**MATHEMATICS LESSON PLAN**

**GRADE 7**

**TERM 2: April – June**

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

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| 1. **TOPIC: SURFACE AREA AND VOLUME OF 3D OBJECTS:** Surface area and volume **(Lesson 4)** |

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| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson learners should know and be able to** describe the interrelationship between surface area and volume of rectangular prism |

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| 1. **RESOURCES:** | Sasol-Inzalo Book 1, DBE workbook 1, textbook. |
| 1. **PRIOR KNOWLEDGE:** | * Volume and capacity of a cube and * Volume and capacity rectangular prisms done in the previous lessons. |
| 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)  |  |  |  |  | | --- | --- | --- | --- | | **Name** | **Object** | **Volume** | **Surface Area** | | Rectangular Prism |  |  | 2 cm |   Revise with learners the following work done in lesson 1 by asking them to:  Determine the surface area and the volume of the following 3D shapes in the table. | |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  (Learners are expected to: ) |
| **Activity 1**: Consider the 3D shapes below.  (i) (ii)         1. Calculate the volume of each of the rectangular prism? 2. Calculate the surface area of each of the rectangular prism? 3. Compare the two rectangular prisms in terms of volume and surface area? | Actively engaged during lesson presentation by answering questions. |
| Expected solutions  (i) (ii) |  |
| (i)      (ii)       1. If the volume of different rectangular prisms are the same, then   the rectangular prism that has the greatest one dimension of all  other dimensions has the greatest surface area.   |  |  |  | | --- | --- | --- | | Size of Rectangular | Volume | Surface Area | | xx |  |  | | xx |  |  | | xx | 16 | 48 | |  |  |  |     Note: xx has a one side with the greatest dimension |  |

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| 1. **CLASSWORK** (Suggested time: 15 minutes) 2. Calculate the volume of each of the rectangular prism with the following dimensions:     b) Arrange the rectangular prisms from the one with smallest surface area  to the one with biggest surface area . |

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| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK (Suggested time: 5 minutes)** |
| 1. **Emphasise that**:   Rectangular prisms with the same volume and different dimensions have different surface area.   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 Book1, DBE workbook 1 and/or textbooks for learners’ homework. The selected activities should address different cognitive levels. |