addressed in unit)

Construct and **revise** an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.

Learning Targets

(4 classes in 4
week unit)

Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

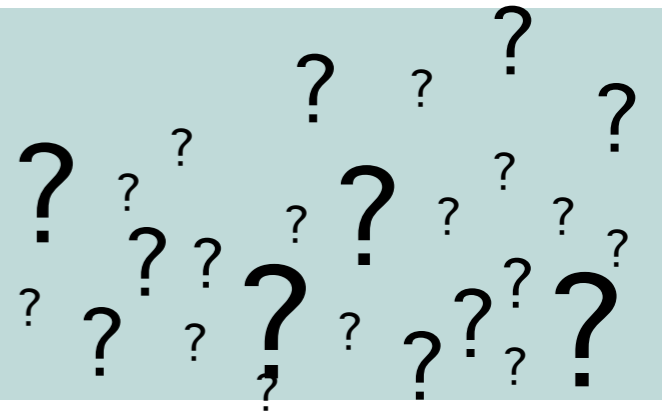
I can link the knowledge I gained in researching my ecosystem to features displayed in my model.

I can develop an investigative question related to my field research and connected to aerobic and anaerobic conditions.

I can support my claim about change in my ecosystem by presenting evidence organized into graphs

How does the flow of matter + energy influence relationships among organisms in an ecosystem?

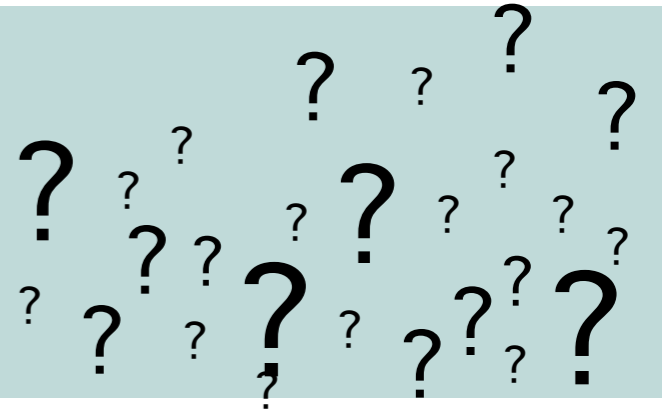
POLL



Which statement is the size of a graduation standard?

1. Apply understanding of scientific knowledge and skill to the nature of inquiry and formulate questions, propose hypotheses, and design, conduct, and report on investigations
2. Plan and conduct a scientific investigation, choosing a method appropriate to the question being asked
3. Formulate one or more hypotheses based on a model or theory of a casual relationship.

POLL



Which of the following is best representative of a performance indicator?

1. Understand the law of supply and demand
2. Use the law of supply and demand to explain the pricing of consumer goods
3. Define the terms “supply” and “demand” and explain how they interact to form a law

ACTIVITY

Mastery-Based Learning Simplified

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Graduation Standards *for* Content Areas

Drawn from Common Core State Standards, Next Generation Science Standards, *and* state-by-state content area standards

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Implementation Steps

1. Content Area Team Familiarization with Standards



Implementation Steps

2. Craft 5-8 Graduation Standards and 5-10 Performance Indicators per Graduation Standard



Implementation Steps

3. Develop rubrics to guide the assessment of student work for each standard



Implementation Steps

4. Complete coverage/gap-analysis

Coverage Matrix

| | 9 | 10 | 11 | 12 | AP | ELO |
|--|---|----|----|----|----|-----|
| Read and comprehend complex literary and informational texts independently and proficiently. | ✓ | | ✓ | ✓ | ✓ | |
| Interpret, analyze, and evaluate complex literary and informational texts. | ✓ | | ✓ | ✓ | ✓ | |
| Writing Produce clear and coherent writing for a range of tasks, purposes, and audiences. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Conduct short and sustained research projects based on focused questions, demonstrating understanding of the subject under investigation. | | ✓ | | ✓ | | |
| Initiate and participate effectively in a range of discussions, responding thoughtfully to diverse perspectives and expressing ideas clearly and persuasively. | | ✓ | ✓ | ✓ | ✓ | |
| Present information, findings, and supporting evidence, conveying a clear and distinct perspective. | | ✓ | ✓ | ✓ | | ✓ |
| Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Implementation Steps

5. For each course, develop a syllabus-like outline of which standards, where, and when these will be covered during the course of the year

Implementation Steps

6. For each unit: list standards addressed, unpack each standard and develop learning targets

Implementation Steps

7. Design daily learning experiences aligned with the learning targets with opportunities for practice, formative assessment, and ongoing feedback to students.

Implementation Steps

8. Where possible, include opportunities for student voice and choice

Implementation Steps

9. When ready, give students the opportunity to engage with a summative assessment task

Implementation Steps

10. Assess the performance against the appropriate rubric



Implementation Steps

1. If the student has met the standard, move on; For students who have not, provide opportunities for interventions and support

THANK YOU
FOR PARTICIPATING!

Alex MacPhail

amacphail@greatschoolspartnership.org