**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:** Constructions **(Lesson 7)** |

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| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson, learners should be able to** accurately construct geometric figures appropriately using compass, ruler and protractor, including: circles. |

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| 1. **RESOURCES:** | DBE workbook 1, Sasol-Inzalo book 1, Mathematical instruments. |
| 1. **PRIOR KNOWLEDGE:** | * Centre of a circle * Radius of a circle * Using a pair of compasses to draw a circle |
| 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)   Activity   * Draw a circle like the one below on the chalkboard. FJ and RS are diameters that intersect at point A   F  J  R  S  A   * Ask learners the questions below.  1. What do we call point A? 2. What do we call line segment AJ? 3. How do we describe AJ?   Learners are expected to know that A is the centre and AJ is a radius. They should know that a radius is the line segment that joins the centre to a point on the curved line of a circle. | |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  (Learners are expected to :) |
| **Constructing a circle**  Activity  Construct circle with centre P and a radius of 2 cm  Take learners through the steps below  **Step 1:**   * Place the pointed tip on the zero line of your ruler. Carefully widen the angle between the arms. Move the pencil tip until it is exactly at 2 cm as shown below.       Make sure that the pointed tip is still on zero. Be careful not to change the gap once it is set to 2 cm.  **Step 2:**   * Mark a point A in the middle of a blank sheet of gently push the pointed tip into point A. Push just deep enough into the paper to keep it in place. This will be the centre of your circle.   **Step 3:**   * Hold the handle between the forefinger and thumb of your writing hand. Keep your other hand out of the way. Use only one hand when you draw a circle with a compass.   **Step 4:** | * Learners do the construction in their exercise books |
| * Twist the handle between your thumb and forefinger. If you are right-handed it is easiest to twist the compass clockwise. If you are left-handed, turn anticlockwise. Let the pencil tip *drag* over the paper. Don’t push down too hard on the pencil. Rather, push down lightly on the pointed arm as you draw. The pencil tip must move smoothly and easily.     Also refer learners to pages 62 – 63 of the DBE workbook for the steps on constructing a circle. |  |
| 1. **CLASSWORK** (Suggested time: 15 minutes) | |
| 1. Draw a line in your exercise book. The line should be between 3 and 6 cm long. Draw it in the middle of your page. 2. Label the ends A and B. 3. Place the point of your compass at point A. carefully set the radius of your compass to the distance between A and B. 4. Draw a circle with the compass point at A. 5. Draw another circle with the compass point at B without changing the radius width. 6. The circles cross at two points. Choose one of these points. Label it C. Check that you are on the right track by comparing your sketch to the one below. | |

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| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK (Suggested time: 5 minutes)** |
| 1. **Emphasis that**  * Constructions should be accurate  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**:  DBE workbook, page 63, No. 4. |