**MATHEMATICS LESSON PLAN**

**GRADE 7**

**TERM 1: January – March**

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| **PROVINCE:** |  |
| **DISTRICT:** |  |
| **SCHOOL:** |  |
| **TEACHER’S NAME:** |  |
| **DATE:** |  |
| **DURATION**: | 1 Hour |

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| 1. **TOPIC: GEOMETRY OF 2D SHAPES:** Classifying 2D shapes **(Lesson 3)** |

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| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson learners should know and be able to** describe, sort, name and compare quadrilaterals (rectangles and parallelograms) in terms of: length of sides, parallel and perpendicular sides, sizes of angles (right angles or not) |

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| 1. **RESOURCES:** | textbooks, DBE Workbook, Sasol-Inzalo Workbook |
| 1. **PRIOR KNOWLEDGE:** | * Properties of a square and a rhombus * Properties of 2D shapes done in Grade 6 |
| 1. **REVIEW AND CORRECTION OF HOMEWORK** (suggested time: 10 minutes)   Homework provides an opportunity for teachers to track learners’ progress in the mastery of mathematics concepts and to identify the problematic areas which require immediate attention. Therefore it is recommended that you place more focus on addressing errors from learner responses that may later become misconceptions. | |
| 1. **INTRODUCTION** (Suggested time: 10 Minutes)   **NB:** Revise the work done in Grade 6 and pre-knowledge from the previous lesson.  Ask learners the following questions:   * State two properties of a square. * State two properties of a rectangle. | |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching Activities** | **Learning activities**  (Learners are expected to :) |
| **Activity 1**   * Use protractor to measure the angles of the following quadrilaterals: * Record the findings in the table provided * Discuss your findings with other groups   L  M  K  N  P  O  Q  R  **Rectangle Parallelogram**  **NB**: Ensure that learners are able to use the protractor and the ruler properly.  Encourage learners to use the correct language and correct notations to describe properties of shapes   |  |  | | --- | --- | | **Rectangle** | **Parallelogram** | | KL= | OP = | | KN= | OR= | | KM= | OQ= | | LN= | PR= | | K = | O = | | L = | P = | | M = | Q = | | N = | R = |   Once learners have finished completing the table, ask them questions similar to the one below:   * How do the sides of the rectangle compare? Are they equal/ parallel/ perpendicular? * How do the sides of the parallelogram (parm) compare? Are they equal/ parallel/ perpendicular? * How do the angles of the rectangle compare? Are they equal? * How do the angles of the parm compare? Are they equal? * Which angles are equal in the parm? * What are the similarities between a rectangle and a parm? * What are the differences between a rectangle and a parm? * Is a parallelogram a rectangle? motivate | * Work in pairs * Wok on Activity 1 * Use protractor to measure angles and sides of given quadrilaterals * Compare the rectangle and parallelogram in terms of opposite sides and opposite angles * measure and record the lengths of lines connecting opposite vertices of a rectangle and a parallelogram |
| 1. **CLASSWORK** (Suggested time: 15 minutes) | |
| The following questions are taken from Sasol Inzalo, page 123 and page 126     1. The figures in group 1 are called **parallelograms**.   (a) What do you observe about the opposite sides of parallelograms?  (b) What do you observe about the angles of parallelograms?     1. The figures in group 4 are called **rectangles**.   (a) What do you observe about the opposite sides of rectangles?  (b) What do you observe about the angles of rectangles?  (c) What do you observe about the adjacent sides of rectangles? | |
| 1. **CONSOLIDATION / CONCLUSION & HOMEWORK (Suggested time: 5 minutes)** | |
| 1. **Emphasise the following**:  * A rectangle is a quadrilateral with the following properties * Opposite sides are equal and parallel * All angles are equal and each is 900 * A parallelogram is a quadrilateral with the following properties * Opposite sides are equal and parallel * Opposite angles are equal is size, but not necessarily 900 * A rectangle is a parallelogram, but a parallelogram is not always a rectangle.  1. The primary purpose of Homework is to give each learner an opportunity to demonstrate mastery of mathematics skills taught in class. Therefore Homework should be purposeful and the principle of ‘Less is more’ is recommended, i.e. give learners few high quality activities that address variety of skills than many activities that do not enhance learners’ conceptual understanding.   Carefully select appropriate activities from the Sasol-Inzalo workbooks, workbooks and/or textbooks for learners’ homework. The selected activities should address different cognitive levels.  **Recommended Homework:**  Consider the quadrilaterals above you have learnt about in this lesson and the previous lesson (Square, rhombus, rectangle and parallelogram). Use knowledge of these quadrilaterals to answer the questions below:  (a) In which quadrilaterals are both pairs of opposite sides parallel?  (b) In which quadrilaterals is at least one pair of adjacent sides equal?  (c) In which quadrilaterals are all four angles equal?  (d) In which quadrilaterals are all the sides in each quadrilateral equal?  (e) In which quadrilaterals are all four sides equal?  (f) In which quadrilaterals is each side perpendicular to the sides adjacent to it?  (g) In which quadrilaterals are opposite sides equal?  (h) In which quadrilaterals is at least one pair of opposite sides parallel?  (j) In which quadrilaterals are all the angles right angles? | |