# **Elementary Student Learning Objective:**

# **Third Grade Mathematics**

Improving the Quality of SAOs, 2019-20

# **Third Grade Mathematics Example**

# LEARNING GOAL

**Directions for Establishing a Learning Goal:** Use the planning information to refine and contextualize the description of the learning goal.

**Learning Goal:** a description of the specific knowledge and skills that support the enduring understandings or big ideas that students will possess at the end of the course or grade based on course-or grade-level content standards and curriculum.

# Learning Goal for this SAO

<u>Good</u>

Third grade students will use mathematical models (drawings, number lines, diagrams and equations) and/or strategies (patterns, inverse operations, equal groups, arrays, properties of operations) to solve multi-step problems involving addition, subtraction, multiplication or division. Students should also be able to explain or justify their decisions.

# **Explanation**

The Learning Goal includes <u>specific</u> knowledge and skills that students will learn (mathematical models and strategies) and <u>how</u> they will demonstrate their knowledge (solving multi-step problems with justification). However, it is unclear what students are expected to explain or justify and how they will do this-orally or in writing. Identifying whether students are explaining their procedure for solving the problem or explaining their use of models and/or strategies would strengthen this Learning Goal.

Students are expected to move beyond knowing math facts (DOK1) to using strategies to solve problems and explaining and/or justifying their response (DOK2). This Learning Goal would be strengthened with the identification of what type of multi-step problems students will solve. It is unclear if these are multi-step algorithms, word problems, or problem-solving situations. An additional way to increase the rigor of this Learning Goal would be to have students explain and/or justify their use of the models and/or strategies employed (DOK 3).

This Learning Goal is a "slice" of the curriculum that will extend beyond a unit as students will be engaged in learning and demonstrating the mathematical practices including making sense of problems, model with mathematics, and reason abstractly and quantitatively.

# <u>Better</u>

Third grade students will use mathematical models (drawings, number lines, diagrams and equations) and/or strategies (patterns, inverse operations, equal groups, arrays, properties of operations) to solve multi-step word problems involving addition, subtraction, multiplication or division. Students will also be able to explain in writing the reasonableness of their answer and their decision to use the model/strategy they selected.

# LEARNING GOAL PLANNING QUESTIONS

**Directions for Establishing a Learning Goal:** After completing the entire table, use the planning information to write the description of the learning goal.

**Learning Goal:** a description of the specific knowledge and skills that support the enduring understandings or big ideas that students will possess at the end of the course or grade based on course-or grade-level content standards and curriculum.

#### Planning Information for Writing the Learning Goal Good

#### **Big Idea:**

Understanding mathematical relationships is an important concept.

Explanation					
Identifies that the content is important. The big idea should distinguish why it is central to the content.					
Better					
Understanding mathematical relationships allows for solving real-world problems.					

Good

#### **Content Standards:**

MAFS.3.OA.2.5: Apply properties of operations as strategies to multiply and divide. Examples: Identity property, Commutative property of multiplication, Associative property of multiplication, and Distributive property.

MAFS.3.OA.4.8: Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

MAFS.3.MD.1.1: Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

MAFS.3.MD.1.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units.

MAFS.3.MD.2.3: Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.

MAFS.3.MD.3.7: Relate area to the operations of multiplication and addition.

a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole number products as rectangular areas in mathematical reasoning.

c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and (b + c) is the sum of  $a \times b$  and  $a \times c$ . Use area models to represent the distributive property in mathematical reasoning.

d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into nonoverlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

MAFS.3.MD.4.8: Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

#### **Explanation**

Including the standard number and the wording allows for ensuring that the standard aligns to the expectations of the Learning Goal, including problem-solving. There are standards associated with different aspects of measurement as well as operations and algebraic which helps to ensure that the SAO is a year-long goal.

{Nothing else is required.}

#### Good

**Better** 

#### **Important and Meaningful:**

Students need to learn how to use mathematical models and strategies to give them a more concrete conceptual understanding of mathematics; only then can they apply this knowledge to solve real-world problems.

#### **Explanation**

This statement is true for all students and supports the big idea. What is required here is for an explanation as to why this Learning Goal was selected for the teacher's students. Referencing a need based on school, district, or even past history of the teacher would strengthen the explanation as to why the Learning Goal is important and meaningful.

#### Better

Students in grade 3 at my school typically struggle with solving word problems, as noted on the state test as well as on classroom assignments and tests. In fact, after analyzing testing data, we noted that this is a struggle for students in grades 4 and 5 as well. This learning goal is important and meaningful to ensure that students have a solid foundation and deep conceptual knowledge of mathematics, including modeling and use of strategies in order to solve real-world problems.

#### Good

# **Deep Understanding:**

The learning goal being measured requires students to decide which way to solve a real-world problem and justify why they chose to solve a problem a certain way. *DOK 2* 

#### **Explanation**

This statement is accurate based on the original Learning Goal. As noted in the explanation above, the rigor of the Learning Goal could be increased to a DOK Level 3.

#### Better

6

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Students are expected to move beyond knowing math facts (DOK1) and using strategies to solve problems to explaining and/or justifying their response (DOK2). In this Learning Goal students will be expected to explain and/or justify their use of the models and/or strategies employed in order to explain their response (DOK 3).

#### Instruction:

# Good

- 1. Direct instruction on different types of math models.
- 2. Direct instruction on different math strategies.
- 3. Model how to use the models and strategies to solve math problems.
- 4. Discussions with teacher and peers about how to explain why they solved a problem a certain way.

#### **Explanation**

A broad description of the strategies the teacher will use is included. It appears that whole group instruction is the basis for teaching about math models and strategies. It is unclear how the teacher will differentiate instruction for students to include remediation and extension of concepts. Additionally, the fourth instructional strategy identifies what the students will do rather than what the teacher will do. This section is intended to provide a description of the strategies that the teacher will employ to instruct students, not a description of what students are expected to do.

#### Better

- 1. Direct instruction and modeling the different types of math models and strategies for solving math problems. This instruction and modeling will begin with simple real-world problems leading to more complex multi-step problems.
- 2. Throughout the year, the direct instruction and modeling will be followed by small group instruction for struggling students. Students will engage in learning center pathways that focus on different aspects of problem solving allowing students to work together to solve real-world problems using the conceptual learning from the direct instruction.
- 3. As students engage in the learning center pathways, I will meet with students individually in a thinkaloud conversation on why they selected a specific strategy or model, how they knew which operation was expected in the problem, and how they know their answer is reasonable, to ensure deep conceptual understanding of the mathematics.

Good

#### Time Span:

This learning goal has a year-long focus, taught daily for 45-60 minutes per day.

# **Explanation**

The Learning Goal is complex and will require significant amounts of time as noted in the response. However, it is unlikely that the entire mathematics time block each day is dedicated to problem-solving, modeling, and strategy use. There are other standards/curriculum that will need to be taught (e.g., fractions, geometry) and students will require practice time for learning concepts and to solve algorithms.

Better

The Learning Goal has a year-long focus and will be embedded into each unit. Students will need time to learn the mathematical concepts and to practice solving algorithms in addition to solving multi-step problems using modeling. Therefore, aspects of this Learning Goal will be taught daily but will range from 10 minutes to 45 minutes per day.

#### Good

#### **Appropriate and Sufficient:**

Problem solving is a critical cornerstone of understanding math in third grade and beyond. It is very important that students understand the "how's and why's" of problem solving, as well as being able to justify their answers. This will require the full amount of time identified for instruction.

#### **Explanation**

The statement provided reiterates why this Learning Goal is important for students to learn and that a significant amount of time is necessary to teach these concepts. However, what is expected here is an explanation of how the learning goal is attainable within this period of time. In other words, why is the amount of time appropriate for this "slice" of the curriculum given other expectations in the teaching of mathematics?

#### Better

This allotted time is necessary for students to learn the content along with different ways to solve problems. Each unit is purposefully designed to lead students through an understanding of the math concepts, learning the vocabulary associated with solving word problems, and then applying problem-solving strategies when solving problems. This multi-stepped process and learning requires daily engagement for students in order for them to attain the knowledge and skills associated with problem-solving.

# ASSESSMENTS AND SCORING

**Directions for Documenting Assessments and Scoring:** Use the planning information to refine and tailor the description and use of assessments you described.

**Assessments and Scoring:** Assessments should be of high quality and designed to best measure the knowledge and skills found in the learning goal of this SAO. The assessment should be accompanied by clear criteria or rubrics to describe what students have learned.

#### Assessments for this SAO

#### Good

#### Summative and Formative Assessments:

<u>Summative assessment</u>: Students will solve real-world problems that include the expectation that they will choose the appropriate model and/or strategy needed to solve the problem. Students are expected to use correct units of measure and be able to justify their answers.

Example prompt: *Emily drinks 235 millimeters of orange juice each day. She started with 1000 mL. How much orange juice will be left after three days?* 

Formative assessments: Exit tickets and journaling.

#### **Explanation**

The summative assessment aligns to the expectations of the Learning Goal in which students are expected to make meaning of and solve a multi-step word problem. The explanation of the summative assessment includes that students will choose a model or strategy to solve the problem and justify their responses. A sample prompt is provided to demonstrate this expectation. However, the example provided does not include the expectation of using a model or strategy to solve the problem or to explain/justify its use or the answer.

The formative assessments identified are appropriate examples of formative assessments. Given that this is for a math Learning Goal it is unclear how these formative assessments would be used for making instructional decisions about students' ability to demonstrate the different components of solving problems.

#### <u>Better</u>

<u>Summative assessments</u>: Students will solve real world problems that include the expectation that they will choose the appropriate model and/or strategy needed to solve the problem. Students are expected to use correct units of measure and be able to justify their answers.

Example prompt: *Emily drinks 235 millimeters of orange juice each day. She started with 1000 mL. How much orange juice will be left after three days?* 

In order to solve this problem, you will need to:

- Underline important parts of the problem;
- Circle the key words that tell you which math operation to use;
- Choose an appropriate model or strategy to solve the problem;
- Uses mathematical language to explain or justify your choice of the model/strategy and how you solved the problem;

- Label your answer with the correct unit of measure;
- Check your work to be sure it is clear and easy to follow.

<u>Formative assessments</u>: Exit tickets, journaling, oral explanations to a partner or teacher will be used to determine students' ability to explain their knowledge of the vocabulary to indicate a mathematical operation, to explain the reasonableness of the response and/or the use of the model/strategy selected.

# Good

#### **Defining and Scoring Performance:**

Student responses for each summative will be scored using a 1-3 point analytic math problem-solving rubric created by the third grade team. The criteria to be analyzed include mathematic thinking and strategy use, justification of strategy and answer, and computation. The three levels include 3 - meets or exceeds expectations, 2 - partially meets the expectation, and 1 - expectation needs improvement. The full rubric will be provided during the beginning of the year SAO conference for review.

#### **Explanation**

The explanation illustrates that the scoring tool is a rubric with three levels and criteria that align to solving problems and the expectations of the Learning Goal. What is unclear; however, is whether the descriptors define the quality of student work rather than the quantity and are not subjective statements, the levels are distinct and focus on the essential learning rather than work habits, and that they are progressive from one level to the next. Additionally, providing some examples of the descriptors would allow for ensuring that the prompt and rubric are fully aligned.

#### <u>Better</u>

Student responses for each summative will be scored using a 1-3 point analytic math problem-solving rubric created by the third grade team. The criteria to be analyzed include mathematic thinking and strategy use, justification of strategy and answer, and computation. The three levels include 3 - meets or exceeds expectations, 2 - partially meets the expectation, and 1 - expectation needs improvement. The full rubric will be provided during the beginning of the year SAO conference for review.

An example of the descriptors for *Mathematical Thinking and Strategy Use* includes the following: <u>Meets or Exceeds Expectations:</u>

- Clear understanding of the problem based on important and appropriate words circled and underlined.
- Appropriately solves the problem using the operations aligned to the problem.
- Chooses an efficient strategy to solve the problem.

#### Partially Meets Expectations:

- Generally understands the problem based on words circled and underlined.
- Solves the problem using the operations aligned to the problem. Includes some additional or missed steps.
- Chooses a strategy that allows for appropriately solving the problem.

**Expectation Needs Improvement:** 

- Demonstrates confusion of the problem through the inability to determine appropriate words to circle and underline.
- Little engagement in solving the problem or selection of operations is not aligned to the problem.
- No strategy is chosen or a strategy is chosen that will not lead to a solution.

The full rubric will be provided during the beginning of the year SAO conference for review.

# ASSESSMENTS AND SCORING PLANNING QUESTIONS

**Directions for Documenting Assessments and Scoring:** After completing the entire table of planning questions, use the planning information to write the description and use of assessments and scoring criteria or rubrics.

**Assessments and Scoring:** Assessments should be of high quality and designed to best measure the knowledge and skills found in the learning goal of this SAO. The assessment should be accompanied by clear criteria or rubrics to describe what students have learned.

Planning Information for Explaining the Use of Assessments and Scoring

#### Good

Collecting summative and formative data:

Summative data will be collected every 4-6 weeks.

Formative data will be collected weekly.

# **Explanation**

The response identifies an appropriate period of time for the collection of summative assessments. The end of 4-6 weeks appears to indicate the end of a unit. The formative assessments are collected more often. Given the complex nature of this Learning Goal, the collection of formative data is too infrequent to determine students' misconceptions, misunderstandings, or ability to apply their learning, and to subsequently make immediate instructional adjustments. This is the purpose of formative assessments.

<u>Better</u>

Summative data will be collected every 4-6 weeks at the end of each unit, for a total of 6-8 summative assessments.

Formative data will be collected for various components of the learning goal on a daily basis throughout each week depending on the focus of the lesson.

# Good

# Use of Information:

The collected data will be used to reveal specific information about the students' ability to solve realworld story problems and to develop the use of a variety of models or strategies. Leveled student groups can be formed based on the data with an instructional focus on the skills that are needed.

#### **Explanation**

A description of the purpose and use of the data and information collected is provided. The description of the leveled student groups seems to focus on students in need of remediation. This description would be strengthened if information was provided on how the data will be used for both students in need of remediation and enrichment.

#### <u>Better</u>

The collected data will be used to reveal specific strengths and needs about the students' ability to demonstrate the different components of solving real-world word problems and to develop the use of a variety of models or strategies. Leveled student groups can be formed based on the data with an instructional focus on the skills that are needed. Learning center pathways can be created for providing enrichment for students and for students in need of additional practice.

#### **TARGETS**

**Directions for Establishing Targets:** Use the planning information to guide how you will use previous performance to set baseline data as well as to establish expected targets.

**Targets:** identify the expected outcomes by the end of the instructional period for the whole class as well as for different subgroups, as appropriate.

# Actual Performance from Baseline Data

Good

#### **Baseline Data Sources:**

STAR Math data – current third grade data based on the standards for the year.

<u>ISIP Math data</u> – current third grade data. This data identifies the skills that each student needs. It also supplies remediation lessons.

<u>Go Math End of Year Assessment</u> – how each student ended second grade. Should show us if there are any prerequisite skills that need to be remediated.

<u>MTSS data</u> – to determine which students are already in the IEP process and the reasons (ELA, Math, Behavior, etc.).

<u>Attendance data</u> – to determine which students missed a lot of school which explains gaps in their learning.

# **Explanation**

The summative data included for establishing baseline levels provides an overall understanding of students' knowledge of third grade math concepts as well as the prerequisite knowledge and skills. The MTSS and attendance data supplements the content knowledge by providing a possible explanation for the reasons students struggle. What is lacking is data that identifies whether students are able to make meaning of word problems, identify and demonstrate modeling and problem-solving strategies, and to communicate their understanding through writing. Additionally, the summative data focuses on many more standards than those included in this Learning Goal, requiring some discernment when using this data. It may not be necessary to use both STAR and ISIP math data. Replacing one of these sources with a classroom assessment or a problem to solve, may provide the additional information necessary.

#### <u>Better</u>

<u>STAR Math data</u> – current third grade data based on the standards for the year. The first STAR Math assessment is administered within the first six weeks of school.

<u>Teacher created math word problem</u> based on second grade math concepts in which students are expected to demonstrate the success criteria used for the summative assessments.

<u>Go Math End of Year Assessment</u> – how each student ended second grade. Should show us if there are any prerequisite skills that need to be remediated.

<u>MTSS data</u> – to determine which students are already in the IEP process and the reasons (ELA, Math, Behavior, etc.).

<u>Attendance data</u> – to determine which students missed a lot of school which may explain gaps in their learning.

#### Good

# Target Levels Established:

Four target levels have been established for this class with the following performance outcomes expected by the end of the year:

<u>Exceeds Expectations</u>: Students in this level consistently do well on solving word problems using modeling and strategies.

<u>Meets Expectations</u>: Students in this level require practice and/or small group instruction in order to solve word problems using modeling and strategies.

<u>Approaching Expectations</u>: Students in this level struggle to solve word problems using modeling and strategies.

<u>Below Expectations</u>: Students in this level often cannot solve word problems using modeling and strategies.

# **Explanation**

This explanation includes the performance levels and a broad explanation of what students in each group are able to do. A more comprehensive explanation would include an explanation of what students are specifically doing that demonstrates why they are placed in these levels.

# <u>Better</u>

Four target levels have been established for this class with the following performance outcomes expected by the end of the year:

<u>Exceeds Expectations</u>: Students in this level consistently demonstrate the ability to integrate the mathematical concepts, use of modeling, and strategies when solving word problems. Students in this group are in the extension learning center pathway.

<u>Meets Expectations</u>: Students in this level demonstrate the ability to integrate the mathematical concepts, use of modeling, and strategies when solving word problems when they are provided with opportunities to practice through the learning center pathway and/or engage in small group instruction. <u>Approaching Expectations</u>: Students in this level struggle to demonstrate the ability to ingrate the mathematical concepts, use of modeling, and strategies when solving word problems. Students in this group require small group instruction on a regular basis and often are able to solve algorithms but have difficulty with analyzing the expectations of the word problems.

<u>Below Expectations</u>: Students in this level struggle to demonstrate the various aspects of the Learning Goal. Students in this group require small group and one-on-one instruction on a daily basis. These students often require a substantial amount of scaffolding to make meaning of a word problem.

**Targets:** identify the expected outcomes by the end of the instructional period for the whole class as well as for different subgroups, as appropriate.

Groups and Targets – students should be sorted into the levels identified below based on the Target Level set for the student. For example, a student may have a baseline level of 'Approaching Expectations' and a target level of 'Exceeding Expectations' has been set for that student. This student's information should be recorded in the "Exceeding Expectations" level.

After the Final Level has been identified, teachers should identify whether each student met or exceeded their target = Yes OR did not meet their target =  $N_0$ .

Student Names	Baseline Level	Target Level	Final Level	Outcome (Yes-met or exceeded target No-did not meet target)		
Exceeds Expectations						
А	Exceeds	Exceeds				
В	Exceeds	Exceeds				
С	Meets	Exceeds				
D	Meets	Exceeds				
Е	Meets	Exceeds				
F	Meets	Exceeds				
G	Meets	Exceeds				
Meets Expectations						
Н	Meets	Meets				
Ι	Meets	Meets				
J	Meets	Meets				
К	Meets	Meets				
L	Meets	Meets				
М	Approaching	Meets				
Ν	Approaching	Meets				
0	Approaching	Meets				
Р	Below	Meets				
Approaching Expectations						
Q	Approaching	Approaching				
R	Approaching	Approaching				

S	Below	Approaching				
Т	Below	Approaching				
U	Below	Approaching				
Below Expectations						
V	Below	Below				

# TARGETS PLANNING QUESTIONS

**Directions for Establishing Targets:** Use the planning information to guide how you will use previous performance to set baseline data as well as to establish expected targets.

**Targets:** identify the expected outcomes by the end of the instructional period for the whole class as well as for different subgroups, as appropriate.

Planning Information for Writing the Target Used to Define Teacher Performance <u>Good</u>

#### **Criteria for Baseline Levels:**

- STAR Math diagnostic reports helped me see which students struggled with number sense which is a foundational skill. I did not use data related to skills that have not been taught yet.
- I-Station Math revealed which students needed the most help with foundational skills. I used this data to cross reference STAR Math data. It also supplied remediation lessons.
- Go Math End of Year Assessment revealed that there were some students that needed extensive remediation in foundational skills and number sense.
- Student attendance reports revealed some attendance issues; however, most of the students did not demonstrate issues in this area.
- It was also noted that several students have IEPs with some significant issues related to ELA which may impact their reading of the word problems.

# **Explanation**

Each assessment is identified and an explanation of the information provided from each assessment is included. The explanation does not include the specific criteria from each assessment that was used for placing students at the different starting levels. Additionally, the explanation does not demonstrate how all of the data sources were used in conjunction with each other

#### <u>Better</u>

- STAR Math diagnostic reports helped me see which students struggled with number sense which is a foundational skill for problem solving. I did not use data related to skills that have not been taught yet.
- Go Math End of Year Assessment revealed that there were some students that needed extensive remediation in foundational skills and number sense.

For each of the above assessments:

- When the student baseline data showed <u>above the benchmark level</u> he/she was determined to be in the <u>Exceeds Expectations</u> baseline level.
- When the student baseline data showed <u>at the benchmark level</u> he/she was determined to be in the <u>Meets Expectations</u> baseline level.
- When the student baseline data showed <u>on watch benchmark level</u> he/she was determined to be in the <u>Approaching Expectations</u> baseline level.
- When the student baseline data showed <u>intervention or urgent intervention benchmark level</u> he/she was determined to be in the <u>Below Expectations</u> baseline level.
- Teacher created math word problem based on second grade math concepts. I used this data to cross reference STAR Math data.

For this assessment:

- When the student demonstrated all of the <u>success criteria without support</u> on second grade concepts he/she was determined to be in the <u>Exceeds Expectations</u> baseline level.
- When the student demonstrated the <u>use of a model or strategy and explains or justifies the</u> <u>answer with support</u> he/she was determined to be in the <u>Meets Expectations</u> baseline level.
- When the student demonstrated partial understanding of the use of a <u>model or strategy and/or</u> <u>explains or justifies the answer with significant support</u> he/she was determined to be in the <u>Approaching Expectations</u> baseline level.
- When the student did not understand the use of <u>modeling or strategies</u> he/she was determined to be in the <u>Below Expectations</u> baseline level.
- Student attendance reports revealed some attendance issues; however, most of the students did not demonstrate repeated absences.
- It was also noted that several students have IEPs with some significant issues related to ELA which may impact their reading of the word problems.

A cross-check between the STAR diagnostic test, Go Math, and teacher created math problems was conducted in an effort to determine if there were discrepancies. The attendance reports and IEP information were used to determine if there were extenuating reasons for students to struggle with the mathematical concepts.

# **Setting Target Levels:**

Most students should be able to demonstrate growth by at least one level based on the analytic rubric. Students who perform significantly below proficiency will work with their teacher as well as the math interventionist to remediate skills that they are lacking.

Good

#### **Explanation**

The explanation provided identifies that all students will be able to demonstrate improved achievement by the end of the year. There is an indication, that with significant support, struggling students will improve. The intention of this part of the planning section is to explain how students were placed in their target level. This explanation refers to the analytic rubric, which was not used to establish the baseline level, so it is unclear how it was used. A better explanation would identify what behaviors students were exhibiting that indicated how the target level was established and what would be expected of students in each level by the end of the school year.

#### <u>Better</u>

Most students should be able to demonstrate growth by at least one level. Only one student met the criteria for remaining in the below expectations target level.

- When the various baseline data sources showed a consistent understanding of second grade math concepts and third grade math concepts that have been taught, use of modeling and strategies, and the ability to communicate mathematical reasoning, he/she was determined to be in the <u>exceeds</u> <u>expectations</u> target level.
- When the various baseline data sources showed that students were able to demonstrate the prerequisite math concepts including some knowledge of modeling and/or strategies, and the ability to communicate mathematical reasoning, he/she was determined to be in the <u>meets expectations</u> target level. By the end of the school year, these students will be able to integrate on-grade level math concepts with modeling, strategy use, and written explanations.
- When the various baseline data sources showed gaps in understanding second grade math concepts, and little knowledge of modeling and/or strategies, and/or the ability to communicate mathematical reasoning, he/she was determined to be in the <u>approaching expectations</u> target level. By the end of the school year, these students will be able to demonstrate on-grade level math concepts. The integration of modeling, strategy use, and written explanations will require scaffolding and support.
- When the various baseline data sources showed gaps in understanding second grade math concepts, and little knowledge of modeling and/or strategies, and/or the ability to communicate mathematical reasoning, and the student was consistently absent and/or had significant IEP needs, he/she was determined to be in the <u>below expectations</u> target level. By the end of the school year, these students will be able to demonstrate some on-grade level math concepts. The integration of modeling, strategy use, and/or written explanations will require significant scaffolding and support.

#### Good

# Ambitious and Realistic:

These targets are realistic for a third grade math learning goal. By the end of the school year students should be able to put all of the aspects of the learning goal together to independently solve on-grade level real-world math problems. The ability to do this demonstrates the meets expectations target level. Students will be given many opportunities to learn the math content standards and use different models and strategies to help build their math comprehension and problem-solving skills.

# **Explanation**

Based on the explanation provided above, the targets set are appropriate for students. All students are identified as having multiple opportunities to integrate the knowledge and skills. This explanation would be strengthened with the inclusion of why the one student in the below expectations level remained in this level. Additionally, including information on how the target levels established for

students demonstrates at least a year's worth of growth for a year's worth of instruction would be beneficial.

#### <u>Better</u>

These targets are realistic and ambitious for this third grade class.

- Two students began the year consistently demonstrating deep conceptual understanding of mathematics concepts based on what they have been taught in previous years and in the current school year. These students will remain at the <u>exceeds expectations</u> level and will engage in enrichment activities, as well.
- Five students starting in the <u>meets expectations</u> level appear to grasp math concepts fairly readily. In conjunction with their strong verbal skills, they should be able demonstrate the knowledge and skills expected of the <u>exceeds expectations</u> level.
- Five students starting in the <u>meets expectations</u> level will remain at this level. These students demonstrate knowledge of pre-requisite concepts and can demonstrate some modeling and strategy use with the second grade concepts. However, when faced with integrating currently learned concepts with modeling, strategies, and explanations, these students require multiple opportunities for practice and some support. This indicates that they will make a full-years' worth of growth ending at on-grade level for this Learning Goal.
- Three students starting in the <u>approaching expectations</u> level will move to the <u>meets expectations</u> level. These students had discrepant scores on the baseline data sources. They were in the on watch level for the diagnostic assessments (STAR and GoMath). However, on the classroom assessment, the students were able to integrate the pre-requisite knowledge and skills with the ability to demonstrate some modeling and strategies, and explain their reasoning. These students regularly attend school and do not have IEPs. Therefore, they should be able to successfully move up to this level.
- One student who began in the <u>below expectations</u> level will also move to the <u>meets expectations</u> level. This student currently demonstrates inconsistencies in demonstrating the pre-requisite math concepts. However, the student demonstrates strong verbal skills. Additionally, this student has just received an IEP and additional support. Between the support from the math interventionist and classroom instruction, I believe this student will be able to make enough gains to demonstrate the ability to independently integrate the grade level math concepts.
- Two students beginning the year in the <u>approaching expectations</u> level will remain at the <u>approaching expectations</u> level. Both students struggle with the math concepts, including modeling and using strategies. One of the students has chronic absenteeism, while the other student has weak verbal skills. These students will make gains, but will remain in need of scaffolding and support on the third grade concepts.
- Three students beginning the year in the <u>below expectations</u> level should be able to make gains to be in the <u>approaching expectations</u> level. These students struggle with concepts and have significant supports; however, once they learn the mathematical concepts they appear to retain them and they are able to verbalize their reasoning. With the anticipated systematic problem-solving instruction to be provided, these students should be able to demonstrate on-grade level

concepts and with scaffolding and supports integrate modeling, strategies, and verbal explanations.

• One student will remain in the <u>below expectations</u> level. This student struggles with prerequisite math concepts including those that were taught in kindergarten and first grade. The student is chronically absent and has an IEP. Multiple interventions will be provided for this student through the IEP and in class.