**MATHEMATICS LESSON PLAN**

**GRADE 9**

**TERM 2: April – June**

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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 15)** |

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| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson learners should know and be able to:**   * write clear definitions of quadrilaterals in terms of their sides, angles and diagonals distinguishing between: * parallelogram. * rectangle. * square * rhombus * trapezium * kite |

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| 1. **RESOURCES:** | DBE workbook 1, Sasol-Inzalo Book 1, textbooks, protractor,  ruler, pencil. |
| 1. **PRIOR KNOWLEDGE:** | * + types of quadrilaterals   + constructions |
| 1. **REVIEW AND CORRECTION OF HOMEWORK** (suggested time: 10 minutes)   Homework provides an opportunity for teachers to track learner’s 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. | |

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| 1. **INTRODUCTION** (Suggested time: 10 Minutes) |
| **Activity:**    Give learners the worksheet to define the given quadrilaterals in terms of sides, angles and diagonals:   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Type of quadrilateral | Sides | Angles | Diagonals equal in length  (yes/no) | Diagonals bisect each other  (yes/no) | Diagonals are perpendicular to each other (90o)  (yes/no) | |  |  |  |  |  |  | | Parallelogram |  |  |  |  |  | | Rectangle |  |  |  |  |  | | Square |  |  |  |  |  | | Rhombus |  |  |  |  |  | | Trapezium |  |  |  |  |  | | Kite |  |  |  |  |  | |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities (Learners are expected to: )** |
| Learners are expected to complete the table: | * complete activities |

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| 1. **CLASSWORK ACTIVITIES (Suggested time: 15 minutes)** |
| Learners are expected to:  **Activity**   1. Look at the properties of a square and a rhombus:   (a) Are all the properties of a square also the properties of a rhombus? Explain.  (b) Are all the properties of a rhombus also the properties of a square? Explain.  (c) Which statement is true?   1. A square is a special kind of rhombus. 2. A rhombus is a special kind of square. 3. Look at the properties of rectangles and squares.   (a) Are all the properties of a square also the properties of a rectangle? Explain.  (b) Are all the properties of a rectangle also the properties of a square? Explain.  (c) Which statement is true?   1. A square is a special kind of rectangle. 2. A rectangle is a special kind of square. 3. Look at the properties of parallelograms and rectangles.   (a) Are all the properties of a parallelogram also the properties of a rectangle? Explain.  (b) Are all the properties of a rectangle also the properties of a parallelogram? Explain.  (c) Which statement is true?   1. A rectangle is a special parallelogram. 2. A parallelogram is a special rectangle. 3. Look at the properties of a rhombus and a parallelogram. Is a rhombus a special kind of parallelogram? Explain. 4. Compare the properties of a kite and a parallelogram. Why is a kite not a special kind of parallelogram? 5. Compare the properties of a trapezium and a parallelogram. Why is a trapezium not a special kind of parallelogram? |

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| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK / WORKSHEET (Suggested time: 5 minutes)** |
| **Summary:**   |  |  |  | | --- | --- | --- | | Type of quadrilateral | Definition | Example of quadrilateral | |  |  |  | | 1. A parallelogram | Has both pairs of opposite sides parallel and equal |  | | 1. A rectangle | Has all four angles equal to 90o  Has opposite sides equal  Diagonal bisect each other |  | | 1. A square | Has all four sides equal in length and angles equal to 90o |  | | 1. A rhombus | Has all four sides equal in length  Opposite sides are parallel  Diagonals bisect each other at 90o |  | | 1. A trapezium | Has at least one pair of opposite sides parallel |  | | 1. A kite | Has two pairs of adjacent sides of equal length |  |  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 Book 1, DBE workbooks and/or textbooks for learners’ homework. The selected activities should address different cognitive levels.   **Homework**  DBE Workbook 1, page 128 No. 1 |