

## Grade 5 Unit 1 Cool-Down Guidance

<b>Lesson</b>	<b>Response to Student Thinking</b>	<b>Next Day Support</b>
1	If students don't recognize that object B has a volume of 9 cubes.	Give students access to connecting cubes to build the objects that are displayed in the book.
3	Students do not circle a prism that has 4 layers of 9 cubes.	During the warm-up of the next lesson, encourage students to use the number of layers and the number in each layer to create their estimate.
4	Students do not explain or show how the expression represents the volume of the prism.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
5	Students write a volume that is not a multiple of 12 or the wrong multiple of 12.	Give students access to connecting cubes during activities 1 and 2 of tomorrow's lesson.
6	Students do not correctly identify the expression that does not represent the volume of the prism.	During the warm-up in tomorrow's lesson, ask students to name expressions that might represent the volume of the large cube the boy is sitting in.
7	Students did not label the correct unit of measure or did not find the correct volume.	Before the warm-up, have students work in partners to discuss a correct response to this cool-down.
8	Students did not decompose figures into two rectangular prisms.	Give students access to connecting cubes to build the figures.
9	Students do not find the correct volume of the figure.	Before the warm up, display the figure from the cool down from today's lesson with no numbers showing the side lengths and ask students, "Take turns describing to your partner what you would need to know in order to find the volume of this figure and why you would need to know it."
10	Students write an incorrect expression without showing decomposition of the figure.	Before the warm-up of the next lesson, have students meet with a partner to discuss a correct answer to the cool down from this lesson.
11	Students did not decompose figures into two rectangular prisms.	Give students access to connecting cubes to build the figures or use highlighters or colored pencils to partition the shapes while working the section practice problems.

## Grade 5 Unit 2 Cool-Down Guidance

Lesson	Response to Student Thinking	Next Day Support
1	Students do not draw a diagram that shows equal shares.	During Activity 1, encourage students to draw a diagram to represent each situation in the table and explain where they see the number of people sharing the sandwich in each diagram.
2	Students do not write $\frac{4}{5}$ as the amount of sandwich each person gets.	Before the warm-up of the next lesson, create a display with the students to show the connection between $4 \div 5$ , $\frac{4}{5}$ , and 4 sandwiches being shared by 5 people.
3	Students do not write the division expression in the correct order.	During the synthesis of the warm up, ask students to describe the meaning of the dividend and divisor in the expressions.
4	Students do not write the correct equation.	Before the warm-up, pass back the cool-down and work in small groups to make corrections.
5	Students do not explain why $8 \div 5 = \frac{8}{5}$ .	Create a poster with important terms or vocabulary from this cool-down.
6	Students do not respond that each person ran $2\frac{1}{2}$ miles or $\frac{5}{2}$ mile.	During the Activity 1 Synthesis, connect diagrams to expressions or equations.
7	Students do not select the correct expressions.	Create a poster with a diagram that represents the cool-down from this lesson.
8	Students do not find the value of the expressions.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
9	Students do not find the area.	Before the warm-up of the next lesson, pass back the cool down and work in small groups to make corrections.
10	Students do not find the correct area of the shaded region.	Throughout the next lesson, ask: "How does the multiplication expression represent the area of the shaded region?"
11	Students write an expression that does not match the area.	During the warm up of the next lesson, draw a diagram to represent the last expression in the number talk.
12	Students do not find the correct area of the shaded region.	Throughout the next lesson, ask: "How does the multiplication expression represent the area of the shaded region?"
13	Students do not select all the correct expressions.	Launch activity 1 by reviewing the cool-down from this lesson.
14	Students do not find the correct product.	Before the warm-up, pass back the cool down and work in small groups to make corrections.
15	Students do not find the correct product.	During the next lesson, ask students "What 2 whole numbers is the product between?"

## Grade 5 Unit 3 Cool-Down Guidance

Lesson	Response to Student Thinking	Next Day Support
1	Students do not draw a diagram that represents $\frac{1}{2}$ of $\frac{1}{5}$ .	During activity 1 of the next day's lesson, ask these students to explain where they see each fraction in their diagrams.
2	Students do not write a correct multiplication expression to represent the area of the shaded region.	Before the launch of the next lesson, brainstorm a list of strategies students used to write multiplication expressions that represented the diagram in the cool down.
3	Students don't write equations that represent the diagrams.	During the synthesis of the warm-up in the next lesson, draw diagrams to represent the equations and ask students to explain how the diagrams represent the equations.
4	Students do not write the correct multiplication expression to represent the soccer fields or identify the amount the whole park that is soccer fields.	During the synthesis of the warm-up in the next lesson, draw rows and columns on the diagram to represent the expression $\frac{3}{5} \times \frac{1}{2}$ . Ask students to explain how the rows and columns help them identify the approximate shaded area.
5	Students do not write an accurate multiplication equation.	Before Activity 1, brainstorm a list of strategies for writing equations that represent the area of shaded regions.
6	Students do not write a multiplication expression that represents the area of the shaded region.	During the launch of Activity 1 in the next lesson, suggest that students adapt the area diagram to show the rows and columns and the relationship of the shaded region to the unit square.
7	Students do not find the correct value to make each equation true.	During the synthesis of the warm-up, prompt students to brainstorm a list of strategies they use to multiply fractions.
8	Students don't write a correct solution.	Before the next lesson, review the cool-down with students and ask them to explain how much of the whole flag is shaded blue.
11	Students' diagrams do not accurately represent the situation, or they do not write a correct division expression.	Launch the first activity by asking students to explain how the expression represents the diagram.
12	Students do not write $\frac{1}{5} \div 2 = \frac{1}{10}$ .	Create a poster that displays students' strategies for dividing a unit fraction by a whole number.
13	If students do not identify the correct amount of pieces.	During the synthesis of the warm-up, ask students how the division equations could represent paper strips being cut into certain sized pieces.
14	Students do not find the correct value of their expression.	Launch the second activity by asking students to explain whether they think the value of each expression will be greater than or less than 1.
15	Students don't match each situation to the correct expression.	Before the next lesson, match students up to discuss a correct response to the cool-down.
16	Students did not write reasonable answers.	During the activities, ask students to draw a picture or act out a problem before solving.
17	Students do not explain their reasoning.	Before the next lesson, have students work in pairs to pose questions in order to understand each other's explanations better.
18	Students write a correct multiplication equation or a correct division equation but not both.	Before the next lesson, work with students to create a poster that shows how the diagram represents both division and multiplication.
19	Students do not write the largest possible product.	Before the warm-up, have students work in partners to discuss a correct response to this cool-down.

## Grade 5 Unit 4 Cool-Down Guidance

Lesson	Response to Student Thinking	Next Day Support
1	Students do not find all the correct values of the expressions.	After the next lesson, refer to the completed cool-down from today's lesson and ask, "What diagram would be helpful to make sense of these problems?"
2	Students do not draw a diagram that represents the product.	Launch the warm-up by drawing a diagram to represent the product in the estimation exploration. Ask, "How does the diagram represent the product?"
3	Students do not find the value of $415 \times 43$ .	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
4	Students do not use the standard algorithm correctly.	Launch activity 1 with a discussion about this cool-down.
5	Students do not use the standard algorithm correctly.	Create a poster with the steps to solving the cool-down problem from the previous lesson.
6	Students do not use the standard algorithm correctly.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
7	Students do not use the standard algorithm correctly.	Launch activity 2 with a discussion about this cool-down.
8	Students have ideas they could share with a partner.	After the warm-up in the next lesson, pair students up to discuss their responses.
9	Students do not calculate the correct range of volumes.	Before the warm-up in the next lesson, invite students to work in partners and discuss a correct response to the cool-down from this lesson.
10	If students do not find the correct amount of the number of groups of 8 dancers.	Before the warm-up, pass back the cool-down and work in small groups to make corrections.
11	Students find the correct partial quotients or products but do not combine them and record them as the final quotient.	During the launch of activity 1 in the next lesson, discuss a correct solution to the cool-down from this lesson.
12	Students do not finish the algorithm correctly.	Before the launch of activity 1 of the next lesson, review the cool-down from this lesson and record the multiplication expressions that were used to find each of the partial quotients in the solution.
13	Students do not find the correct solution.	During the launch of activity 1 in the next lesson, discuss a correct solution to the cool-down from this lesson.
14	Students need support using an algorithm that uses partial quotients.	During the synthesis of activity 1, invite students to share their solutions for the division problems and describe which multiplication expressions they used to find each of the partial quotients.
15	Students do not correctly use a strategy that uses partial quotients when calculating.	Create a poster with the steps to solving the cool-down problem from the previous lesson.
16	Students have ideas they could share with a partner.	After the warm-up in the next lesson, pair students up to discuss their responses.
17	Students don't choose an expression that results in whole number partial quotients.	After the warm-up, pair students up to discuss their cool-down from this lesson and make revisions.
18	Students do not respond with reasonable estimates.	Launch warm-up or activity 1 by highlighting important notation from previous lessons.
20	Students do not calculate 271,200 as the area.	Before the next day's warm-up, pair students up to discuss their responses.
21	Students do not determine the correct number of days it would take to fill the shipping container.	Before the first activity, pair students up to discuss their responses.

## Grade 5 Unit 5 Cool-Down Guidance

Lesson	Response to Student Thinking	Next Day Support
1	Students have ideas to share with a partner.	After the warm-up in the next lesson, pair students up to discuss their responses.
2	Students do not explain or show another way to represent the decimal.	Launch warm-up or activity by creating a poster of the different representations students used in the cool-down of this lesson.
3	Students do not represent the number correctly.	Launch Warm-up or Activity 1 by highlighting important ideas from previous lessons.
4	Students do not accurately explain a different set of weights that would balance the gold nugget.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
5	Students do not accurately explain a different of tenths and hundredths for comparing.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
6	Students do not represent the number correctly.	Launch warm-up or activity by creating a poster of the difference between tenths and hundredths on a number line.
7	Students do not accurately round or plot the numbers.	After the warm-up in the next lesson, pair students up to discuss their responses.
8	Students do not write the correct number when rounding.	During the warm-up of the next lesson, use number lines to represent the decimals in the inequalities.
9	Students do not write the numbers in order from least to greatest.	Launch Activity 1 with a discussion about this cool-down.
10	Students do not round correctly.	Before the warm-up, pass back the cool down and work in small groups to make corrections.
11	Students do not find the correct value of the sum.	Before the warm-up of the next lesson, pair students up to discuss their responses from the cool-down of this lesson.
12	Students do not find the correct value of the sum.	Before the warm-up of the next lesson, pair students up to discuss their responses from the cool-down of this lesson.
13	Students do not find the correct value of $38.7 + 9.46$ .	Prior to the next lesson, brainstorm a list of possible strategies to use to solve the cool-down problem from today's lesson.
14	Students do not find the correct difference.	During the launch of activity 1 of the next lesson, discuss correct solutions of the cool-down from this lesson.
15	Students do not find the correct solution.	Throughout the lesson, ask, "What did you learn yesterday that was helpful in this activity?"
16	Students do not find the correct value of the expressions.	Create a poster with a diagram that represents the cool-down from this lesson.
17	If students do not find the correct value of the expressions.	Launch Activity 1 with a discussion about this cool-down.
18	Students do not write the correct numbers to make true equations.	Launch activity 1 of the next lesson by discussing a correct response to the cool-down from this lesson.
19	Students choose expressions that are not equivalent to $15 \times 0.19$ .	Launch the warm-up or Activity 1 by highlighting important notation from previous lessons.
20	Students do not find the correct values of the products.	Create a poster with a diagram that represents the cool-down from previous lessons.
21	Students do not explain why the expressions are equal.	Create a poster with important terms and expressions from this cool-down.
22	Students do not evaluate the expressions correctly.	Throughout the lesson, ask, "How does this connect to the work you did in yesterday's lesson?"
23	Students do not evaluate the expressions correctly.	Before the warm-up, invite students to work in small groups to discuss a correct response to this cool-down.
24	Students do not find the correct value of $0.8 \div 5$ .	Launch the warm-up or Activity 1 by highlighting important notation from previous lessons.
25	Students do not find the correct value of $1.6 \div 0.01$ or $2.87 \div 0.01$ .	Create a poster with the steps to solving the cool-down problem from the previous lesson.

## Grade 5 Unit 6 Cool-Down Guidance

<b>Lesson</b>	<b>Response to Student Thinking</b>	<b>Next Day Support</b>
1	Students don't write the correct solutions.	Before the next day's warm-up, pair students up to discuss their responses.
2	Students do not use correct exponential notation or do not correctly write the power of ten in standard form.	Create a poster with a diagram that represents the cool-down from this lesson.
3	Students do not recognize or explain a relationship.	Give students access to meter sticks during activity 1 of the next lesson.
4	Students do not divide correctly by 1,000 when they convert meters to kilometers.	After the warm-up in the next lesson, pair students up to discuss their responses.
5	Students don't write the correct solutions.	Before the next day's warm-up, pair students up to discuss their responses.
6	Students don't write the correct solutions.	After the warm-up in the next lesson, discuss strategies that can be used to find the product.
7	Students do not write the correct number of inches or yards.	Before the checkpoint and practice, pass back the cool-down and work in small groups to make corrections.
8	Students do not find the correct value of the sum.	During the warm-up of the next lesson, use diagrams to represent student thinking.
9	Students do not find the value of the expression.	During the warm-up of the next lesson, use expressions and equations to represent student thinking.
10	Students do not find the value of $\frac{4}{5} + \frac{2}{7}$ .	During the warm-up of the next lesson, highlight notation to write equivalent expressions with common denominators.
11	Students don't find the value of each expression.	Create a poster with the steps to solving the cool-down problem from the previous lesson.
12	Students do not use equivalent fractions to create an equivalent expression with like denominators.	Launch the lesson by asking students to recap the important points of the previous lessons.
13	Students don't use 18 as a common denominator to find the value of $\frac{5}{6} + \frac{2}{9}$ .	Launch Activity 1 with a discussion about this cool-down.
14	Students do not find the correct sum from the data in the line plot.	After the warm-up in the next lesson, ask students to recap how to interpret information from a line plot.
15	Students have something they want to share with a partner	After the warm-up in the next lesson, pair students up to discuss their responses.
16	Students do not reason about the size of the product based on the size of factors in relation to 1 to determine whether the expression is greater than or less than 20.	Throughout the lesson, ask, "What diagram would be helpful in making sense of this problem?"
17	Students multiply to determine the order of the numbers of pages.	Launch warm-up or activities by highlighting important representations from previous lessons.
18	Students do not write fractions that make true statements.	Throughout the lesson, ask, "What diagram would be helpful in making sense of this problem?"
19	Students do not explain why the solution will be greater or less than 1.	Create a poster with a diagram that represents the cool-down from this lesson.
20	Students multiply to determine if the expression is greater than, less than, or equal to the fraction.	Create a poster with a diagram that represents the cool-down from previous lessons.

## Grade 5 Unit 7 Cool-Down Guidance

<b>Lesson</b>	<b>Response to Student Thinking</b>	<b>Next Day Support</b>
1	Student response does not reference the numbers on either scale of the grid.	Give students access to the language display from this lesson during the first activity of the next lesson.
2	Students do not plot the point correctly.	During the warm-up of the next lesson, ask students to plot and name points on the coordinate grid.
3	Students do not plot the points correctly.	Before the next lesson, go over a correct response from the cool down in today's lesson.
4	Students do not correctly name two quadrilaterals.	Before the warm up of the next lesson, display the shapes from the cool down and discuss the attributes of each quadrilateral.
5	Students identify a figure that is not a trapezoid.	Before the warm up of the next lesson, place the shapes from the cool down of this lesson in the diagram used during the synthesis of this lesson.
6	Student's explanation does not mention parallel lines.	After the warm-up in the next lesson, pair students up to discuss their responses.
7	Students incorrectly place figures in the diagram.	Before the next lesson, review a correct solution to the cool down from this lesson.
8	Students do not accurately complete the statements based on attributes.	Before the next lesson, display the shapes from the cool down and discuss the attributes of each triangle.
9	Students do not notice the pattern between the two patterns.	Launch Activity 1 by reviewing a correct response to the cool-down.
10	Students do not recognize that the number 90 will not be in the pattern.	During the synthesis of first activity in the next lesson, ask students to identify numbers that would not be part of the patterns described in the activity.
11	Students don't plot the points correctly.	Launch Activity 1 by reviewing a correct response to the cool-down.
12	Students do not explain the information they get from the point correctly.	After the warm-up in the next lesson, pair students up to discuss their responses.
13	Students do not have a strategy to compute area and perimeter.	Before the checkpoint and practice, pass back the cool-down and work in small groups to make corrections focusing on strategies for both area and perimeter.