**MATHEMATICS LESSON PLAN**

**GRADE 7**

**TERM 1: JANUARY – MARCH 2017**

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

|  |
| --- |
| 1. **TOPIC: GEOMETRY OF 2 D SHAPES:** Classifying 2D shapes **(Lesson 2)** |
| 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 (square and rhombus) in terms of: length of sides, parallel and perpendicular sides, sizes of angles (right angles or not) |

**Grade 7 Lesson Plan: – Term 1**

**GEOMETRY OF 2D SHAPES: Classifying 2-D Shapes (Lesson 1)**

**(Draft)**

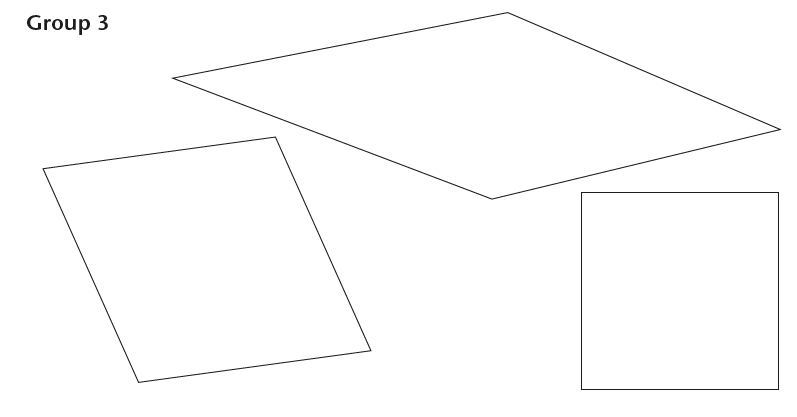
**Grade 7 Lesson Plan: – Term 1**

**GEOMETRY OF 2D SHAPES: Classifying 2-D Shapes (Lesson 1)**

**(Draft)**

|  |  |  |
| --- | --- | --- |
| 1. **RESOURCES:** | Textbooks, DBE Workbook 1, Sasol-Inzalo book 1 | |
| 1. **PRIOR KNOWLEDGE:** | classify:   * polygons in terms of the number of sides. * quadrilaterals in terms of the length of sides * quadrilaterals in terms of the type of interior angle. | |
| 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.** Revision on work done in Grade 6.  Ask learners the following questions:   1. What is a quadrilateral? 2. Name and draw any three quadrilaterals | | |
| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | | |
| **Teaching activities** | | **Learning activities**  (Learners are expected to :) |
| **Activity 1**   * 1. Identify opposite sides in each figure   2. Identify opposite angles in each figure   A  R  P  Q  K  E  S  M  **Figure 1 Figure 2**  Measure and record the dimensions in the table provided below:   |  |  | | --- | --- | | **Figure 1**: Square | **Figure 2:** Rhombus | | PQ = | RA = | | QM = | AK = | | MS = | KE = | | SP= | ER = | | P = | R = | | Q = | A= | | M = | K = | | S = | E = | | | * work on activity 1 as individuals * use protractor to measure angles and ruler to measure sides of square and rhombus * compare the square and rhombus in terms of opposite sides and opposite angles * record the lengths of lines connecting opposite vertices of square and rhombus * discuss their findings |
| Once learners have finished completing the table, ask them questions similar to the one below:   * How do the sides of the square compare? Are they equal/ parallel/ perpendicular? * How do the sides of the rhombus compare? Are they equal/ parallel/ perpendicular? * How do the angles of the square compare? Are they equal? * How do the angles of the rhombus compare? Are they equal? * Which angles are equal in the rhombus? * What are the similarities between a square and a rhombus? * What are the differences between a square and a rhombus? * Is a rhombus a square? Justifyyour answer. | |  |

|  |
| --- |
| 1. **CLASSWORK** (Suggested time: 15 minutes) |
| S  T  W  U  5cmmm  **(i)** If the provided figure is a square, what is the:   1. dimension of side SW? 2. size of U? 3. Quadrilateral MEGA is a rhombus, write down the following:    1. length of ME    2. the size of E and M and provide reasons in each case.   M  A  F  3,5cmcmm  1190 0  E      G   1. How can you show that ME//AG? Demonstrate 2. A square is a rhombus. Is this statement true? |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK (Suggested time: 5 minutes)** |
| 1. **Emphasise the following**:  * A square is a quadrilateral with the following properties * All sides equal in length * Opposite sides are parallel * Opposite angles are equal and 900 * A rhombus is a quadrilateral with the following properties * All the sides are equal in length and * The opposite sides are parallel * Opposite angles are equal is size, but not necessarily 900 * A square is a rhombus, but a rhombus is not a square. |
| 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:**  Sasol Inzalo Page 126, No.4 and 7 Referring from page 123 to 125 (refer to the homework below) |

**Homework**

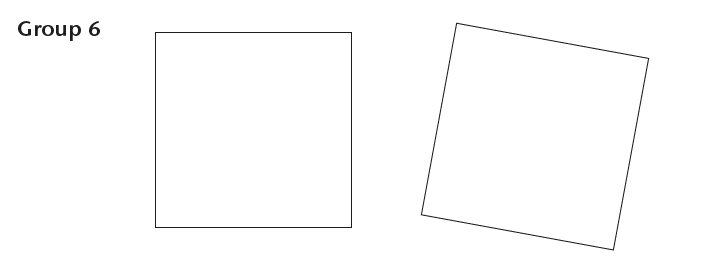
1. The figures in group 3 are called **rhombi**.
2. What do you observe about the sides of rhombi?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What else do you observe about the rhombi?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The figures in group 6 are called **squares**.

(a) What do you observe about the sides of squares?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(b) What do you observe about the angles of squares?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_