

5th Grade Maths Lesson Plan — Chapter 6: The Dairy Farm

School Name: _____ Teacher: _____

From Date: _____ To Date: _____

Learning Outcomes :

- Apply the commutative property to solve multiplication problems effectively.
- Multiply multi-digit integers smoothly using splitting and area box formats.
- Recognize mathematical shortcuts like finding the nearest product multiple.

Stage	Learning Goals	What the Teacher Does	What the Students Do	Tools & Materials	Sign
Engage (Get Interested)	Frame multiplication as an open array grid alignment.	Display a grid layout of items arranged on a shelf. Ask: 'What is the physical difference between 6×13 items and 13×6 items?'	Rotate arrays to verify that while the group arrangement switches, the final product value matches perfectly.	Grid block array boards, token sheets.	
Explore (Look & Find)	Investigate diverse styles for splitting numbers to multiply.	Challenge students to solve 14×5 . Encourage them to find different mental paths to break down the numbers.	Compare approaches: One group splits 14 into $(10+4) \times 5$; another uses a doubling-and-halving trick ($7 \times 10 = 70$).	Strategy log notebooks, counting chips.	
Explain (Learn & Understand)	Codify standard placeholder tracking for partial products.	Present standard column multiplication side-by-side with an area model layout. Show why cross-multiplication zero placeholders appear.	Trace horizontal lines matching values back to their local place columns, verifying step products before combined addition.	Color-matched zero column grid sheets.	
Elaborate (Think Deeper)	Use rounding adaptations to evaluate products near major tens benchmarks.	Model the nearest multiple estimation shortcut for 7×52 or 12×28 by rounding numbers to convenient bases.	Apply product estimation shortcuts to solve contextual classroom tasks (e.g., finding seating for 35 rows with 42 seats each).	Optimization shortcut rule templates.	
Evaluate (Check Progress)	Check multi-digit multiplication accuracy through real-world word problems.	Provide a final worksheet containing multi-digit product challenges and word-based scenario setups.	Work out partial lines, handle zero column shift placement accurately, and sum lines for final solutions.	Final multiplication competency check sheets.	