**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: CONSTRUCTION OF GEOMETRIC FIGURES:** Measuring angles   **(Lesson 1)** |

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| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson, learners should be able to** accurately use a protractor to measure and classify angles including: < 90 (acute angles); Right angles; > 90 (obtuse angles); Straight angles; and > 180 (reflex angles) |

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| 1. **RESOURCES:** | DBE workbook 1, Sasol-Inzalo book 1, Mathematical instruments |
| 1. **PRIOR KNOWLEDGE:** | * line segments * using a ruler and pencil to draw line segments * transformations |
| 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)   Let the learners:   * **turn** pages of their books. * identify other things in the class that they can **turn**. For example, the door if it is opened or closed. * give the word used in **transformation geometry** for a **turn**. (From Grade 6 they should know that a turn is a rotation.   **NB** The purpose of the activity is to draw attention of learners to the fact that we have **linear** and **rotational** motions. | |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  (Learners are expected to :) |
| **Activity 1**  The teacher together with the learners should:   * Draw line segment AP * Rotate the ruler about the point A and draw AP'. The rotation may be clockwise or anticlockwise. * Draw a curved arrow that indicates the direction of rotation   You diagram should look like the one below.    **Discussion**  **Defining an angle**  An angle is the measurement of an amount of turn or rotation.  [The angle may later be defined as a measure of the difference of the bearings of two rays with a common starting point.]  [Refer to page 87 of Sasol-Inzalo Book]  **Parts of an angle**   * Line segments AP' and AP are called the **arms** of the angle. * Point A is called a **vertex**.   **Naming an angle**  Arms are used to name an angle. A vertex, where appropriate, may also be used to name an angle. The angle drawn above is called “angle P'AP or PAP'”. The angle may also be referred to as “angle A”.   1. Angle PAP'is generally written as or . 2. Angle A is simply written as or . | * Learners draw in their exercise books * The teacher leads the entire class discussion |
| **Activity 2**   * Draw:  1. and   **Discussion**   * How do your angles compare? * How do they compare to those of your friend?   **Measuring angles**  We use a **protractor** to measure the size of an angle. The unit used at this level to measure angles is a **degree**.   * Refer learners to Activity 20, page 44 of the DBE workbook. * Take learners through No.1, a – d * Also refer learners to pages 92 – 94 of the Sasol-Inzalo Book. | * Learners draw the two angles in their exercise books |
| 1. **CLASSWORK** (Suggested time: 15 minutes) | |
| **Classwork**   1. Write down the measurement of each of the angles below.   Isiphumo somfanekiso we-Image showing measuring an angle using a protractor | |
| Isiphumo somfanekiso we-Image showing measuring an angle using a protractor  Isiphumo somfanekiso we-Image showing measuring an angle using a protractor   1. Do No.1 and 2 on pages 94 and 95 of the Sasol-Inzalo book. | |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK (Suggested time: 5 minutes)** | |
| 1. Emphasis that:  * The size of an angle has nothing to do with the length of the arms * Angles may be measured in the clockwise or anticlockwise direction  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 books, workbooks and/or textbooks for learners’ homework. The selected activities should address different cognitive levels. | |
| **Recommended Homework**:   1. Do No. 3 on page 45 of the DBE workbook. 2. Arrange the angles from the biggest to the smallest. Just write the letters (a) to (f) only in the correct order. | |