**MATHEMATICS LESSON PLAN**

**GRADE 7**

**TERM 4: October – December**

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

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| 1. **TOPIC: INTERPRET ANALYSE AND REPORT DATA** (**Lesson 7**) 2. **CONCEPTS & SKILLS TO BE ACHIEVED** |

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| **By the end of the lesson learners should know and be able to :**   * Critically analyse data by answering questions related to: * data categories, including data intervals * data sources and contexts * central tendencies (mean, mode,median) * scales used on graphs |

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| 1. **RESOURCES:** | DBE workbook, Sasol-Inzalo workbook, textbook |
| 1. **PRIOR KNOWLEDGE:** | Group data into intervals  • Summarize and distinguish between ungrouped numerical data  by determining:  -- mean  -- median  -- mode  • Identify the largest and smallest scores in a data set and  determine the difference between them in order to determine the  spread of the data (range). |
| 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)   Learners should be encouraged to have some sort of system when collecting data and organising data. The following example could be used to emphasise how the organisation of data is important, in order to make interpretation and analysis of results easier.  **Example**  A survey was conducted to find out which pupils used the school tuck shop.  They were asked which school year they were in. Here are the results:    Mean, Mode, Median and Range  Definitions  **Mean:** A type of average. The arithmetic mean is obtained by adding two or more values together and  dividing the total by the number of values  **Mode:** the value which occurs most often (frequently) in a set of data  **Median:** The middle value when a set of values are placed in order from smallest to largest  **Range:** The difference between the smallest and largest values in a set of numerical data  General Information  The term ‘average’ is commonly used in the media, but in fact, there are three types of average: ***Mean****,* ***Mode*** *and* ***Median.***  Usually the ‘average’ that is referred to on a day-to-day basis is actually the ***mean*.**  All three types of average can be calculated from a given set of numerical values, which may be whole or decimal numbers. | | |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  **(Learners are expected to :)** |
| Activity  Use the data provided below to critically analyse by answering questions related to  Lap times (in seconds) for 10 motor racing drivers:     * data categories, including data intervals * data sources and contexts * central tendencies (mean, mode,median) * scales used on graphs | * answer probing questions presented by the teacher. * ask questions for better understanding if necessary. * copy down the examples onto their exercise books. |

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| 1. **CLASSWORK** (Suggested time: 20 minutes) |
| 1) A group of Grade 7 learners investigate the number of brownies sold at the tuckshop over  a period of 15 consecutive days. The results are as follows:    24 22 18 26 29 31 32 20 19 22 31 27 26 25 22  a) Draw a stem and leaf diagram to organise the data.  b) Using your diagram to help you, determine the:  i) Range ii) Median  iii) Mean iv) Mode  c) Using these statistics, describe the brownie sales.  2) The table shows the body weights (in kg) of athletes competing in a tournament.    a) Group the weights into 5 kg intervals. List the intervals.  b) Use a table to show the frequency of each class interval. It is useful to fill in the tallies  first and then count up the frequencies, so that you don’t leave any data items out.    3) Below is a stem-and-leaf plot showing the mass of 6-week-old chickens on a farm.  (Key: 35| 4 means 354 g)       1. What is the mass of the lightest 6-week-old chicken on the farm? 2. What is the mass of the heaviest 6-week-old chicken on the farm?   c) What is the median mass of the 6-week-old chickens on the farm? |

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| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) |
| Summary |
| **Homework**  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.  Select activities from Sasol-Inzalo book 2 on page 217, No 5 |