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

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| **WEEK ENDING** | 24th January, 2025 |
| **DAYS** | M o n d a y - F r i d a y |
| **DURATION** | 4 periods per class |
| **SUBJECT** | Mathematics |
| **STRAND** | Strand 2: Algebra |
| **SUBSTRAND** | Substrand 2.1: Patterns and Relationships |
| **CLASS** | Basic Seven |
| **CLASS SIZE** | A(28) B(28) C(28) |
| **CONTENT STANDARD (ANNOTATION)** | * B7.2.1.1: Demonstrate understanding of patterns and relationships in numbers and shapes |
| **LEARNING INDICATOR(S)** |  |
| **PERFORMANCE INDICATOR(S)** | * Students will be able to identify patterns in number sequences. * Students will describe relationships between numbers using patterns. * Students will apply patterns to solve real-life problems. |
| **TEACHING/LEARNING RESOURCES (TLMS)** | * Charts * Markers * Whiteboard * Pattern blocks * Number cards |
| **CORE COMPETENCIES** | * Critical Thinking (CP) * Creativity and Innovation (CI) * Collaboration (CC) |
| **KEY WORDS** | * Pattern * Sequence * Relationship * Number * Repetition * Order * Predict |
| **R.P.K** | Learners have been exposed to basic arithmetic operations and have encountered patterns in natural phenomena and art. |

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| **PHASE 1: STARTER** | **PHASE 2: MAIN** | **PHASE 3: REFLECTION** |
| Begin with an engaging question: 'Have you ever noticed patterns in your environment, like the stripes on a zebra or the design on a kente cloth? Today, we will explore how patterns help us understand numbers and solve problems.' | The lesson objective is to enable students to identify and describe patterns and relationships in numbers and shapes. Start by introducing patterns using Ghanaian kente cloth as an example. Explain how the repetition of symbols and colors forms a pattern. Similarly, in mathematics, patterns can be found in numbers. Present the first real-life example: the sequence of days in a week (Monday, Tuesday, etc.) and how they repeat to form a pattern. Explain that just like the days of the week, numbers can also form sequences. Use a number line to illustrate an arithmetic sequence (e.g., 2, 4, 6, 8, ...).  Next, introduce the concept of relationships between numbers. Use a simple pattern like 3, 6, 9, 12, and ask students to identify the rule (adding 3 each time). Discuss how identifying the rule helps in predicting the next numbers in the sequence. For modeling, write several number patterns on the board (e.g., 5, 10, 15, 20, ...; 1, 4, 9, 16, ...) and guide students to identify the rules. Explain that the first sequence adds 5 each time, while the second sequence involves squaring consecutive integers (1^2, 2^2, 3^2, 4^2).  For guided practice, group students and provide pattern blocks. Ask them to create their own patterns using the blocks and describe the rule. Encourage students to collaborate and share findings with the class. Another activity could involve providing students with missing numbers in a sequence and having them fill in the gaps based on the identified pattern.  For independent practice, give students three sequences with missing numbers to complete: 10, \_, 30, 40, ... (add 10); 2, 4, \_, 8, 10, ... (add 2); and 1, 3, 6, \_, 15, ... (triangular numbers, add 3, then 4, etc.). Students should write down the rule for each sequence. | Conclude the lesson by asking students what patterns they discovered. Discuss common mistakes, such as assuming a pattern without checking the rule. Relate patterns to real-life scenarios like budgeting (predicting expenses) or planning events (scheduling). Encourage students to observe patterns in other subjects, such as science (life cycles) or music (rhythms). |

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| **ASSESSMENTS** |  |
|  | Observe student participation during group activities and check their classwork for understanding of patterns. Provide feedback by highlighting correct identifications and clarifying misunderstandings. Use oral questions to assess comprehension.  Ask students to find a pattern in their home environment (e.g., tiled floor designs, daily routines) and describe the rule. They should write a short paragraph explaining the pattern and how it helps in organizing or predicting events, to be submitted in the next class. |