**MATHEMATICS LESSON PLAN**

**GRADE 7**

**TERM 3 : July-September**

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

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| 1. **TOPIC: TRANSFORMATION GEOMETRY**  **(Lesson 6)** |

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| 1. **CONCEPTS & SKILLS TO BE ACHIEVED: Reflection and translations; Reflections and rotations**   **By the end of the lesson, learners should be able to :**   * Recognize, describe and perform translations, rotations and reflections with geometric figures and shapes on squared paper. |

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| 1. **RESOURCES:** | DBE workbook 1, Sasol-Inzalo book 1, Textbooks |
| 1. **PRIOR KNOWLEDGE:** | * Using the squared paper for translation (slide). * Compare the shape and size of geometric figures. * Understanding keywords including original, slide image, slide arrow and slide line. |
| 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: 10 Minutes)   The focus of the lesson is on the investigation of different transformations from the origin resulting in the same image. The following combinations will be explored:   * Reflection and translation * Reflection and rotation |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Activity 1**   * 1. Reflect the triangle about line .   2. Reflect the image about line .   3. Turn the original about centre O 1800clockwise.   4. Compare the final image after **two reflections** to the **rotational image** of   1800clockwise.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  | M |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   NOTE: The two reflections above give the same image as the rotation of the original triangle.  **Activity 2**  2.1 Name the original triangle below ABC.  2.2 Reflect the triangle ABC about the line P.  2.3 Reflect the image of triangle ABC about the line Q.  2.4 Slide the original image according to the given slide arrow.  2.5 Now compare the final image after two reflections to the slide image. | * Compare images from different translations. * Discuss in groups the movement of the object. |
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| 1. **CLASSWORK ( Suggested time : 15 minutes )** 2. Draw a hexagon of your own size using the given square grid.    1. Compare rotation and reflection that will give the same image.    2. Compare translation and reflection that will give the same image |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK (Suggested time: 5 minutes)** |
| 1. Emphasis that:  * Different transformations can give the same image. * Reflection and translation of the same figure can result in the same image. * Reflection and rotation of the same figure can result in the same image.  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. Choose few examples from Sasol Inzalo workbook to give a homework.   **Recommended Homework**:   1. Use the trapezium to compare two reflections and one slide that will give the same image after transformation. |