**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: REPORT DATA** (**Lesson 8**) 2. **CONCEPTS & SKILLS TO BE ACHIEVED** |
| **By the end of the lesson learners should know and be able to:**   * Summarise data in short paragraphs that include   -Drawing about the data  -Make predictions based on the data  -Identify sources of error and bias in the data  -Choosing appropriate summary statistics for the data (mean, median, mode and range) |

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| 1. **RESOURCES:** | Sasol-Inzalo book 2 , DBE work book 2, textbook |
| 1. **PRIOR KNOWLEDGE:** | * 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. | |

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| 1. **INTRODUCTION** (suggested time: 5 minutes)   **Bias and error in data**  **Activity 1**   1. Consider the graph below. In what way is this graph biased?      1. How many ways can data be regarded to be biased? Identify/mention 5 ways key words: scale, steepness, and heading, presentation of information and source of data. | |
| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 25 minutes) | |
| **Teaching activities** | **Learning activities**  **(Learners are expected to :)** |
| Look at the bar graph below and answer the following questions:    a) Which burger is the clear favourite (most popular)?  b) The height of the bars indicate that burger A is liked by five times as many people  as burger B. Is this true? Look at the vertical scale. | Learners must ask question about any graph/ charts they don’t understand |

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| 1. **CLASSWORK** (Suggested time: 15 minutes)   The manager of a small business is asked what monthly salaries his employees get.  His **answer:** *The* ***mean*** *of the* ***salaries*** *is* ***R13 731.***  a) Do you think the manager’s answer is a good description of the salaries?  b) In order to have some sense of the salaries paid at the firm, which one of the following would you  prefer to know: the *median,* or the *mode,* or the *range,* or the *lowest and highest* salaries?  The actual monthly salaries of the 13 staff members in the small business mentioned in  question 1 are given below.    In what ways may you be misinformed if you do not know the above figures, but only know  that the mean salary is R13 731? |

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| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) |
| **Sources of error and bias in data:**  Sometimes the ways in which data is presented could be intentionally or unintentionally **biased**  or misleading. As you work through the following activities, think carefully about:  • data that is not necessarily shown by the graph  • when, how and where the data was collected  • which scales are used on the graphs  • which summary statistics (mean, median and mode) are used to summarise the data.  **Bias** means that a person prefers a certain idea and possibly does not give equal chance to a different idea.   1. **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 Books, DBE workbooks and/or textbooks for learners’ homework. The selected activities should address different cognitive levels.  **Homework**  Sasol Inzalo Book 2 page 235 -236 , No 1 - 4. |