Grade 3 Unit 1 Cool-Down Guidance

Lesson	Response to Student Thinking	Support
1	Students do not read and interpret the bar graph accurately, or students write questions that can't be answered with the graph.	Use the launch of the next day's activity to have students interpret the picture graph and generate questions that could be answered with the picture graph.
2	Students draw lines into the bars of the bar graph to find the number represented by the bar by counting.	During the launch of the next day's activity, have students discuss how the scale on the bar graph can be used to determine the number of people or objects in each category.
3	Students say 5 sparrows are represented in the graph.	Use the next day's warm-up to practice counting by 5, and discuss how this could be used to read a scaled picture graph.
4	Students draw 4 smiley faces on the graph instead of 2.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
5	Students draw bars that use a scale of 1 instead of a scale of 5.	Use the launch of the next day's activity to discuss the difference between a bar graph that has a scale of 1 and a scaled bar graph.
6	Reflection	
7	Students show they understand which categories to compare, but they use numbers that are not based on the scale of the graph.	Use the launch of the next day's activity to brainstorm tips for reading a scaled graph.
8	Students find sums rather than the differences. In the two-step compare problem, students only find the difference between evening and morning (or evening and lunchtime).	Before the practice problems, pass back the cool down and work in small groups to make corrections.
9	Students indicate that they mixed up the number of groups and the number of objects in each group by making 5 groups of 3.	Use the next day's warm-up to discuss how to represent a situation involving equal groups, differentiating between the number of groups and the number of objects in each group.
10	Students answer no and explain that the diagram should have 10 parts with 4 in each part.	During the launch of the next day's activity, have students discuss a matching situation and diagram, such as cards E and J.
11	Students draw 2 groups of 6.	Use the next day's warm-up to have students practice differentiating the groups in the image from the number of dots in each group.
12	Students add or subtract the numbers in the problem instead of multiplying.	During the launch of the next day's activity, have students discuss what the situations have in common that make them multiplication problems. Ask students to recap the important points of the previous lesson.
13	Students choose drawings, diagrams, or situations that represent addition instead of multiplication.	Use the launch of the next day's activity to discuss how problems that involve multiplication are different than problems that involve addition.
14	Students write a number for the unknown that doesn't make the equation true.	Use the launch of the next day's activity to brainstorm ways to find the unknown number in a multiplication equation.
15	Students find solutions other than 40 toys and 5 piles. Students do not clearly show how they found the solution or do not show a solution.	Before the practice problems, pass back the cool-down and work in small groups to make corrections.
16	Students aren't sure how to arrange cubes into an array.	Use the next day's warm-up to brainstorm tips for arranging objects into an array.
17	Students do not describe how the rows and columns are connected to equal groups.	Use the next day's warm-up to have students discuss how they see equal groups in the array.

18	Students don’t write a multiplication expression that matches the array they created.	Use the launch of the next day's activity to have students discuss how to write an expression that represents an array.
19	Students write an equation that doesn't use a symbol for the unknown number.	Before the practice problems have students discuss how they can represent the problem with an equation before they know the solution, and how they can represent the problem with an equation once they know the solution.

Grade 3 Unit 2 Cool-Down Guidance

Lesson	Response to Student Thinking	Next Day Support
1	Students say that Figure B has the greater area.	Before the warm-up, have students discuss which figure has the largest area.
2	Students write 32 for the number of square tiles used to cover the figure, but write a different number for the area.	During the launch of the next day's lesson, have students discuss how covering a figure with a number of square tiles tells us the area of the figure in square units.
3	Students respond that they agree with Andre.	Before the next day's warm-up, pass back the cool-down and work in small groups to make corrections.
4	Students count the squares one by one to find the area.	Prior to the practice problems, have students practice skip-counting to find the total number of squares in a rectangle.
5	Students create a rectangle that doesn't represent 7 x 4.	Use the launch of the next day's activity to have students discuss how to draw a rectangular area that represents a multiplication expression.
6	Students answer A, but they do not explain that it would take fewer of the larger square to tile the rectangle.	During the launch of the next day's activity, have students discuss whether it would take less square inches or square centimeters to cover a surface (like a desk or book cover) and why.
7	Students select areas that would result in part of a square foot.	During the launch of the next day's activity, have students discuss what would happen if you used square feet to measure the area of a notecard or the cover of a book.
8	Students do not accurately multiply the side lengths or count the square inches in the rectangle.	During the launch of the next day's lesson, have students brainstorm ways to find the total number of square units in a rectangle where no square units are visible.
9	Students measure correctly, but do not multiply the length measurements to find the area of the rectangle.	During the launch of the next day's activity, have students discuss how they could use the given measurements to find the area of the wall.
10	Students do not find the area of each piece of fabric.	Before the warm-up, have students work in partners to discuss a correct response to this cool-down.
11	Students respond with a number other than 16.	Before the practice problems, pass back the cool-down and work in small groups to make corrections.
12	Students gives the area correctly, but do not provide a reason or explanation.	During the launch of the next day's lesson, have students share strategies for finding the total area.
13	Students multiply numbers that represent side lengths of rectangles that overlap.	During the launch of the next day's activity, have students discuss ways that they could decompose the figure to find its area.
14	Students do not accurately find the missing side length.	Before the practice problems, pass back the cool-down and work in small groups to make corrections.

Grade 3 Unit 3 Cool-Down Guidance

Lesson	Response to Student Thinking	Next Day Support
1	Students do not select all the ways that they can represent two hundred fifty-seven.	Before the warm-up, have students discuss different ways that 257 can be decomposed using place value.
2	Students do not find the difference in heights.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
3	Students make a minor mistake carrying out their strategy.	Before the warm-up, pass back the cool down and work in small groups to make corrections.
4	Students find the sum, but do not use an addition algorithm.	During the launch of the next day's activity, have students describe the steps used in the algorithms.
5	Students find the sum, but do not use one of the algorithms they have learned.	During the launch of the next day's activity, have students recap the important points of the previous lessons.
6	Students found the correct sum but did not explain their choice of strategy or algorithm.	Prior to the practice problems, ask students to recap the important points of the previous lesson and discuss strategies or algorithm.
7	Students make a minor mistake carrying out their strategy.	Before the warm-up, have students work in groups to discuss a correct response to this cool-down.
8	Students do not explain the decomposition of a 10 into 10 ones.	During the launch of the next day's activity, have students discuss how the diagram matches the algorithm, specifically how the decomposition of the ten into 10 ones is recorded.
9	Students do not explain the decomposition of a hundred into 10 tens.	Use the warm-up of the next day's lesson to have students consider when they would have to decompose a hundred into more tens.
10	Students find the difference, but do not use an algorithm from the lesson.	During the launch of the next day's activity, have students recap the important points of the previous lessons.
11	Students note ways to subtract that they would like to learn more about.	Pair students up before the warm-up to discuss their responses.
12	Students do not explain how they would subtract.	Before the practice problems, have students recap the important points of previous lesson and discuss the cool-down.
13	Students place 185 on the correct number line, but don't place it in the correct location.	During the launch of the next day's activity, have students discuss where they would place 185 on the second number line.
14	Students select 100 or 170 as the closest multiple of 100 or 10 to 162.	During the launch on the next day's activity, display 162 on a number line marked with multiples of 10 and 100 and have students discuss the nearest multiple of 10 and 100.
15	Students round 237 to 230 or 300 when rounding to the nearest ten and hundred.	During the launch on the next day's activity, display 237 on a number line marked with multiples of 10 and 100 and have students discuss the nearest multiple of 10 and 100.
16	Students do not accurately identify 2 numbers that could be Clare's number.	Before the practice problems, pass back the cool-down and work in small groups to make corrections.
17	Students do not explain why Tyler's statement does not make sense.	Launch the lesson by asking students to recap the important points of the previous lessons.
18	Students select an equation that doesn't represent the situation.	During the launch of the next day's activity, have students discuss how the second equation matches the situation, specifically what the numbers and the letter represent.
19	Students represent the problem with an equation with a symbol for the unknown instead of a letter.	During the launch of the next day's activity, have students brainstorm letters that could be used to replace the symbol based on what the letter represents.

Grade 3 Unit 4 Cool-Down Guidance

Lesson	Response to Student Thinking	Next Day Support
1	Students represent 6 bags of apples instead of 6 apples in each bag.	During the launch of the next day's activity, pass back the cool-down and have students work in pairs to represent the problem with counters and discuss the solution to the problem.
2	Students represent 6 apples in each bag instead of 6 bags with the same number of apples in each.	During the launch of the next day's activity pass back the cool-down and have students work in partners to represent the problem with counters and discuss the solution to the problem.
3	Students choose drawing A, which shows 8 bags instead of 8 markers in each bag.	During the launch of the next day's activity, have students discuss why drawing B matches the situation.
4	Students select responses that correspond to 7 groups of 2 instead of 2 groups of 7.	During the launch of the next day's activity, have students work in partners to discuss a correct response to this cool-down.
5	Students write an expression other than $36 \div 4$ to match the situation or don't find a solution to the problem.	Before the practice problems, have students to work in partners to discuss a correct response to this cool-down.
6	Students say that different numbers should be used to complete each equation.	During the launch of the next day's activity, pass back the cool-down and have students discuss how the missing number in both equations relates to the situation.
7	Students write a multiplication equation and division equation to represent the situation, but don't explain their reasoning.	During the launch of the next day's activity, have students discuss the parts of each equation and how they represent the situation.
8	Reflection	
9	Students find the product of 4 and 8 by drawing a discrete diagram or counting one-by-one.	Before the next day's warm-up, have students discuss which facts on the table could be used to find 4 x 8.
10	Students find the total number of squares in the rectangles, but don't mark or shade the rectangle to represent one of the given expressions.	Before the warm-up, pass back the cool-down and have students discuss how they could represent each of the given expressions by marking or shading parts of the rectangular area.
11	Students find the area of the rectangle, but don't record an expression that represents their strategy.	Before the practice problems, highlight a strategy for finding the area on the rectangle, and discuss how to write expressions that would represent the strategy.
12	Students give the correct product of 6 x 40, but don't provide any reasoning around how they found the product.	During the launch of the next day's activity have students discuss their reasoning about how they know 6 x 40 = 240.
13	Students don't find a solution to the problem.	Use the next day's warm-up to have students discuss how the diagrams could have been used to represent the problems from this lesson.
14	Students don't explain how the diagram represents the expression.	Use the next day's warm-up to have students discuss how the diagram could have been used to represent the problem.
15	Students use an inefficient method that results in an error, such as drawing 6 groups of 15 and miscounting or skip counting by 6 and making a mistake in the count.	Before the warm-up, pass back the cool-down and have students discuss strategies they could use to find the product.
16	Students find the product 4 x 24 of by adding 24 repeatedly.	Launch the lesson by asking students to recap the important points of the previous lesson and discuss efficient strategies.
17	Students solve the problem, but don't write an equation with a symbol for the unknown to represent the situation.	Before the practice problems, pass back the cool-down and have students discuss how the problem could be represented with an equation with a symbol for the unknown number.
18	Students do not find a solution to the problem.	Before the warm-up, pass back the cool-down and have students work in small groups to make corrections.

19	Students do not determine the quotient of $51 \div 3$. .	During the launch of the next day's activity, highlight importance that division can be seen as the number of groups or the size in each group.
20	Students do not find the value of $96 \div 6$.	Before the warm-up, invite students to work in small groups to discuss a correct response and strategies to this cool-down.
21	Students don't find a solution to the problem.	Before the practice problems, pass back the cool-down and work in small groups to make corrections and discuss strategies.

Grade 3 Unit 5 Cool-Down Guidance

Lesson	Response to Student Thinking	Next Day Support
1	Students partition the rectangle into equal parts, but not eight equal parts.	During the launch of the next day's activity, have students discuss the meaning of "sixths" and "eighths."
2	Students label each part in the first rectangle with "8" or "1".	Use the next day's warm-up to discuss what each part in a partitioned rectangle represents.
3	Students answer with the unit fraction that represents each part rather than the fraction that represents the entire shaded portion.	Before the warm-up, pass back the cool down and have students discuss how $\frac{5}{6}$ represents the shaded portion of the rectangle.
4	Students partition the diagram into 8 parts and shade in 6 parts, but the parts aren't equal.	Before the practice problems, pass back the cool-down and have students discuss strategies for partitioning a diagram into 8 equal-sized parts
5	Students have key ideas or lingering questions to discuss with other students.	Before the next day's warm-up, pair students up to discuss their responses.
6	Students do not accurately partition the interval from 0 to 1 into eight parts to locate $\frac{1}{8}$.	Before the next day's warm-up, have students discuss how to partition a number line to show eighths.
7	Students locate $\frac{3}{2}$, but don't locate $\frac{5}{3}$.	During the launch of the next day's activity have students discuss how they would locate one of the fractions greater than 1 on the number line.
8	Students do not use the length of the given unit fraction to locate 1.	During the launch of the next day's activity, have students complete a choral count by thirds, starting at $\frac{1}{3}$. Have students raise their hand, stop the count, and explain their reasoning when they get to the fraction that is equivalent to one.
9	Students do not use $\frac{1}{6}$ or partition the interval between 0 and $\frac{7}{6}$ into 7 equal parts to 1.	Before the practice problems, pass back the cool down and work in small groups to make corrections.
10	Students choose two fractions that are close in size, but not equivalent.	Add this cool-down to Activity 1 to review.
11	Students generate two equivalent fractions, but don't show or explain their reasoning around why any of the fractions are equivalent.	Before the warm up, select a student's cool down from the previous lesson (name anonymous). Ask students to identify what the student did well and what the student needs to do to improve the cool down.
12	Students correctly locate $\frac{3}{4}$ and $\frac{6}{8}$ on each number line, but their lack of precision causes them to say that $\frac{3}{4}$ and are $\frac{6}{8}$ not equal.	During the launch of the next day's activity, have students brainstorm ways to partition number lines so that each part is the same size.
13	Students say that $\frac{18}{4}$ is not a whole number and write 2 as a fraction, but don't explain or show their reasoning.	Before the practice problems, pass back the cool down and have a discussion about this cool-down.
14	Students state that $\frac{6}{4}$ and $\frac{3}{4}$ are equivalent.	Before the warm-up, discuss ways to determine that $\frac{6}{4}$ and $\frac{3}{4}$ are not equivalent.
15	Students' diagrams indicate that they know which fraction is greater, but the symbol in the expression doesn't match their visual representation.	Before the next day's warm-up, have students recap the important points of the previous lesson, specifically the meaning of the symbols < and >.
16	Students explain that $\frac{4}{6}$ is greater than $\frac{4}{3}$ because 6 is greater than 3.	During the launch of the next day's activity, have students pair up and discuss what the denominator of a fraction tells us and how it might help us compare two fractions.

17	Students do not complete the statements that compare each pair of fractions.	Before the practice problems, pass back the cool down and have students work in small groups to make corrections.

Grade 3 Unit 6 Cool-Down Guidance

Lesson	Response to Student Thinking	Next Day Support
1	Students record 2 inches or 3 inches for the length of the rectangle.	During the launch of the next day's activity, have students discuss the meaning of the marks in between the whole-inch marks.
2	Students choose the ruler with the half-inch marks to measure the pencil.	Before the next day's warm-up, pass back the cool-down and discuss how the ruler marked with quarter inches would give a measurement closer to the length of the pencil.
3	Students record a length of the worm that isn't to the nearest quarter inch, such as $3\frac{1}{2}$ inches or 4 inches.	Before the next day's warm-up, pass back the cool-down and have students discuss whether they would describe the length of the worm as $3\frac{1}{2}$ inches or 4 inches and the reasoning behind their choice.
4	Students select choices that indicate they are mixing up the parts of the graph that represent the lengths of the objects and the number of objects (as in options C or E).	Before the next day's warm-up have students discuss what the x's on a line plot represent and what the numbers along the bottom of the line plot represent.
5	Students don't place x's at the locations on the line plot that correspond to the given lengths.	Before the practice problems, invite students to work in small groups to discuss a correct response to this cool-down.
6	Students select objects whose weight is not about a kilogram.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
7	Reflection: Students have ideas they could share with a partner.	After the warm-up in the next lesson, pair students up to discuss their responses.
8	Students say the volume is 2 liters or 4 liters in the first container and 1 liter or 2 liters in the second container.	Before the practice problems, invite students to work in small groups to discuss a correct response to this cool-down.
9	Students do not tell or write time to the nearest minute, only the nearest 5 minutes.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
10	Students do not determine the elapsed time between the time Clare leaves school and the time her soccer practice begins.	During the launch of the next day's activity, brainstorm ways to show your reasoning when solving time problems.
11	Students do not find a solution to problems in which the time crosses the hour.	Before the next day's warm-up, pass back the cool-down and have students discuss ways to keep track of the time when it crosses the hour.
12	Students say that diagram B matches the given situation.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
13	Students choose the wrong operation to solve the problem.	Before the next day's warm-up, pass back the cool-down and brainstorm strategies for solving the problem.
14	For the first problem, students add the minutes but do not account for the change in the hour. For the second problem, students move forward in time by 24 minutes instead of moving back.	Before the warm-up, select a student's cool-down from the previous lesson (name anonymous). Ask students to identify what the student did well and what the student needs to do to improve the cool-down.

Grade 3 Unit 7 Cool-Down Guidance

Lesson	Response to Student Thinking	Next Day Support
1	Students choose statements that do not describe the shape.	Use the next day's warm-up to have students work in partners to describe one of the shapes in detail.
2	Students only describe the number of sides the shape has.	During the launch of the next day's activity, pass back the cool-down and discuss how the shape could be described in more detail.
3	Students choose a quadrilateral that isn't described by all of the hints.	Before the warm-up, have students work in partners to discuss a correct response to this cool-down.
4	Students choose quadrilaterals that are not rhombuses.	During the launch of the next day's activity, highlight important ideas from the previous lesson.
5	Students only identify the first shape as a quadrilateral or rhombus, but not both.	Before the practice problems, pass back the cool-down and work in small groups to make corrections and discuss strategies.
6	Students do not find the perimeter of the shape.	During the launch of the next day's activity, have students discuss strategies they could use to find the perimeter of the shapes.
7	Students do not draw shapes with perimeters of 32 units.	Before the warm-up, pass back the cool-down and work in small groups to make corrections and discuss strategies.
8	Students find the perimeter of the second shape, but they add each side length individually to find the sum.	Before the next day's warm-up, pass back the cool-down and have students brainstorm strategies they could use to find the perimeter of the second shape.
9	Students identify the side that is 32 feet long (opposite of the given side) but not the other two sides of the swimming pool.	Before the practice problem, select a student's cool-down from the previous lesson (name anonymous). Ask students to identify what the student did well and what the student needs to do to improve the cool-down.
10	Students do not determine the amount of fencing Lin will need for her rectangular garden.	Before the warm-up, pass back the cool-down and have students work in small groups to make corrections and discuss strategies.
11	Students draw rectangles with an area of 18 square units instead of a perimeter of 18 units.	Launch the next day's activity by highlighting important ideas from previous lesson including comparing and contrasting area and perimeter.
12	Students draw rectangles that have a perimeter of 36 units instead of an area of 36 square units.	Launch the next day's activity by highlighting important ideas from previous lessons including comparing and contrasting area and perimeter.