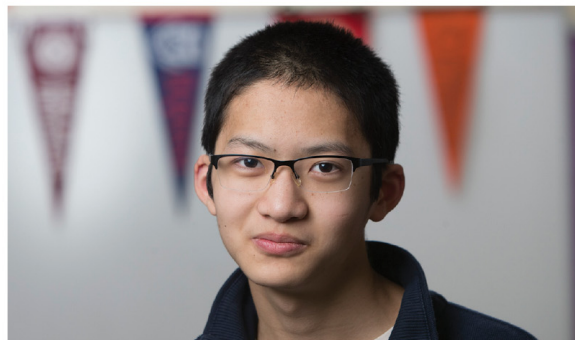


# K-12 Math & ELA Updates

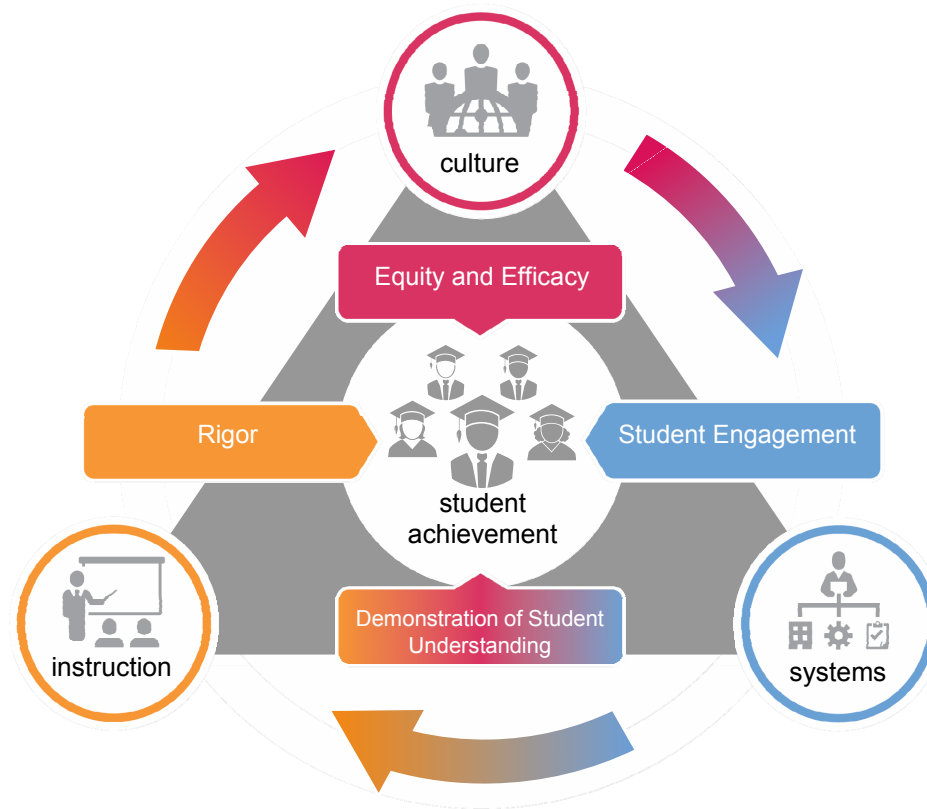


Education Committee  
August 8, 2017

Expect great things.

 Pittsburgh  
Public Schools

# Framework for High Quality Instruction



Expect great things. 

# Instructional Philosophy

- Pittsburgh Public Schools teachers of mathematics **embrace standards-based, high quality instruction** for every school, in every classroom, for every student, every minute of every day. Instructional practices should **actively engage** students in purposeful learning experiences that fosters curiosity, **encourage productive struggle**, while developing a **deep conceptual understanding** of the mathematics outlined in the PA Core Standards. Effective instruction is at the core and ensures that all students learn mathematics in a safe and **culturally responsive** environment.

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 Expect great things.

# Three Key Shifts in Mathematics

In mathematics, the driving evidence and research that informed the design of the standards is also articulated through the three shifts.

## Focus

Strongly where the standards focus. Focus deeply on the major work of each grade so that foundations are solidified.

## Coherence

Think across grades, and link to major topics within grades. Standards are designed around coherent progressions from grade to grade.

## Rigor

In major topics, pursue conceptual understanding and real world application as well as supporting procedural skills and fluency.

 Expect great things.

# Mathematical Practices

The standards for mathematical practice are essential for creating the environment for a strong mathematics classroom.



 Expect great things.

# Curriculum Structure – Scope & Sequence

## 2017–2018 Scope and Sequence Documents

The Scope and Sequence documents contain the unit topic, standards, and essential questions that are to be addressed throughout the school year within given timeframes.

English Language Arts	Mathematics	Science	Social Studies	Arts	World Languages
<a href="#">Kindergarten</a>	<a href="#">Kindergarten</a>	Kindergarten	Kindergarten	Kindergarten Music Kindergarten Visual Arts	<a href="#">Level I</a>
<a href="#">Grade 1</a>	<a href="#">Grade 1</a>	Grade 1	Grade 1	Grade 1 Music Grade 1 Visual Arts	<a href="#">Level II</a>
<a href="#">Grade 2</a>	<a href="#">Grade 2</a>	Grade 2	Grade 2	Grade 2 Music Grade 2 Visual Arts	<a href="#">Level III</a>
<a href="#">Grade 3</a>	<a href="#">Grade 3</a>	Grade 3	Grade 3	Grade 3 Music Grade 3 Visual Arts	
<a href="#">Grade 4</a>	<a href="#">Grade 4</a>	<a href="#">Grade 4</a>	Grade 4	Grade 4 Music Grade 4 Visual Arts	
<a href="#">Grade 5</a>	<a href="#">Grade 5</a>	Grade 5	Grade 5	<a href="#">Grade 5 Music</a> <a href="#">Grade 5 Visual Arts</a>	
<a href="#">Grade 6</a>	<a href="#">Grade 6</a>	Grade 6	Grade 6	Grade 6 Music Grade 6 Visual Arts	
<a href="#">Grade 7</a>	<a href="#">Grade 7</a>	Grade 7	Grade 7	Grade 7 Music Grade 7 Visual Arts	
<a href="#">Grade 8</a>	<a href="#">Grade 8</a>	<a href="#">Grade 8</a>	Grade 8	<a href="#">Grade 8 Music</a> <a href="#">Grade 8 Visual Arts</a>	
<a href="#">English I</a>	<a href="#">Algebra 1</a>	Grade 9	Civics	<a href="#">9-12 General Music</a> <a href="#">9-12 Ensemble Music</a> <a href="#">9-12 Visual Arts</a>	
<a href="#">English II</a>	<a href="#">Geometry</a>	<a href="#">Biology</a>	World History		
English III	<a href="#">Algebra 2</a>	Chemistry	U.S. History		
English IV		Physics			

 Expect great things.

# Scope & Sequence

## Scope and Sequence: Mathematics, Grade 3

Unit Title	Duration	Essential Questions	Standards
<b>Unit 1</b> <i>Place Value, Addition and Subtraction</i>	<b>8/28/2017 - 9/29/2017</b>  <b>23 days</b>	<ul style="list-style-type: none"> <li>How does developing an understanding of place value support problem solving?</li> <li>How are place value, properties of operations, and/or the relationship between addition and subtraction used to solve addition and subtraction problems?</li> </ul>	CC.2.1.3.B.1 M03.A-T.1.1.1 M03.A-T.1.1.2 M03.A-T.1.1.4 CC.2.2.3.A.4 M03.B-O.3.1.1 M03.B-O.3.1.2 M03.B-O.3.1.3 M03.B-O.3.1.5 M03.B-O.3.1.6 M03.B-O.3.1.7
<b>Unit 2</b> <i>Measurement- Time, Money, Area and Perimeter</i>	<b>10/2/2017 - 11/3/2017</b>  <b>23 days</b>	<ul style="list-style-type: none"> <li>What are tools of measurement for time and money and how are they used?</li> <li>What are tools of measurement for perimeter and area and how are they used?</li> </ul>	CC.2.4.3.A.2 M03.D-M.1.1.1 M03.D-M.1.1.2 CC.2.4.3.A.3 M03.D-M.1.3.1 M03.D-M.1.3.2 M03.D-M.1.3.3 CC.2.4.3.A.5 M03.D-M.3.1.1 M03.D-M.3.1.2 CC.2.4.3.A.6 M03.D-M.4.1.1
<b>Unit 3</b> <i>Multiplication and Division</i>	<b>11/6/2017 – 12/15/2017</b>  <b>24 days</b>	<ul style="list-style-type: none"> <li>How do equal shares and equal groups build understanding of multiplication and division?</li> <li>What is the relationship between multiplication and division?</li> </ul>	CC.2.2.3.A.1 M03.B-O.1.1.1 M03.B-O.1.1.2 M03.B-O.1.2.1 M03.B-O.1.2.2 CC.2.2.3.A.2 M03.B-O.2.1.1 M03.B-O.2.1.2 M03.B-O.1.1.1 M03.B-O.1.1.2

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# Curriculum Structure – Unit Plans

## 2017–2018 Unit Planning Documents

The Unit Planning documents contain the standards, enduring understandings, essential questions, content knowledge, skills, assessments, resources, and learning plan that are to be addressed throughout the school year within given timeframes.

English Language Arts	Mathematics	Science	Social Studies	Arts	World Languages
Kindergarten, Unit 1 Kindergarten, Unit 2	<a href="#">Kindergarten, Unit 1</a> <a href="#">Kindergarten, Unit 2</a> <a href="#">Kindergarten, Unit 3</a>	Kindergarten, Unit 1 Kindergarten, Unit 2	Kindergarten, Unit 1 Kindergarten, Unit 2	Kindergarten Music, Unit 1 Kindergarten Visual Arts, Unit 1	Level I
Grade 1, Unit 1 Grade 1, Unit 2	<a href="#">Grade 1, Unit 1</a> <a href="#">Grade 1, Unit 2</a> <a href="#">Grade 1, Unit 3</a>	Grade 1, Unit 1 Grade 1, Unit 2	Grade 1, Unit 1 Grade 1, Unit 2	Grade 1 Music, Unit 1 Grade 1 Visual Arts, Unit 1	Level II
Grade 2, Unit 1 Grade 2, Unit 2	<a href="#">Grade 2, Unit 1</a> <a href="#">Grade 2, Unit 2</a>	Grade 2, Unit 1 Grade 2, Unit 2	Grade 2, Unit 1 Grade 2, Unit 2	Grade 2 Music, Unit 1 Grade 2 Visual Arts, Unit 1	Level III
Grade 3, Unit 1 Grade 3, Unit 2	<a href="#">Grade 3, Unit 1</a> <a href="#">Grade 3, Unit 2</a>	Grade 3, Unit 1 Grade 3, Unit 2	Grade 3, Unit 1 Grade 3, Unit 2	Grade 3 Music, Unit 1 Grade 3 Visual Arts, Unit 1	
Grade 4, Unit 1 Grade 4, Unit 2	<a href="#">Grade 4, Unit 1</a> <a href="#">Grade 4, Unit 2</a>	Grade 4, Unit 1 Grade 4, Unit 2	Grade 4, Unit 1 Grade 4, Unit 2	Grade 4 Music, Unit 1 Grade 4 Visual Arts, Unit 1	
Grade 5, Unit 1 Grade 5, Unit 2	<a href="#">Grade 5, Unit 1</a> <a href="#">Grade 5, Unit 2</a>	Grade 5, Unit 1 Grade 5, Unit 2	Grade 5, Unit 1 Grade 5, Unit 2	Grade 5 Music, Unit 1 Grade 5 Visual Arts, Unit 1	
Grade 6, Unit 1 Grade 6, Unit 2	<a href="#">Grade 6, Unit 1</a> <a href="#">Grade 6, Unit 2</a> <a href="#">Grade 6, Unit 3</a> <a href="#">Grade 6, Unit 4</a> <a href="#">Grade 6, Unit 5</a> <a href="#">Grade 6, Unit 6</a>	Grade 6, Unit 1 Grade 6, Unit 2	Grade 6, Unit 1 Grade 6, Unit 2	Grade 6 Music, Unit 1 Grade 6 Visual Arts, Unit 1	
Grade 7, Unit 1 Grade 7, Unit 2	<a href="#">Grade 7, Unit 1</a> <a href="#">Grade 7, Unit 2</a> <a href="#">Grade 7, Unit 3</a> <a href="#">Grade 7, Unit 4</a> <a href="#">Grade 7, Unit 5</a>	Grade 7, Unit 1 Grade 7, Unit 2	Grade 7, Unit 1 Grade 7, Unit 2	Grade 7 Music, Unit 1 Grade 7 Visual Arts, Unit 1	
Grade 8, Unit 1 Grade 8, Unit 2	<a href="#">Grade 8, Unit 1</a> <a href="#">Grade 8, Unit 2</a>	Grade 8, Unit 1 Grade 8, Unit 2	Grade 8, Unit 1 Grade 8, Unit 2	Grade 8 Music, Unit 1 Grade 8 Visual Arts, Unit 1	

 Expect great things.

# Unit Plans

Standards	
<b>PA Core Standards</b> CC.2.1.3.B.1, CC.2.2.3.A.4, CC.2.2.3.A.1, CC.2.2.3.A.2  <b>Eligible Content</b> M03.B-O.1.1.1, M03.B-O.1.1.2, M03.B-O.1.2.1, M03.B-O.1.2.2, M03.B-O.2.1.1, M03.B-O.2.1.2, M03.B-O.1.1.1, M03.B-O.1.1.2, M03.A-T.1.1.3, M03.B-O.3.1.1, M03.B-O.3.1.6, M03.B-O.3.1.7, M03.B-O.3.1.5  <b>Standards of Mathematical Practices</b> SMP.1, SMP.2, SMP.3, SMP.4, SMP.5, SMP.6, SMP.7, SMP.8	
<b>Understandings</b> <ul style="list-style-type: none"> <li>Numbers can be written in multiple forms: standard, expanded, and word form.</li> <li>Mathematical properties provide a means of decomposing and composing numbers to add and subtract more efficiently.</li> <li>When solving problems, solutions can be exact or estimates.</li> <li>Estimates provide a means for checking for reasonableness of a solution.</li> </ul>	<b>Essential Questions</b> <ul style="list-style-type: none"> <li>How can numbers be written?</li> <li>How and when do we round numbers?</li> <li>How are place value, properties of operations, and/or the relationship between addition and subtraction used to solve addition and subtraction problems?</li> <li>How does developing an understanding of place value support problem solving?</li> </ul>
<b>Content Knowledge</b> <p>A place value chart is made up of periods. Each period contains ones, tens and hundreds. The place a digit lies determines the digit's value. The value of a number can be written in multiple forms. Numbers can be rounded to provide estimated solutions.</p> <ul style="list-style-type: none"> <li><b>Key terms:</b> compare, order, round, estimate, place value, digit, value, strategy, Associative and Commutative Property, expanded form, word form, standard form</li> </ul>	<b>Skills</b> <ul style="list-style-type: none"> <li>Use a number line and/or hundreds chart to represent simple addition and subtraction problems.</li> <li>Pronounce and/or write numbers in word form, standard form and expanded form, limit numbers up to six-digits.</li> <li>Solve two-step word problems.</li> <li>Provide oral and write arguments that supports a solution.</li> <li>Round two- and three-digit numbers to the nearest ten and/or hundred.</li> <li>Reason abstractly and quantitatively.</li> </ul>

## Place Value, Addition and Subtraction Mathematics/Mathematics 3, Grade 3, Unit 1

*Time frame: 8/28/2017 – 10/06/2017:*

 Expect great things.

# Learning Plan

Performance Assessment(s) <i>Description</i>	Additional Assessment Evidence
<ul style="list-style-type: none"> <li>Exemplar Tasks A &amp; B</li> <li>Cornerstone</li> <li>Performance Task : Round to 50 or 500</li> </ul>	<ul style="list-style-type: none"> <li>Unit Checkpoints</li> <li>Exemplar Tasks: Open-ended Problem Solving</li> <li>Exit Slips</li> </ul>
Learning Plan	
<p><b>Investigation 1 – Place Value</b></p> <p>A. <a href="#">Hundreds</a></p> <p>B. <a href="#">Thousands</a></p> <p>C. <a href="#">Greater Numbers</a></p> <p>D. <a href="#">Checkpoint 1</a></p> <p>E. <a href="#">Comparing and Ordering Numbers</a></p> <p>F. <a href="#">Problem Solving</a></p> <p>G. <a href="#">Rounding to Tens</a></p> <p>H. <a href="#">Rounding Hundreds</a></p> <p>I. <a href="#">Estimating Sums</a></p> <p>J. <a href="#">Checkpoint 2</a></p> <p><b>Investigation 2 - Addition</b></p> <p>K. <a href="#">Problem Solving with Estimations</a></p> <p>L. <a href="#">Modeling for Adding 3-Digit Numbers</a></p> <p>M. <a href="#">Adding with Expanded Form</a></p> <p>N. <a href="#">Adding 3-Digit Numbers</a></p> <p>O. <a href="#">Adding 3 or More Numbers</a></p> <p>P. <a href="#">eV Topic 1 Performance Task</a></p> <p>Q. <a href="#">Checkpoint</a></p> <p><b>Investigation 3 - Subtraction</b></p> <p>R. <a href="#">Subtraction Meaning</a></p> <p>S. <a href="#">Estimating Differences</a></p> <p>T. <a href="#">Problem Solving</a></p> <p>U. <a href="#">Subtracting 2 and 3 Digit Numbers with Models</a></p> <p>V. <a href="#">Subtracting 2 and 3 Digit Numbers with Regrouping</a></p> <p>W. <a href="#">Subtracting Over Zero Part 1</a></p> <p>X. <a href="#">Subtracting Over Zero Part 2</a></p> <p>Y. <a href="#">Unit Assessment</a></p>	

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# Standards/Resources

Cornerstone Task
<p><b>Standards</b></p> <p>CC.2.1.3.B.1 - Apply place-value understanding and properties of operations to perform multi-digit arithmetic</p> <p>CC.2.2.3.A.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic</p> <p><b>Eligible Content</b></p> <p>M03.A-T.1.1.1 Round two- and three-digit whole numbers to the nearest ten or hundred, respectively.</p> <p>M03.A-T.1.1.2 Add two- and three-digit whole numbers (limit sums from 100 through 1,000) and/or subtract two- and three-digit</p> <p>M03.A-T.1.1.4 Order a set of whole numbers from least to greatest or greatest to least (up through 9,999, and limit sets to no more than four numbers)</p> <p>M03.B-O.3.1.1 Solve two-step word problems using the four operations (expressions are not explicitly stated). Limit to problems with whole numbers and having whole-number answers.</p> <p>M03.B-O.3.1.3 Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.</p> <p>M03.B-O.3.1.6 Create or match a story to a given combination of symbols (+, −, ×, ÷, , and =) and numbers.</p> <p>M03.B-O.3.1.7 Identify the missing symbol (+, −, ×, ÷, , and =) that makes a number sentence true.</p> <p><b>Learning Resources</b></p> <p>Everyday Math 3 enVision <a href="#">Exemplars</a> <a href="#">Illustrative Mathematics</a> <a href="#">Learn Zillion</a></p>

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# Instructional Framework – Elementary Schools

ELEMENTARY SCHOOL MATHEMATICS INSTRUCTIONAL FRAMEWORK <i>1 Lesson &amp; Differentiated Centers</i>																
ACTIVITY	DESCRIPTION	TIMEFRAME**														
<b>Lesson Opener &amp; Launch</b>	<p><b>Whole group INTERACTIVE Discourse</b> is when teachers present a problem scenario that allows them to probe and check for background knowledge and student understanding.</p> <p>This can include:</p> <table><tr><td>- An attention grabber</td><td><b>Warm-up</b></td></tr><tr><td>- Background probing</td><td>- Number Talks (3 times a week minimum)</td></tr><tr><td>- Discussion Fostering</td><td>- Count Around the Circle</td></tr><tr><td>- Key Concept Preview</td><td>- Choral Counts</td></tr><tr><td>- Vocabulary Discussion/ Infusion</td><td>- Start and Stop Counting</td></tr><tr><td>- Intro to Focus Question</td><td>- Today's Number</td></tr><tr><td>- Prior Knowledge Connecting</td><td></td></tr></table>	- An attention grabber	<b>Warm-up</b>	- Background probing	- Number Talks (3 times a week minimum)	- Discussion Fostering	- Count Around the Circle	- Key Concept Preview	- Choral Counts	- Vocabulary Discussion/ Infusion	- Start and Stop Counting	- Intro to Focus Question	- Today's Number	- Prior Knowledge Connecting		<b>10-20 Minutes</b>
- An attention grabber	<b>Warm-up</b>															
- Background probing	- Number Talks (3 times a week minimum)															
- Discussion Fostering	- Count Around the Circle															
- Key Concept Preview	- Choral Counts															
- Vocabulary Discussion/ Infusion	- Start and Stop Counting															
- Intro to Focus Question	- Today's Number															
- Prior Knowledge Connecting																
<b>Key Concepts &amp; Exploration</b>	<p><b>Whole group INTERACTIVE instruction</b> The beginning of the lesson should elicit the students' attention and focus their thoughts on the learning objective. Students should be engaged in solving mathematical problems and communicating their understanding.</p> <p>Suggestions of activities include:</p> <ul style="list-style-type: none"><li>- Student Exploration/Group Work</li><li>- Examples/Note-Taking</li><li>- Provide rationale &amp; relevance and connect with prior knowledge</li><li>- Model Problems &amp; Problem Solving Strategies</li><li>- Encourage Mathematics Discourse</li><li>- Higher Order Questioning</li><li>- Correct Misconceptions</li><li>- Identify and Support Struggling Learners</li><li>- Infuse Technology (If In-class terminals are available)</li></ul> <p>Teachers should work with small groups of students during examples to guide understanding.</p>	<b>20-30 Minutes</b>														

<b>Closure</b>	<p>The <b>closure</b> is the end of the lesson and you should check for understanding and students are guided to internalize the new learning. Clarify key points of a lesson, require students to actively construct their own understanding, and/or engage them in considering and evaluating multiple perspectives.</p> <ul style="list-style-type: none"> <li>- Revisit Focus Question/Summarize Learning</li> <li>- Resolve Questions &amp; Problems</li> <li>- Journal Writing/Reflections</li> <li>- Connect to Essential Questions</li> <li>- Exit Slip/House Keeping</li> <li>- Preview Home-Learning</li> </ul>	<b>5-10 Minutes</b>
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 Expect great things.

# Instructional Framework – Elementary Schools

<b>Additional Differentiated Instruction</b>	<p>Students work independently, in pairs, or small groups to further develop, reinforce or enhance previously learned concepts. This is a dedicated time each day to provide differentiated instruction.</p> <p>Suggestion of activities include:</p> <p><b>Teacher Directed</b> - teacher provides explicit instruction to small group and guide student success. Can do the following:</p> <ul style="list-style-type: none"><li>- Intensive Instruction</li><li>- Remediation</li><li>- Data Chats</li><li>- Model Lesson</li><li>- Student Conferencing</li></ul> <p><b>Independent Work</b> – Students are given the opportunity to work independently (“YOU DO”). This will be based on the lesson taught previously.</p> <p>Suggestions of activities include:</p> <ul style="list-style-type: none"><li>- Mixed Review</li><li>- Topic Reviews</li><li>- Problem Solving</li><li>- Edmentum Assessments</li><li>- Tutorials</li></ul> <p><b>Intervention/Technology</b> – Students are given the opportunity to work on computer –based programs and on-line Edmentum tutorial such as:</p> <ul style="list-style-type: none"><li>- Intervention lessons</li><li>- Edmentum Adaptive Path</li><li>- Edmentum Prescribed Lesson (Grade-Level Content)</li></ul>	<b>20-30 Minutes</b>
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—  Expect great things.

# Instructional Framework – Middle Schools

## MIDDLE SCHOOL MATHEMATICS INSTRUCTIONAL FRAMEWORK *1 Lesson & Differentiated Centers*

ACTIVITY	DESCRIPTION	TIMEFRAME
<b>Lesson Opener &amp; Launch</b>	<p><b>Whole group INTERACTIVE Discourse</b> is when teachers present a problem scenario that allows them to probe and check for background knowledge and student understanding.</p> <p>This can include:</p> <ul style="list-style-type: none"> <li>- An attention grabber</li> <li>- Background probing</li> <li>- Discussion Fostering</li> <li>- Key Concept Preview</li> <li>- Vocabulary Discussion/Infusion</li> <li>- Intro to Focus Question</li> <li>- Prior Knowledge Connecting</li> </ul>	<b>5-10 Minutes</b>
<b>Key Concepts &amp; Exploration</b>	<p><b>Whole group INTERACTIVE instruction</b> The beginning of the lesson should elicit the students' attention and focus their thoughts on the learning objective. Students should be engaged in solving mathematical problems and communicating their understanding.</p> <p>Suggestions of activities include:</p> <ul style="list-style-type: none"> <li>- Student Exploration</li> <li>- Examples/Note-Taking</li> <li>- Provide rationale &amp; relevance and connect with prior knowledge</li> <li>- Model Problems &amp; Problem Solving Strategies</li> <li>- Encourage Mathematics Discourse</li> <li>- Higher Order Questioning</li> <li>- Correct Misconceptions</li> <li>- Identify and Support Struggling Learners</li> <li>- Infuse Technology (If In-class terminals are available)</li> </ul> <p>Teachers should work with small groups of students during examples to guide understanding.</p>	<b>25-30 Minutes</b>

## Differentiated Instruction/Intervention

Time-Frame/Group	1 <sup>st</sup> Activity	2 <sup>nd</sup> Activity
<b>20 Minutes Group A</b>	<p><b>Independent Work</b> – Students are given the opportunity to work independently (“YOU DO”). This will be based on the lesson taught previously.</p> <p>Suggestions of activities include:</p> <ul style="list-style-type: none"> <li>- Mixed Review</li> <li>- Topic Reviews</li> <li>- Problem Solving</li> <li>- Edmentum Assessments</li> <li>- Tutorials</li> </ul> <p><b>Teacher Directed</b> – teacher provides explicit instruction to small group and guide student success.</p>	<p><b>Intervention/Technology</b> – Students are given the opportunity to work on computer –based programs and on-line Edmentum tutorial such as:</p> <ul style="list-style-type: none"> <li>- Intervention lessons, Edmentum Adaptive Path, Edmentum Prescribed Lesson (Grade-Level Content)</li> </ul>
<b>20 Minutes Group B</b>	<p><b>Intervention/Technology</b> – Students are given the opportunity to work on computer –based programs and on-line Edmentum tutorial such as:</p> <ul style="list-style-type: none"> <li>- Intervention lessons, Edmentum Adaptive Path, Edmentum Prescribed Lesson (Grade-Level Content)</li> </ul>	<p><b>Independent Work</b> – Students are given the opportunity to work independently (“YOU DO”). This will be based on the lesson taught previously.</p> <p>Suggestions of activities include:</p> <ul style="list-style-type: none"> <li>- Mixed Review</li> <li>- Topic Reviews</li> <li>- Problem Solving</li> <li>- Edmentum Assessments</li> <li>- Tutorials</li> </ul> <p><b>Teacher Directed</b> – teacher provides explicit instruction to small group and guide student success. Can do the following:</p>

 Expect great things.

# Instructional Framework – Middle Schools

<b>Closure</b>	<p>The <b>closure</b> is the end of the lesson and you should check for understanding and students are guided to internalize the new learning. Clarify key points of a lesson, require students to actively construct their own understanding, and/or engage them in considering and evaluating multiple perspectives.</p> <ul style="list-style-type: none"><li>- Revisit Focus Question/Summarize Learning</li><li>- Resolve Questions &amp; Problems</li><li>- Journal Writing/Reflections</li><li>- Connect to Essential Questions</li><li>- Exit Slip/House Keeping</li><li>- Preview Home-Learning</li></ul>	<b>5-10 Minutes</b>
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 Expect great things.

# Instructional Framework – High Schools

HIGH SCHOOL MATHEMATICS INSTRUCTIONAL FRAMEWORK <i>Single/Split Lesson Delivery</i>		
ACTIVITY	DESCRIPTION	TIMEFRAME**
<b>Lesson Opener &amp; Launch</b>	<p><b>Whole group INTERACTIVE Discourse</b> is when teachers present a problem scenario that allows them to probe and check for background knowledge and student understanding.</p> <p>This can include:</p> <ul style="list-style-type: none"> <li>- An attention grabber</li> <li>- Background probing</li> <li>- Discussion Fostering</li> <li>- Key Concept Preview</li> <li>- Vocabulary Discussion/Infusion</li> <li>- Intro to Focus Question</li> <li>- Prior Knowledge Connecting</li> </ul>	<b>3-5 Minutes</b>
<b>Key Concepts &amp; Exploration</b>	<p><b>Whole group INTERACTIVE instruction</b> The beginning of the lesson should elicit the students' attention and focus their thoughts on the learning objective. Students should be engaged in solving mathematical problems and communicating their understanding.</p> <p>Suggestions of activities include:</p> <ul style="list-style-type: none"> <li>- Student Exploration</li> <li>- Examples/Note-Taking</li> <li>- Provide rationale &amp; relevance and connect with prior knowledge</li> <li>- Model Problems &amp; Problem Solving Strategies</li> <li>- Encourage Mathematics Discourse</li> <li>- Higher Order Questioning</li> <li>- Correct Misconceptions</li> <li>- Identify and Support Struggling Learners</li> <li>- Infuse Technology (If In-class terminals are available)</li> </ul> <p>Teachers should work with small groups of students during examples to guide understanding.</p>	<b>30-35 Minutes</b>

<b>Closure</b>	<p>The <b>closure</b> is the end of the lesson and you should check for understanding and students are guided to internalize the new learning. Clarify key points of a lesson, require students to actively construct their own understanding, and/or engage them in considering and evaluating multiple perspectives.</p> <ul style="list-style-type: none"> <li>- Revisit Focus Question/Summarize Learning</li> <li>- Resolve Questions &amp; Problems</li> <li>- Journal Writing/Reflections</li> <li>- Connect to Essential Questions</li> <li>- Exit Slip/House Keeping</li> <li>- Preview Home-Learning</li> </ul>	<b>3-5 Minutes</b>
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\* As a result of time constraints, a typical lesson can take two instructional days. Teachers should plan stopping points accordingly.

\* Technology opportunity should be scheduled once a week whenever possible.

\*\*Timeframes flexible within activity.

 Expect great things.

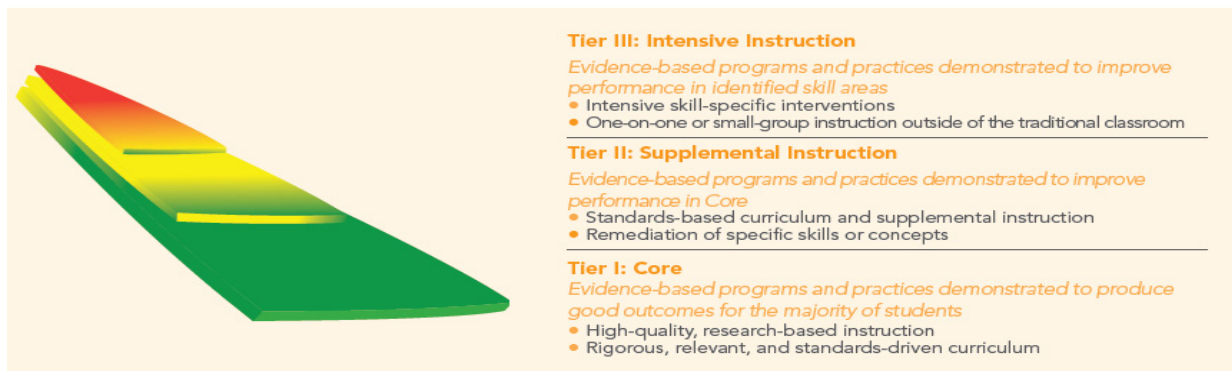


## Multi-tiered framework for all students

Edmentum provides self-paced, personalized instruction that accommodates the Multi-Tiered System of Support (MTSS) model established by each State Education Agency. Our instructional tools provide real-time progress monitoring features that support data-driven decision making, and curriculum and assessment tools that pinpoint and address student needs. Edmentum's suite of solutions help educators identify students who are at risk, monitor ongoing progress, plan evidence-based support, and adjust instruction as needed.

### The Edmentum difference:

- Proven, research-based content and solutions
- Real-time reporting that tracks progress and pinpoints areas of weakness so that educators can appropriately and effectively intervene
- Flexible assessment tools that provide a personalized learning experience
- Ideal for whole-class, small-group, and intensive individualized support



 Expect great things.

# Communication Plan

## Secondary Book Adoption

- Communication Department
  - When will the adoption take place?
  - Why was it postponed?
  - What does this mean for teachers?
  - What does this mean for students?
- Methods of Communication
  - Share the information in the weekly principal update
  - Send an email to the impacted teachers
  - Post something to our Facebook page or website

## Discontinuation of Technology Programs

- ST Math, First in Math, Think Through Math (TTM), Compass Learning
- Email established and sent to the DS for dissemination

# ELA Instructional Philosophy

## What We Believe About Literacy

- We believe that it is essential for teaching of literacy to include **a balance of reading, writing, speaking and listening activities** with a variety of **instructional strategies to meet the needs of all learners**.
- Literacy instruction is to be instructed in the context of **authentic literature** which involves interaction with the student and the teacher and the student and their peers with a variety of text types. This instruction happens at its best with a **blend of small group, whole group, and individual instruction**.
- Additionally, teachers need to scaffold student learning to ensure students are learning rigorous curriculum but at the zone of proximal development to meet the needs of every learner. We take pride in developing out teachers to be reflective in their practice and stay current in **best practices for continuous improvement**.

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 **Expect great things.**

# Five High Impact Literacy Practices Aligned to the Standards

**T** - *Text Selection*

**E** - *Evidence-based Writing*

**A** - *Asking and Answering Questions*

**C** - *Close Reading*

**H** - *Habits of Discussion*

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# Curriculum Structure – Scope & Sequence

## 2017–2018 Scope and Sequence Documents

The Scope and Sequence documents contain the unit topic, standards, and essential questions that are to be addressed throughout the school year within given timeframes.

English Language Arts	Mathematics	Science	Social Studies	Arts	World Languages
<a href="#">Kindergarten</a>	<a href="#">Kindergarten</a>	Kindergarten	Kindergarten	Kindergarten Music Kindergarten Visual Arts	<a href="#">Level I</a>
<a href="#">Grade 1</a>	<a href="#">Grade 1</a>	Grade 1	Grade 1	Grade 1 Music Grade 1 Visual Arts	<a href="#">Level II</a>
<a href="#">Grade 2</a>	<a href="#">Grade 2</a>	Grade 2	Grade 2	Grade 2 Music Grade 2 Visual Arts	<a href="#">Level III</a>
<a href="#">Grade 3</a>	<a href="#">Grade 3</a>	Grade 3	Grade 3	Grade 3 Music Grade 3 Visual Arts	
<a href="#">Grade 4</a>	<a href="#">Grade 4</a>	<a href="#">Grade 4</a>	Grade 4	Grade 4 Music Grade 4 Visual Arts	
<a href="#">Grade 5</a>	<a href="#">Grade 5</a>	Grade 5	Grade 5	<a href="#">Grade 5 Music</a> <a href="#">Grade 5 Visual Arts</a>	
<a href="#">Grade 6</a>	<a href="#">Grade 6</a>	Grade 6	Grade 6	Grade 6 Music Grade 6 Visual Arts	
<a href="#">Grade 7</a>	<a href="#">Grade 7</a>	Grade 7	Grade 7	Grade 7 Music Grade 7 Visual Arts	
<a href="#">Grade 8</a>	<a href="#">Grade 8</a>	<a href="#">Grade 8</a>	Grade 8	<a href="#">Grade 8 Music</a> <a href="#">Grade 8 Visual Arts</a>	
<a href="#">English I</a>	<a href="#">Algebra 1</a>	Grade 9	Civics	<a href="#">9-12 General Music</a> <a href="#">9-12 Ensemble Music</a> <a href="#">9-12 Visual Arts</a>	
<a href="#">English II</a>	<a href="#">Geometry</a>	<a href="#">Biology</a>	World History		
English III	<a href="#">Algebra 2</a>	Chemistry	U.S. History		
English IV		Physics			

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# Scope & Sequence

## Scope and Sequence for K-5 Literacy Grade K

Unit Title (at least four: 1 per grading period)	Dates (specific dates)	Essential Question(s)	Standards (number only, separated by commas)
<b>1</b> <b><i>Living Together: This is Home</i></b>	8/28/17 – 10/10/17	<ul style="list-style-type: none"> <li>How do readers use both words and illustrations to understand stories?</li> <li>How do writers use both illustrations and words about events to tell a story?</li> <li>How do readers use text evidence to answer questions about informational texts?</li> <li>How do writers explain information about a topic?</li> </ul>	<b>Reading Literature</b> CC.1.3.K.A, CC.1.3.K.C, CC.1.3.K.B, CC.1.3.K.F, CC.1.3.K.E, CC.1.3.K.D, CC.1.3.K.G, CC.1.3.K.H, CC.1.3.K.K, CC.1.3.K.C, CC.1.3.K.J <b>Reading Informational Text</b> CC.1.2.K.G, CC.1.2.K.K, CC.1.2.K.J, CC.1.2.K.A, CC.1.2.K.B, CC.1.2.K.C, CC.1.2.K.F, CC.1.2.K.F, CC.1.2.K.G, CC.1.2.K.H, CC.1.2.K.I, CC.1.2.K.E, CC.1.2.K.K, CC.1.2.K.L <b>Speaking &amp; Listening</b> CC.1.5.K.A, CC.1.5.K.C, CC.1.5.K.D, CC.1.5.K.F, CC.1.5.K.E, CC.1.5.K.G, CC.1.3.K.I, CC.1.5.K.A, CC.1.5.K.C, CC.1.5.K.D, CC.1.5.K.F, CC.1.5.K.B, CC.1.5.K.E, CC.1.5.K.G <b>Writing</b> CC.1.4.K.L, CC.1.4.K.R, CC.1.4.K.G, CC.1.4.K.M, CC.1.4.K.N, CC.1.4.K.O, CC.1.4.K.P, CC.1.4.K.F, CC.1.4.K.T, CC.1.4.K.U, CC.1.4.K.V, CC.1.4.K.X, CC.1.4.K.A, CC.1.4.K.T, CC.1.4.K.U, CC.1.4.K.V, CC.1.4.K.E, CC.1.4.K.F, CC.1.4.K.G CC.1.4.K.W, CC.1.4.K.B, CC.1.4.K.C, CC.1.4.K.CC.1.4. K.H, CC.1.4.K.I, CC.1.4.K.J, CC.1.4.K.L, CC.1.4.K.X <b>Foundational Skills</b> CC.1.1.K.B, CC.1.1.K.C, CC.1.1.K.D, CC.1.1.K.E, CC.1.1.K.B, CC.1.1.K.D, CC.1.1.K.E, CC.1.1.K.A, CC.1.1.K

 Expect great things.

# Unit Plans

## Connecting Our World ELA: Grade 1 Unit 1

*Time frame August 28-October 10:*

Standards	
CC.1.3.1.A, CC.1.3.1.B, CC.1.3.1.C, CC.1.3.1.E, CC.1.3.1.F, CC.1.3.1.G, CC.1.3.1.H, CC.1.3.1.I, CC.1.3.1.J, CC.1.3.1.K, CC.1.2.1.K, CC.1.2.1.J, CC.1.4.1.E, CC.1.4.1.M, CC.1.4.1.T, CC.1.4.1.U, CC.1.4.1.N, CC.1.4.1.O, CC.1.4.1.P, CC.1.4.1.Q, CC.1.4.1.R, CC.1.4.1.X, CC.1.1.1.B, CC.1.1.1.C, CC.1.1.1.D, CC.1.1.1.E, CC.1.2.1.B, CC.1.2.1.A, CC.1.2.1.C, CC.1.2.1.E, CC.1.2.1.G, CC.1.2.1.I, CC.1.2.1.L, CC.1.2.1.F, CC.1.2.1.J, CC.1.2.1.K, CC.1.1.1.B, CC.1.1.1.C, CC.1.1.1.D, CC.1.1.1.E	
Understandings	Essential Questions
Students will understand that . . . <ul style="list-style-type: none"> <li>they improve their comprehension by identifying story elements. CC.1.3.1.C</li> <li>details play a role in explaining the events in a story. CC.1.4.1.M</li> <li>living things depend on one another.</li> <li>Readers understand that informational texts have features that help them determine main topics. CC.1.2.1.A, CC.1.2.1.E</li> <li>informational texts can have a variety of features. CC.1.4.1.G, CC.1.4.1.H, CC.1.4.1.I, CC.1.4.1.J</li> <li>living things have certain behaviors that shape them and allow them to survive.</li> </ul>	Students will keep considering . . . <ul style="list-style-type: none"> <li>How do readers know what makes a good retelling? CC.1.3.1.C</li> <li>How do writers create interesting events? CC.1.4.1.M</li> <li>How do features in informational texts help readers understand the main topic? CC.1.2.1.A, CC.1.2.1.E</li> <li>How does the organizational structure of a text help writers explain information? CC.1.4.1.G, CC.1.4.1.H, CC.1.4.1.I, CC.1.4.1.J</li> <li>How do features in informational texts help readers understand the main topic? CC.1.2.1.A, CC.1.2.1.E</li> <li>How does the organizational structure of a text help writers explain information? CC.1.4.1.G, CC.1.4.1.H, CC.1.4.1.I, CC.1.4.1.J</li> </ul>
Content Knowledge	Skills
<ul style="list-style-type: none"> <li>Readers will retell stories, including key details. CC.1.3.1.C</li> <li>Writers will write a narrative story in which they recount one or more sequenced events. CC.1.4.1.M</li> <li>Learners will recognize that there are relationships among living things.</li> <li>Readers will use features of informational texts to better comprehend what they read. CC.1.2.1.A, CC.1.2.1.E</li> <li>Writers will write questions and answers about animals. CC.1.4.1.G, CC.1.4.1.H, CC.1.4.1.I, CC.1.4.1.J</li> </ul>	<ul style="list-style-type: none"> <li>Retell Stories with Key Details</li> <li>Write Narratives</li> <li>Answer Text-Based Questions</li> <li>Use Text Features in Informational Text</li> <li>Write Informational Text</li> </ul>



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# Elementary ELA Instructional Framework

Time	Block	Resources
15-20 minutes	<b>Word Work</b> Phonemic Awareness/ Phonics K-2 Word Analysis 3-5 *This includes Handwriting	ReadyGen Foundational Skills Lesson Decodable Readers ReadyGen Phonics Workbook Benson Handwriting
40-60 minutes	<b>Reading Workshop</b> Whole Group Reading (Modeled/ Shared) Teacher Led Small Group Student Work Time <ul style="list-style-type: none"> <li>- Technology</li> <li>- Independent Reading with accountability</li> <li>-Word Work/ Fluency</li> </ul>	ReadyGen Whole Group Lessons ReadyGen Analysis Support/ Extension Lessons ReadyGen Small Group Options iLit
30-40 minutes	<b>Writing Workshop</b> Whole Group Writing (Modeled/ Shared) <ul style="list-style-type: none"> <li>-Text-Dependent Analysis</li> <li>-Genre</li> </ul> Independent Writing w/ teacher conferring *This includes Handwriting	ReadyGen Writing Lessons TDA Annotated Samples (District Provided) Benson Handwriting ReadyGen Writing Lessons District Writing Conferring Guide

 Expect great things.

# Instructional Framework K-5

## Sample Literacy Block Schedules

120 minutes

Period 1 (45 mins)		Period 2 (45 mins)	Period 3 (45 mins)
Phonics/ Word Analysis 20 minutes		Reading Workshop 60 minutes	Writing Workshop 40 minutes

90 minutes

Period1 (45 mins)		Period 2 (45 mins)
Phonics/ Word Analysis 15 minutes	Writing Workshop 30 minutes	Reading Workshop 45 minutes

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# Middle School ELA Instructional Framework

Time	Block	Resources
5 minutes	<u>Lesson Opener</u>	College Ready Writers Program Resources Novels MCDugal Hot Text iLit Technology 6-8 Core Classroom Library Writing and Reader Response Notebooks
30 Minutes Text/ Task/ Talk	<u>Whole Group Instruction Text Analysis</u> (Modeled/ Shared) -Close Reading -Writing Mini Lesson *Text-Dependent Analysis *Genre	
40 minutes	<u>Independent Collaborative Work Time</u> Technology - Independent Reading w/ teacher conferring - Independent Writing w/ teacher conferring - Teacher Led Data Driven Small Group Instruction	
5 Minutes	<u>Closure</u>	

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# High School ELA Instructional Framework

Time	Block	Resources
5 minutes	<b>Lesson Opener</b>	Accucess Supplemental Lessons Novel Study (not in core ELA) Scholastic's ID Library  Accucess Supplemental Lessons Classroom Library Writing and Reader Response Notebooks Accucess Supplemental Lessons based on student data
20 Minutes	<b>Whole Group Instruction Text Analysis</b> (Modeled/ Shared) -Close Reading -Writing Mini Lesson *Text-Dependent Analysis *Genre	
20 Minutes	<b>Independent Collaborative Work Time</b> - Technology - Independent Reading w/ teacher conferring - Independent Writing w/ teacher conferring - Teacher Led Data Driven Small Group Instruction	
5 Minutes	<b>Closure</b>	

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# ELA High School Interventions and Assessments

MTSS Tier	HS Placement Assessments	HS Interventions
3	PSSA Keystone Literature HMH (RI) Reading Inventory HMH (PI) Phonics Inventory WIST (PSE)	Read180 System 44 Wilson (PSE) Reading Horizons (PSE)
2	PSSA Keystone Literature Edmentum Accucess Assessment	Edmentum Adaptive Intervention Rev It UP Voyager Lexia Strategies (PSE)
1	PSSA Keystone Literature Edmentum Accucess Assessment	Edmentum Adaptive Intervention

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# ELA Middle School Interventions and Assessments

MTSS Tier	MS Placement Assessments	MS Interventions
3	PSSA Computer-based GRADE HMH (RI) Reading Inventory HMH (PI) Phonics Inventory WIST (PSE)	Read180 System 44 Read Naturally Wilson (PSE) Reading Horizons (PSE)
2	PSSA Computer-based GRADE HMH (RI) Reading Inventory HMH (PI) Phonics Inventory	Read180 Rev it Up iLit Lit Navigator Lexia Strategies (PSE)
1	PSSA Computer-based GRADE	iLit Lit Navigator Tier 1 Extension Options Novel Rev It Up

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# ELA Elementary School Interventions and Assessments

MTSS Tier	ES Placement Assessments	ES Interventions
3	DIBELS Next K-5 DIBELS Next Survey Level (PSE) Computer-based GRADE Grades 3-5 Phonological Awareness Screener for Intervention (PASI) Phonics Screener for Intervention (PSI) WIST (PSE)	iLit 45 iRead K-2 Reading Resource Binder Power Readers/ Super Chargers Read Naturally Read Well (PSE) Reading Horizons (PSE) Wilson (Grades 2-5, PSE)
2	DIBELS Next K-5 DIBELS Next Survey Level (PSE) Computer-based GRADE Grades 3-5 Phonological Awareness Screener for Intervention (PASI) Phonics Screening for Intervention (PSI)	iLit 20 iRead K-2 Reading Resource Binder Read Naturally Corrective Reading B1 and B2 Lit Navigator Just Words (Grades 4-5) Lexia Core 5 (PSE)
1	Kindergarten Readiness DIBELS Next K-5 iRead Screener K-2 Computer-based GRADE Grades 3-5	iLit 20 iRead Tier 1 extension options Novels Lit Navigator

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# Assessments Grade 3-8



In iLit, the *Group Reading Assessment and Diagnostic Evaluation* (GRADE™) is used as a diagnostic assessment for placement and to get an independent measurement of reading growth. GRADE is research-based, norm referenced, and NCRTI (National Center for Response to Intervention) approved.

Every GRADE assessment contains multiple sections, or subtests. Each subtest contains questions, or items, designed to measure specific skills that are developmentally appropriate for that level.

Depending on students' ages and abilities, it takes about 70 minutes to administer. Testing can be done in one session or in multiple, shorter sessions to allow for breaks. We recommend administering the first half of GRADE on one day and the second half on the next day.

GRADE includes these four subtests:

- Vocabulary – measures word decoding and vocabulary knowledge
- Sentence Comprehension – measures ability to comprehend a sentence as a whole or a complete thought
- Listening Comprehension – measures understanding of spoken language
- Passage Comprehension – measures ability to comprehend extended text as a whole

These assessment measures provide the following:

- Overall GLE (Grade Level Equivalent) Reading Level
- GLE for Reading Comprehension
- GLE for Vocabulary
- Stanine scores (9-point scale, with 9 being the highest score) for Sentence Comprehension, Passage Comprehension, Listening Comprehension, and Vocabulary

In iLit, GRADE is administered and scored digitally. The results are available immediately. It is used to assess students three times a year: the beginning of the year, mid-year, and at the end of the year.

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# Assessments 9-11

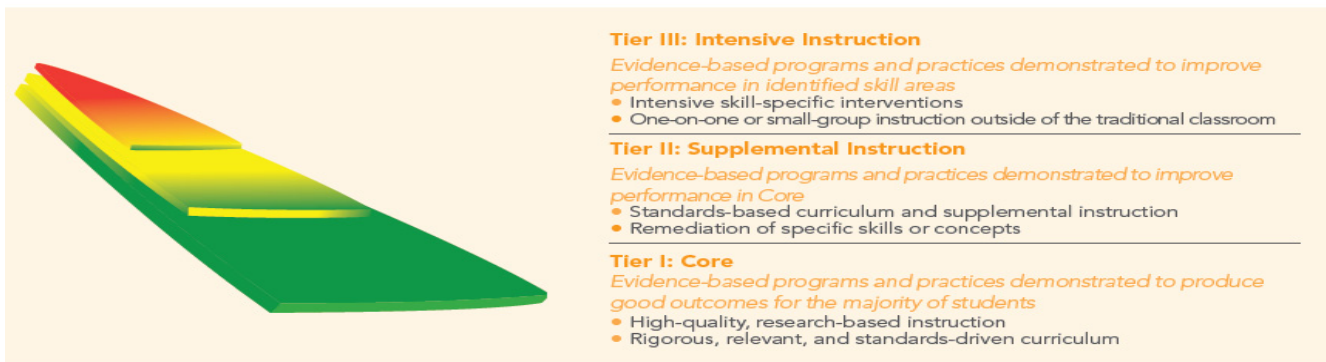


## Multi-tiered framework for all students

Edmentum provides self-paced, personalized instruction that accommodates the Multi-Tiered System of Support (MTSS) model established by each State Education Agency. Our instructional tools provide real-time progress monitoring features that support data-driven decision making, and curriculum and assessment tools that pinpoint and address student needs. Edmentum's suite of solutions help educators identify students who are at risk, monitor ongoing progress, plan evidence-based support, and adjust instruction as needed.

## The Edmentum difference:

- Proven, research-based content and solutions
- Real-time reporting that tracks progress and pinpoints areas of weakness so that educators can appropriately and effectively intervene
- Flexible assessment tools that provide a personalized learning experience
- Ideal for whole-class, small-group, and intensive individualized support



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## 8 Reading Specialists

- Arlington
- Arsenal K-8
- Faison
- King
- Langley
- Lincoln
- Minadeo
- Weil

Target Grade Levels 1-3<sup>rd</sup> Grade

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# Social Studies Instructional Frameworks

Time	Block	
5 minutes	Lesson Opener	<p><b>Student:</b></p> <ul style="list-style-type: none"> <li>✓ Engages in guided practice</li> <li>✓ Participates in conversations with teacher and peers using language of the standards</li> <li>✓ Organizes work session materials and tools</li> <li>✓ Asks clarifying questions</li> </ul> <p><b>Student:</b></p> <ul style="list-style-type: none"> <li>✓ Engages in independent or collaborative learning</li> <li>✓ Demonstrates proficiency on skills and concepts related to content standards; expresses and defends views on historical or current events</li> <li>✓ Completes conceptually rich performance tasks, research and guided practice</li> </ul>
15 minutes	<p><b>Whole Group Instruction</b></p> <p><b>Teacher:</b></p> <ul style="list-style-type: none"> <li>✓ Provides guided student practice</li> <li>✓ Engages students in lesson-specific discussion; Offers opportunities to speculate about known and unknown motives and actions of historical figures</li> <li>✓ Introduces organizing tools</li> <li>✓ Reviews learning targets, success criteria and expectations for work session</li> </ul>	
20 minutes	<p><b>Work Time</b></p> <p><b>Teacher:</b></p> <ul style="list-style-type: none"> <li>✓ Facilitates independent and small group work; scaffolds learning task</li> <li>✓ Purposefully assigns collaborative groups and differentiates tasks</li> <li>✓ Monitors, assesses and documents student progress and provides ongoing, standards-based feedback</li> <li>✓ Provides individual and small group instruction based on data</li> <li>✓ Maintains classroom environment conducive to productivity and engagement</li> </ul>	
5 Minutes	Closure	

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# The Document-Based Question (DBQ) Project Method™

**The DBQ Project 6-Step Method underpins the design of all our DBQs and Mini-Qs. Each step builds on students' curiosity and increases motivation and confidence to answer a compelling, authentic question.**

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Expect great things. 



  
**Expect**  
**great**  
things