



# Georgia's K-12 Mathematics Standards Curriculum Map

*Implementation beginning Fall 2023*

**GRADE 3**

# GRADE 3 CURRICULUM MAP

## Georgia's K-12 Mathematics Standards GRADE 3

Semester 1				Semester 2				
Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9
Building a Strong Foundation	Exploring Multiplication	Relating Multiplication to Division	Place Value, Addition & Subtraction up to 10,000	Two-Step Problems and Time	Fractions as Numbers	Connecting Length, Perimeter, and Area	Two-Dimensional Shapes	Culminating Capstone Unit
<a href="#">Interdisciplinary Connection</a>	<a href="#">Interdisciplinary Connection</a>	<a href="#">Interdisciplinary Connection</a>	<a href="#">Interdisciplinary Connection</a>	<a href="#">Interdisciplinary Connection</a>	<a href="#">Interdisciplinary Connection</a>	<a href="#">Interdisciplinary Connection</a>	<a href="#">Interdisciplinary Connection</a>	
<b>2 - 3 weeks</b>	<b>5 - 6 weeks</b>	<b>3 - 4 weeks</b>	<b>5 - 6 weeks</b>	<b>3 - 4 weeks</b>	<b>4 - 5 weeks</b>	<b>3 - 4 weeks</b>	<b>2 - 3 weeks</b>	<b>1 - 2 weeks</b>
3.NR.1 3.PAR.2 3.MDR.5 3.MP.1-8	3.PAR.3 3.MDR.5 3.GSR.7 3.MP.1-8	3.PAR.3 3.MDR.5 3.MP.1-8	3.NR.1 3.PAR.2 3.MDR.5 3.MP.1-8	3.PAR.2 3.PAR.3 3.MDR.5 3.MP.1-8	3.NR.4 3.MP.1-8	3.GSR.7 3.GSR.8 3.PAR.3 3.MDR.5 3.MP.1-8	3.GSR.6  3.MP.1-8	ALL STANDARDS  3.MP.1-8

← Ongoing interdisciplinary learning to impact the community and to explain real-life phenomena →

The concepts in each unit are presented based on a logical, mathematical progression. Each unique unit in sequence builds upon the previous unit.

The [Framework for Statistical Reasoning](#), [Mathematical Modeling Framework](#), and the [K-12 Mathematical Practices](#) should be taught throughout the units.

**Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.**

**Key for Course Standards:** MP: Mathematical Practices, NR: Numerical Reasoning, PAR: Patterning & Algebraic Reasoning, GSR: Geometric & Spatial Reasoning, MDR: Measurement & Data Reasoning

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## Year-At-A-Glance

### Semester 1

Pacing Suggestion	Unit	Content Standards	Learning Objectives
2 - 3 Weeks	<b>Unit 1: Building a Strong Foundation</b> <i>The first weeks of school are focused on setting up the classroom culture for the year and developing routines that support the Mathematical Practices. This unit will allow teachers to build upon previous learning as they get to know their students, and students get to know themselves as math learners through statistical investigative activities. Students will strengthen their understanding of place value, addition, and subtraction up to 1,000 through meaningful tasks and number sense routines.</i>	3.NR.1 3.PAR.2 3.MDR.5 3.MP.1 - 8	3.NR.1.1 (up to 1,000) 3.NR.1.2 (up to 1,000) 3.PAR.2.1 3.MDR.5.1 3.MDR.5.4 3.MDR.5.5
5 - 6 weeks	<b>Unit 2: Exploring Multiplication</b> <i>In this unit, students will explore multiplication through hands-on investigations and authentic problems. Students will explore patterns and properties and discover relationships between multiplication facts. Students will also represent and solve multiplication problems through the context of picture and bar graphs. Students will create statistical investigative questions, collect, analyze, and interpret numerical and categorical data as an entry point for learning about equal-size groups and multiplication.</i>	3.PAR.3 3.MDR.5 3.GSR.7 3.MP.1 - 8	3.PAR.3.1    3.MDR.5.1 3.PAR.3.2    3.MDR.5.5 3.PAR.3.3    3.GSR.7.1 3.PAR.3.4    3.GSR.7.2 3.PAR.3.6
3 - 4 weeks	<b>Unit 3: Relating Multiplication to Division</b> <i>In this unit, students will learn that multiplication and division are inverse operations that can be used to solve problems involving equal groups, arrays, and area measurements. Students will discover that numbers of objects can be divided by partitioning them into equal shares (partitive) and by grouping them into groups of a known size (quotative).</i>	3.PAR.3 3.MDR.5 3.MP.1 - 8	3.PAR.3.2    3.PAR.3.5 3.PAR.3.3    3.PAR.3.6 3.PAR.3.4    3.PAR.3.7 3.MDR.5.1 3.MDR.5.5
5 - 6 weeks	<b>Unit 4: Place Value, Addition &amp; Subtraction up to 10,000</b> <i>In this unit, students will extend their understanding of the base-ten system to include numbers to 10,000. Students will use their understanding of place value to compare four-digit numbers, round whole numbers up to 1,000 to the nearest 10 or 100, fluently add and subtract within 1,000 while expanding the application of part-whole strategies, properties of operations and place value to add and subtract within 10,000. Students will represent problems using equations with unknowns in all positions and assess the reasonableness of their answers.</i>	3.NR.1 3.PAR.2 *Fluently adding and subtracting up to 1,000 by the end of Grade 3. 3.MDR.5 3.MP.1 - 8	3.NR.1.1 3.NR.1.2 3.NR.1.3 3.PAR.2.1 3.PAR.2.2 3.MDR.5.1 3.MDR.5.5

Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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## Year-At-A-Glance

### Semester 2

Pacing Suggestion	Unit Description	Content Standards	Learning Objectives
3 - 4 weeks	<b>Unit 5: Two-Step Problems and Time</b> <i>In this unit, students will solve and represent authentic problems using all four operations. Students recognize problem situations that indicate when to add, subtract, multiply, or divide and build appropriate equations to solve the problems.</i>	3.PAR.2 3.PAR.3 3.MDR.5 3.MP.1 - 8	3.PAR.2.1    3.PAR.3.7 3.PAR.2.2    3.MDR.5.1 3.PAR.3.4    3.MDR.5.2 3.PAR.3.6    3.MDR.5.3
4 - 5 weeks	<b>Unit 6: Fractions as Numbers</b> <i>In this unit, students will develop an understanding of fractions as numbers with an emphasis on unit fractions. Students understand that fractions are numbers that describe the division of a whole into equal parts. Students represent fractions with models, diagrams, and number lines and use these models to compare, find, and generate equivalent fractions.</i>	3.NR.4 3.MP.1 - 8	3.NR.4.1 3.NR.4.2 3.NR.4.3 3.NR.4.4
3 - 4 weeks	<b>Unit 7: Connecting Length, Perimeter, and Area</b> <i>In this unit, students will use a ruler to measure length to the nearest half or quarter of an inch. Students also measure side lengths of polygons to determine the perimeter and extend their understanding of area measurement by explaining that the area of a rectangle can be determined by multiplying the side lengths.</i>	3.GSR.7 3.GSR.8 3.PAR.3 3.MDR.5 3.MP.1 - 8	3.GSR.7.1    3.PAR.3.6 3.GSR.7.2    3.PAR.3.7 3.GSR.7.3    3.MDR.5.1 3.GSR.8.1    3.MDR.5.4 3.GSR.8.2    3.MDR.5.5 3.PAR.3.3
2 - 3 weeks	<b>Unit 8: Two-Dimensional Shapes</b> <i>In this unit, students will reason about attributes (features) of shapes including parallel segments, perpendicular segments, right angles, and symmetry.</i>	3.GSR.6 3.MP.1 - 8	3.GSR.6.1 3.GSR.6.2 3.GSR.6.3
1 - 2 weeks	<b>Unit 9: Culminating Capstone Unit</b> <b>(applying concepts in real-life contexts in a culminating interdisciplinary unit)</b> <i>The capstone unit applies content that has already been learned in previous interdisciplinary PBLs and units throughout the school year. The capstone unit is an interdisciplinary unit that allows students to create a presentation, report, or demonstration that could include their models used to answer an overarching driving question. (e.g., Students can present their solution(s), findings, project, or answer to the driving question to a larger audience during the culminating capstone unit.)</i>	ALL STANDARDS  3.MP.1 - 8	ALL ASSOCIATED LEARNING OBJECTIVES

Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

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## Semester 1

### Unit 1: Building a Strong Foundation (2 - 3 weeks)

**Big Ideas: Numerical Reasoning, Patterning & Algebraic Reasoning, and Measurement & Data Reasoning**

#### ***Standards Addressed in this Unit:***

***3.NR.1: Use place value understanding to represent, read, write, and compare numerical values up to 10,000 and round whole numbers up to 1,000.***

***3.PAR.2: Use part-whole strategies, represent and solve real-life problems involving addition and subtraction with whole numbers up to 10,000. \*\*While the focus of this standard includes whole numbers to 10,000, Unit 1 focuses on whole numbers up to 1,000 as a foundation of the work in future units in third grade.***

***3.MDR.5: Solve real-life, mathematical problems involving length, liquid volume, mass, and time.***

#### ***Suggested Clusters of Concepts (Learning Objectives)***

3.NR.1.1 - Read and write multi-digit whole numbers up to 10,000 to the thousands using base-ten numerals and expanded form.  
\*\*Up to 1,000 until Unit 5.

3.NR.1.2 - Use place value reasoning to compare multi-digit numbers up to 10,000, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons. \*\*Up to 1,000 in Unit 1.

3.PAR.2.1 - Fluently add and subtract within 1,000 to solve problems.

3.MDR.5.1- Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.

3.MDR.5.4 - Use rulers to measure lengths in halves and fourths (quarters) of an inch and whole inch. \*\*Unit 1 only focuses on length to the whole inch.

3.MDR.5.5 - Estimate and measure liquid volumes, lengths and masses of objects using customary units. Solve problems involving mass, length, and volume given in the same unit, and reason about the relative sizes of measurement units within the customary system.

**Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.**

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## Unit 2: Exploring Multiplication (5 - 6 weeks)

**Big Ideas: Patterning & Algebraic Reasoning, Geometric & Spatial Reasoning, and Measurement & Data Reasoning**

### ***Standards Addressed in this Unit:***

***3.PAR.3: Use part-whole strategies to solve real-life, mathematical problems involving multiplication and division with whole numbers within 100. \*\*Only multiplication in Unit 2.***

***3.GSR.7: Identify area as a measurable attribute of rectangles and determine the area of a rectangle presented in real-life, mathematical problems.***

***3.MDR.5: Solve real-life, mathematical problems involving length, liquid volume, mass, and time.***

### ***Suggested Clusters of Concepts (Learning Objectives)***

3.PAR.3.1 - Describe, extend, and create numeric patterns related to multiplication. Make predictions related to the patterns.

3.PAR.3.2 - Represent single digit multiplication and division facts using a variety of strategies. Explain the relationship between multiplication and division.

3.PAR.3.3 - Apply properties of operations (i.e., commutative property, associative property, distributive property) to multiply and divide within 100.

3.PAR.3.4 - Use the meaning of the equal sign to determine whether expressions involving addition, subtraction, and multiplication are equivalent.

3.PAR.3.6 - Solve practical, relevant problems involving multiplication and division within 100 using part-whole strategies, visual representations, and/or concrete models.

3.GSR.7.1 - Investigate area by covering the space of rectangles presented in realistic situations using multiple copies of the same unit, with no gaps or overlaps, and determine the total area (total number of units that covered the space).

3.GSR.7.2 - Determine the area of rectangles (or shapes composed of rectangles) presented in relevant problems by tiling and counting.

3.MDR.5.1- Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.

3.MDR.5.5 - Estimate and measure liquid volumes, lengths and masses of objects using customary units. Solve problems involving mass, length, and volume given in the same unit, and reason about the relative sizes of measurement units within the customary system.

**Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.**

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## Unit 3: Relating Multiplication to Division (3 - 4 weeks)

### Big Ideas: Patterning & Algebraic Reasoning and Measurement & Data Reasoning

#### ***Standards Addressed in this Unit:***

***3.PAR.3: Use part-whole strategies to solve real-life, mathematical problems involving multiplication and division with whole numbers within 100.***

***3.MDR.5: Solve real-life, mathematical problems involving length, liquid volume, mass, and time.***

#### ***Suggested Clusters of Concepts (Learning Objectives)***

3.PAR.3.2 - Represent single digit multiplication and division facts using a variety of strategies. Explain the relationship between multiplication and division.

3.PAR.3.3 - Apply properties of operations (i.e., commutative property, associative property, distributive property) to multiply and divide within 100.

3.PAR.3.4 - Use the meaning of the equal sign to determine whether expressions involving addition, subtraction, and multiplication are equivalent.

3.PAR.3.5 - Use place value reasoning and properties of operations to multiply one-digit whole numbers by multiples of 10, in the range 10-90.

3.PAR.3.6 - Solve practical, relevant problems involving multiplication and division within 100 using part-whole strategies, visual representations, and/or concrete models.

3.PAR.3.7 - Use multiplication and division to solve problems involving whole numbers to 100. Represent these problems using equations with a letter standing for the unknown quantity. Justify solutions.

3.MDR.5.1- Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.

3.MDR.5.5 - Estimate and measure liquid volumes, lengths and masses of objects using customary units. Solve problems involving mass, length, and volume given in the same unit, and reason about the relative sizes of measurement units within the customary system.

**Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that note that MPs 1, 3 and 6 should support the learning in every lesson.**

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## Unit 4: Place Value, Addition & Subtraction up to 10,000 (5 - 6 weeks)

### Big Ideas: Numerical Reasoning, Patterning & Algebraic Reasoning, and Measurement & Data Reasoning

#### ***Standards Addressed in this Unit:***

***3.NR.1: Use place value understanding to represent, read, write, and compare numerical values up to 10,000 and round whole numbers up to 1,000.***

***3.PAR.2: Use part-whole strategies, represent and solve real-life problems involving addition and subtraction with whole numbers within 10,000.***

***3.MDR.5: Solve real-life, mathematical problems involving length, liquid volume, mass, and time.***

***\*\* Only mass in Unit 4.***

#### ***Suggested Clusters of Concepts (Learning Objectives)***

3.NR.1.1 - Read and write multi-digit whole numbers up to 10,000 to the thousands using base-ten numerals and expanded form.

3.NR.1.2 - Use place value reasoning to compare multi-digit numbers up to 10,000, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.

3.NR.1.3 - Use place value understanding to round whole numbers up to 1000 to the nearest 10 or 100.

3.PAR.2.1 - Fluently add and subtract within 1,000 to solve problems.

3.PAR.2.2 - Apply part-whole strategies, properties of operations and place value understanding, to solve problems involving addition and subtraction within 10,000.

3.MDR.5.1- Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.

3.MDR.5.5 - Estimate and measure liquid volumes, lengths and masses of objects using customary units. Solve problems involving mass, length, and volume given in the same unit, and reason about the relative sizes of measurement units within the customary system.

**Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.**



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## Semester 2

### Unit 5: Two-Step Problems and Time (3 - 4 weeks)

#### Big Ideas: Patterning & Algebraic Reasoning and Measurement & Data Reasoning

#### ***Standards Addressed in this Unit:***

***3.PAR.2: Use part-whole strategies, represent and solve real-life problems involving addition and subtraction with whole numbers within 10,000.***

***3.PAR.3: Use part-whole strategies to solve real-life, mathematical problems involving multiplication and division with whole numbers within 100.***

***3.MDR.5: Solve real-life, mathematical problems involving length, liquid volume, mass, and time.***

#### ***Suggested Clusters of Concepts (Learning Objectives)***

3.PAR.2.1 - Fluently add and subtract within 1,000 to solve problems.

3.PAR.2.2 - Apply part-whole strategies, properties of operations and place value understanding, to solve problems involving addition and subtraction within 10,000.

3.PAR.3.4 - Use the meaning of the equal sign to determine whether expressions involving addition, subtraction, and multiplication are equivalent.

3.PAR.3.6 - Solve practical, relevant problems involving multiplication and division within 100 using part-whole strategies, visual representations, and/or concrete models.

3.PAR.3.7 - Use multiplication and division to solve problems involving whole numbers to 100. Represent these problems using equations with a letter standing for the unknown quantity. Justify solutions.

3.MDR.5.1 - Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.

3.MDR.5.2 - Tell and write time to the nearest minute and estimate time to the nearest fifteen minutes (quarter hour) from the analysis of an analog clock.

3.MDR.5.3 - Solve meaningful problems involving elapsed time, including intervals of time to the hour, half hour, and quarter hour where the times presented are only on the hour, half hour, or quarter hour within a.m. or p.m. only.

**Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.**



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## Unit 6: Fractions as Numbers (4 - 5 weeks)

### Big Idea: Numerical Reasoning

#### ***Standard Addressed in this Unit:***

***3.NR.4: Represent fractions with denominators of 2, 3, 4, 6 and 8 in multiple ways within a context using visual models.***

#### ***Suggested Clusters of Concepts (Learning Objectives)***

3.NR.4.1 - Describe a unit fraction and explain how multiple copies of a unit fraction form a non-unit fraction. Use parts of a whole, parts of a set, points on a number line, distances on a number line and area models.

3.NR.4.2 - Compare two-unit fractions by flexibly using a variety of tools and strategies.

3.NR.4.3 - Represent fractions, including fractions greater than one, in multiple ways.

3.NR.4.4 - Recognize and generate simple equivalent fractions.

**Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.**

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## Unit 7: Connecting Length, Perimeter and Area (3 - 4 weeks)

**Big Ideas: Patterning & Algebraic Reasoning, Geometric & Spatial Reasoning, and Measurement & Data Reasoning**

### ***Standards Addressed in this Unit:***

- 3.MDR.5: Solve real-life, mathematical problems involving length, liquid volume, mass, and time. \*\*Only length in this unit.***
- 3.GSR.7: Identify area as a measurable attribute of rectangles and determine the area of a rectangle presented in real-life, mathematical problems.***
- 3.GSR.8: Determine the perimeter of a polygon presented in real-life, mathematical problems.***
- 3.PAR.3: Use part-whole strategies to solve real-life, mathematical problems involving multiplication and division with whole numbers within 100.***

### ***Suggested Clusters of Concepts (Learning Objectives)***

- 3.MDR.5.4 - Use rulers to measure lengths in halves and fourths (quarters) of an inch and a whole inch.
- 3.MDR.5.1 - Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.
- 3.MDR.5.5 - Estimate and measure liquid volumes, lengths and masses of objects using customary units. Solve problems involving mass, length, and volume given in the same unit, and reason about the relative sizes of measurement units within the customary system.
- 3.GSR.7.1 - Investigate area by covering the space of rectangles presented in realistic situations using multiple copies of the same unit, with no gaps or overlaps, and determine the total area (total number of units that covered the space).
- 3.GSR.7.2 - Determine the area of rectangles (or shapes composed of rectangles) presented in relevant problems by tiling and counting.
- 3.GSR.7.3 - Discover and explain how area can be found by multiplying the dimensions of a rectangle.
- 3.PAR.3.3 - Apply properties of operations (i.e., commutative property, associative property, distributive property) to multiply and divide within 100.
- 3.PAR.3.6 - Solve practical, relevant problems involving multiplication and division within 100 using part-whole strategies, visual representations, and/or concrete models.
- 3.PAR.3.7 - Use multiplication and division to solve problems involving whole numbers to 100. Represent these problems using equations with a letter standing for the unknown quantity. Justify solutions.
- 3.GSR.8.1 - Determine the perimeter of a polygon and explain that the perimeter represents the distance around a polygon. Solve problems involving perimeters of polygons.
- 3.GSR.8.2 - Investigate and describe how rectangles with the same perimeter can have different areas or how rectangles with the same area can have different perimeters.

**Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.**

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## Unit 8: Two-Dimensional Shapes (2 - 3 weeks)

### Big Idea: Geometric & Spatial Reasoning

#### ***Standard Addressed in this Unit:***

***3.GSR.6: Identify the attributes of polygons, including parallel segments, perpendicular segments, right angles, and symmetry.***

#### ***Suggested Clusters of Concepts (Learning Objectives)***

3.GSR.6.1 - Identify perpendicular line segments, parallel line segments, and right angles, identify these in polygons, and solve problems involving parallel line segments, perpendicular line segments, and right angles.

3.GSR.6.2 - Classify, compare, and contrast polygons, with a focus on quadrilaterals, based on properties. Analyze specific 3-dimensional figures to identify and describe quadrilaterals as faces of these figures.

3.GSR.6.3 - Identify lines of symmetry in polygons.

Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.

## Unit 9: Culminating Capstone Unit (1 - 2 weeks)

***(applying concepts in real-life contexts in a culminating interdisciplinary unit)***

#### ***ALL Standards Addressed in this Unit***

***The capstone unit applies content that has already been learned in previous interdisciplinary PBLs and units throughout the school year. The capstone unit is an interdisciplinary unit that allows students to create a presentation, report, or demonstration that could include their models used to answer an overarching driving question. (e.g., Students can present their solution(s), findings, project, or answer to the driving question to a larger audience during the culminating capstone unit.)***

Mathematical Practices (3.MP.1- 8) should be evidenced at some point throughout each unit depending on the tasks that are explored. It is important to note that MPs 1, 3 and 6 should support the learning in every lesson.