**THE MORNING STAR SCHOOL LTD.  
  
  
WEEKLY LESSON PLAN**

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| **WEEK ENDING** | 2nd May, 2025 |
| **DAYS** | M o n d a y - F r i d a y |
| **DURATION** | 4 periods per class |
| **SUBJECT** | Mathematics |
| **STRAND** | Strand 1: Number |
| **SUBSTRAND** | Sub-strand 1.4: Perfect Squares |
| **CLASS** | Basic Eight |
| **CLASS SIZE** | A(28) B(28) C(28) |
| **CONTENT STANDARD (ANNOTATION)** | * B8.1.4.1: Learners will demonstrate an understanding of perfect squares. |
| **LEARNING INDICATOR(S)** | * B8.1.4.1.1: Identify and explain perfect squares up to 400. |
| **PERFORMANCE INDICATOR(S)** | * By the end of the lesson, learners should be able to: 1. Define and identify perfect squares up to 400. 2. Calculate the square of numbers up to 20. 3. Solve real-life problems involving perfect squares. |
| **TEACHING/LEARNING RESOURCES (TLMS)** | * Charts of perfect squares * Markers * Whiteboard * Number cards * Real-life objects such as square tiles |
| **CORE COMPETENCIES** | * Critical Thinking (CP) * Problem Solving (PS) * Collaboration (CC) |
| **KEY WORDS** | * Perfect Square * Square Root * Exponent * Area * Multiplication * Square Tile * Number Pattern |
| **R.P.K** | Learners are already familiar with basic multiplication and exponents from previous classes. |

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| **PHASE 1: STARTER** | **PHASE 2: MAIN** | **PHASE 3: REFLECTION** |
| Begin the lesson by asking students if they have ever heard the term 'perfect square' and what they think it might mean. Use a quick mental math activity: call out numbers and ask them to find the product of the number with itself (e.g., 3 x 3, 5 x 5). This will engage their prior knowledge and set the stage for the lesson on perfect squares. | Objective: By the end of this lesson, learners will be able to define, identify, and calculate perfect squares up to 400, and solve basic problems involving perfect squares.  Introduction: Start by explaining that a perfect square is a number that can be expressed as the product of an integer with itself. For example, 9 is a perfect square because it is 3 multiplied by 3. Use real-life examples such as square tiles used in flooring. If a tile measures 1 meter on each side, then the area is 1 square meter. Similarly, if a tile measures 3 meters on each side, the area is 9 square meters, demonstrating that 9 is a perfect square.  Explanation and Modeling: Write numbers 1 to 20 on the board and demonstrate how to calculate the square of each number. Show examples such as 4² = 16 and 10² = 100. Explain how these calculations relate to finding the area of a square.  Guided Practice: Distribute number cards to each group of students. Have them work in pairs to calculate the square of numbers provided on the cards. Then, ask each pair to share their results with the class.  Interactive Activity: Organize a 'Square Hunt' in the classroom where students find objects that are square-shaped and measure their sides to confirm they are perfect squares.  Independent Practice: Provide three problems for students to solve independently: 1. Calculate the square of 12. 2. Identify if 144 is a perfect square and find its square root. 3. A square garden has an area of 81 square meters. What is the length of one side of the garden?  Engagement and Relevance: Emphasize how understanding perfect squares is useful in various real-life situations, such as calculating areas and solving problems involving square roots. This knowledge is also foundational for future math topics like algebra. | Conclude the lesson by asking students to reflect on what they learned about perfect squares. Pose questions like 'Why is understanding perfect squares important?' and 'Can you think of other places where you might encounter perfect squares in real life?' Address any misconceptions by reviewing common mistakes, such as confusing the process of squaring a number with multiplying different numbers. |

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| **ASSESSMENTS** |  |
|  | Observe learners' participation during activities and discussions. Check classwork for accuracy and understanding. Provide immediate feedback and address any misunderstandings. Encourage peer review during group activities.  Assign students to find three real-life examples of perfect squares in their homes or communities. They should write down the objects and calculate the area or provide a brief explanation of how they determined the object is a perfect square. Additionally, ask them to solve the following problem: 'Is 225 a perfect square? If so, what is its square root?' |