Seventh Grade Math
Example SLO

A Student Learning Objective (SLO) is a detailed process used to organize evidence of student growth over a specified period of time. The SLO process is appropriate for use in all grade levels and content areas and establishes meaningful goals aligning curriculum, instruction, and assessment. This template guides teachers and evaluators through a collaborative SLO process. Portions of this template were adapted from the Center for Assessment *SLO Toolkit*. In addition, domains and components that may align with each element of the template are included from the Danielson Group *Framework for Effective Teaching* to support discussion between teachers and evaluators.

Check boxes are included throughout the template to document the initial discussion and approval of each element. Evaluators may include written feedback concerning each element directly into the template using a different font color.

Educator Information

Academic Year	2014 - 2015
Educator Name	Example Teacher
School Name	Example School
District Name	Example District

Planning Information

Course/Subject Name	Math
Brief Course Description	The focus areas for Grade 7 math include ratios and proportionality, rational numbers, expressions, equations and inequalities.
Grade Level(s)	Grade 7
Interval of Instruction	9/15/14 – 1/31/15

Timeline and Sign-Off

Evaluator Name and Title	Example Evaluator
Initial SLO Evaluator Sign-Off	9/1/14
Midcourse Check-In Sign-Off	11/17/14
Description of changes made during the Midcourse Check-In: Susan and Robert were removed from the SLO population due to absences exceeding 50% of the first half of the SLO cycle.	
Due Date of Final SLO	1/31/15

Element #1: Learning Goal

A learning goal is a description of what students will be able to do at the end of a specified period of time aligned to appropriate learning standards. The development of a learning goal provides a solid foundation for meaningful, goal directed instruction and assessment. The learning goal encompasses a big idea that integrates multiple content standards.

Domain 1: Planning and Preparation
1a Demonstrating Knowledge of Content and Pedagogy
1c Setting Instructional Outcomes
1e Designing Coherent Instruction

Domain 3: Instruction
3c Engaging Students in Learning

☒	Describe the learning goal.	Students will solve multi-step real-world problems involving ratios, rates, and proportional relationships, including percent and scale drawing.
☒	What big idea is supported by the learning goal?	Students will understand that rates, ratios, and proportional relationships: • Express how quantities change in relationship to each other. • Can be represented in multiple ways. • Can be applied to problem solving situations such as interest, tax, discount, etc. • Can be applied to solve multi-step ratio and percent problems. • Can be applied in solving problems involving scale drawings of geometric figures.
☒	Which content standards are associated with this big idea? *List all standards that apply, including the text of the standards (not just the code).*	**New Illinois Learning Standards** **7.RP.1** Compute unit rates associates with rations of fractions, including ratios of lengths, areas, and other quantities measured in like or different units. *For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction 1/2/1/4miles per hour, equivalently 2 miles per hour.* **7.RP.2** Recognize and represent proportional relationships between quantities. a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.

		b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. c. Represent proportional relationships by equations. *For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.* d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate. **7.RP.3** Use proportional relationships to solve multi-step ratio and percent problems. *Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.* **7.G.1** Solve problems involving scale drawing of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing in a different scale.
☒	Describe the student population.	The student population includes 20 seventh grade students. Jean and Allen have IEPs for specific learning disabilities in reading. In addition, Carl, Max, and Sofia are categorized as English Learners.
☒	Describe the instruction and strategies you will use to teach this learning goal. *Be specific to the different aspects of the learning goal.*	**Standards for Mathematical Practice** **MP1 Make sense of problems and persevere in solving them.** Students exhibit this standard when they represent and interpret proportional relationships to solve ratio and percent problems using visual models, proportions and other equations. They also make sense of proportional situations that involve scale drawings using diagrams and equations. They persevere by selecting and using appropriate representations for the given contexts. **MP2 Reason abstractly and quantitatively.** Students will reason about the value of the rational number in relation the models that are created to represent them. They will apply proportional reasoning to scale drawings and determine if calculations are appropriate to the contexts. **MP4 Model with mathematics.** Students create models using tape diagrams, double number lines, manipulatives, tables and graphs to represent real-world and

		mathematical situations involving ratios and proportions. For example, students will examine the relationships between slopes of lines and ratio tables in the context of given situations.

MP6 Attend to precision. Students attend to the ratio and rate language studied in grade 6 to represent and solve problems involving rates and ratios. |
| ☒ | Identify the time span for teaching the learning goal (e.g., daily class-45 minutes for the entire school year). | Students will engage in mathematics instruction for one hour each day. |
| ☒ | Explain how this time span is appropriate and sufficient for teaching the learning goal. | The ratios and proportionality units address one of the key areas of focus identified in the standards. They also are coded as major standards in the PARCC Model Content Framework. The geometry standard is an application of the ratio and proportionality expectations. |

Questions to Guide Discussion
- Why is this learning goal important and meaningful for students to learn?
- In what ways does the learning goal require students to demonstrate deep understanding of the knowledge and skills of the standards or big idea being measured (e.g., cognitive complexity)?

Element #2: Assessments and Scoring

Assessments and evaluation procedures should be used to support and measure the learning goal. Consider how the assessment and evaluation procedures will be used to monitor student growth over multiple points in time in order to inform and differentiate instruction for all students.

Domain 1: Planning and Preparation   **Domain 3: Instruction**
1d Demonstrating Knowledge of Resources   3d Using Assessment in Instruction
1f Designing Student Assessments

☒	Describe the assessments and evaluation procedures (e.g., performance tasks, rubrics, teacher-created tests, portfolios, etc.) that measure students' understanding of the learning goal.	The following formative, interim, and summative assessments will be used to measure student growth in learning related to this learning goal. These assessments will be collected in student portfolios.

		• Ratios and Proportions Pretest/Self-Assessment • Fraction Scavenger Hunt • 7.RP.1 Formative Assessment and Self-Assessment • Is it Proportional • Domino Proportions • Pumpkin Patch • Equivalent Representations • 7.RP.2 Formative Assessment • Better Buy • Point, Set, Match • Unit 1 Summative and Self-Assessment • Visual Models • It's a Sale! • Percent Tape Diagrams • Sales Tax and Tip • Commissions and Fees • Simple Interest • Percent Scavenger Hunt • Percent Up and Down • Percent Error Stations • Critique of Percent Problems • Solving Multi-Step Problems • Scale Drawing Pre-Assessment • New Flooring for the House • Scale Drawing Project • Unit 2 Summative Assessment
☒	Describe how the assessments and evaluation procedures may be differentiated to meet the needs of all students described in the student population.	Assessments include self-assessment, rubrics, observation checklists, and answer keys. Since most assessments are formative, students may have opportunities to show growth from one task to another by articulating their thinking. Observation checklists can be used multiple times to capture evidence of student growth. Rubrics can also be used for students to self-monitor progress. Because the evidence will be collected using so many formative tools, students have ample opportunities to demonstrate understanding in a variety of ways. In addition, assessments will be differentiated for Jean and Allen according to the accommodations included in student's individual IEPs. Carl, Max, and Sofia will be

		provided with extended time and all directions and prompts will be read aloud.
☒	Explain how student performance is defined and evaluated using the assessments. Include the specific rubric and/or scoring criteria to be used.	Each assessment has an accompanying rubric, observation checklist, self-assessment analysis tool, or answer key. These align to the standards for the unit and data will be collected regarding each expectation that align with identified district performance levels.

Questions to Guide Discussion
- How often will you collect data to monitor student progress toward this learning goal?
- How will you use this information to monitor student progress and to differentiate instruction for all students toward this learning goal?

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Element #3: Expected Growth Targets

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In order to identify expected growth targets, educators must first identify students' actual performance through a review of available data reflecting students' starting points (i.e., baseline) concerning the learning goal. After the expected growth targets are identified, both the teacher and evaluator should reflect on whether the growth targets are ambitious, yet realistic for students to achieve in the specified period of time.

Domain 1: Planning and Preparation
1b Demonstrating Knowledge of Students
1c Setting Instructional Outcomes

☒	Identify the actual performance (e.g., test scores, performance tasks, etc.) to establish starting points (i.e., baseline) for students.	Starting points were determined based upon data collected from pre-assessment tools and self-assessment tools:

Starting points were determined based upon data collected from pre-assessment tools and self-assessment tools:

	EL	LD	Novice	Partial Mastery	Mastery	Above Mastery	Distinguished
Allen		R		X			
Carl	3.0		X				
Carol			X				
Deanna			X				
Ethan			X				
Fiona				X			
Heather				X			
Jean		R	X				
Jeanie			X				

	EL	LD	Novice	Partial Mastery	Mastery	Above Mastery	Distinguished
Julie				X			
Mary			X				
Mitchell			X				
Max	2.0		X				
Nathan				X			
Pat					X		
Robert			X				
Sofia	2.0		X				
Susan				X			
Tim					X		
Zach			X				

☒ Using students' starting points (i.e., baseline) identify the number or percentage of students expected at each growth target based on their assessment performance(s) (i.e., expected growth). Be sure to include any appropriate subgroups.

	EL	LD	Novice	Partial Mastery	Mastery	Above Mastery	Distinguished
Allen		R			X		
Carl	3.0			X			
Carol					X		
Deanna					X		
Ethan					X		
Fiona					X		
Heather					X		
Jean		R			X		
Jeanie				X			
Julie					X		
Mary				X			
Mitchell					X		
Max	2.0			X			
Nathan					X		
Pat						X	
Robert				X			
Sofia	2.0			X			
Susan					X		
Tim						X	
Zach					X		

Questions to Guide Discussion
- Describe the courses, assessments, and/or experiences used to establish starting points and expected outcomes for students' understanding of the learning goal (i.e., baseline data).
- Explain how these expected growth targets demonstrate ambitious, yet realistic goals, for measuring students' understanding of the learning goal.

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Element #4: Actual Outcomes

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Domain 3: Instruction
3e Demonstrating Flexibility and Responsiveness

Domain 4: Professional Responsibilities
4a Reflecting on Teaching
4b Maintaining Accurate Records

☒ Record the actual number or percentage of students who achieved the student growth targets. Be sure to include any appropriate subgroups.

	EL	LD	Novice	Partial Mastery	Mastery	Above Mastery	Distinguished
Allen		R			X		
Carl	3.0				X		
Carol					X		
Deanna					X		
Ethan					X		
Fiona					X		
Heather					X		
Jean		R			X		
Jeanie				X			
Julie					X		
Mary				X			
Mitchell					X		
Max	2.0			X			
Nathan					X		
Pat						X	
Sofia	2.0			X			
Tim						X	
Zach					X		

Please provide any comments you wish to include about the actual outcomes:

All students met their growth targets with the exception of Carl exceeded his growth target moving from Novice to Mastery.

Required for Evaluator

☒	Explain how the actual number or percentage of students who achieved student growth targets translates into an appropriate teacher rating.	All students met their identified growth targets.

Element #5: Teacher Rating

Unsatisfactory	Needs Improvement	Proficient	Excellent
Less than 25% of Students Met the Indicated Growth Target(s).	25% - 50% of Students Met the Indicated Growth Target(s).	51% - 75% of Students Met the Indicated Growth Target(s).	76% - 100% of Students Met the Indicated Growth Target(s).
☐	☐	☐	☒
Date: 1/31/15	Evaluator Signature: *Evaluator*		
Date: 1/31/15	Teacher Signature: *Teacher*		