LESSON PLAN					
Learning Area: Mathematics **Les:** Module 4: Quadrilaterals, Perspective drawing, Transformations	**Grade:** 9	**Integration:**	**Content:**		
Duration:			**Date/Week:**		
Learning Activities:	**Learning outcome:**	**Assessment Standards:**	**Teaching methods and Lesson Progression:**	**Resources:**	**Assessment:**
LEARNING UNIT 1 - ASSESSMENT					
Identify quadrilateral types	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.4 draws and/or constructs geometric figures and makes models of solids in order to investigate and compare their properties and model situations in the environment.			
Tabulate characteristics of quadrilaterals	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.4 draws and/or constructs geometric figures and makes models of solids in order to investigate and compare their properties and model situations in the environment.			

Learning Activities:	Learning outcome:	Assessment Standards:	Teaching methods and Lesson Progression:	Resources:	Assessment:
Contrast quadrilaterals	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.4 draws and/or constructs geometric figures and makes models of solids in order to investigate and compare their properties and model situations in the environment.			
Calculate areas of quadrilaterals	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.3 uses geometry of straight lines and triangles to solve problems and to justify relationships in geometric figures.			
Calculate areas of quadrilaterals	**LO 4** **MEASUREMENT** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.	4.4 uses the theorem of Pythagoras to solve problems involving missing lengths in known geometric figures and solids.			
Apply properties of quadrilaterals in problems	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.3 uses geometry of straight lines and triangles to solve problems and to justify relationships in geometric figures.			

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Apply properties of quadrilaterals in problems	**LO 4** **MEASUREMENT** The learner will be able to use appropriate measuring units, instruments and formulae in a variety of contexts.	4.4 uses the theorem of Pythagoras to solve problems involving missing lengths in known geometric figures and solids.			
LEARNING UNIT 2 - ASSESSMENT					
Describe orthographic projection drawings	**LO 1** **NUMBERS, OPERATIONS AND RELATIONSHIPS** The learner will be able to recognise, describe and represent numbers and their relationships, and to count, estimate, calculate and check with competence and confidence in solving problems.	1.3 solves problems in context including contexts that may be used to build awareness of other learning areas, as well as human rights, social, economic and environmental issues such as: 1.3.2 measurements in Natural Sciences and Technology contexts.			
Make an orthographic projection drawing	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.4 draws and/or constructs geometric figures and makes models of solids in order to investigate and compare their properties and model situations in the environment.			

Learning Activities:	Learning outcome:	Assessment Standards:	Teaching methods and Lesson Progression:	Resources:	Assessment:
Understand isometric projections	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.4 draws and/or constructs geometric figures and makes models of solids in order to investigate and compare their properties and model situations in the environment.			
Make an isometric projection	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.4 draws and/or constructs geometric figures and makes models of solids in order to investigate and compare their properties and model situations in the environment.			
Understand the use of perspective drawing	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.6 recognises and describes geometric solids in terms of perspective, including simple perspective drawing.			

Learning Activities:	Learning outcome:	Assessment Standards:	Teaching methods and Lesson Progression:	Resources:	Assessment:
LEARNING UNIT 3 - ASSESSMENT					
Transform figures through translation	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.2 in contexts that include those that may be used to build awareness of social, cultural and environmental issues, describes the interrelationships of the properties of geometric figures and solids with justification, including: 3.2.2 transformations; 3.7 uses various representational systems to describe position and movement between positions, including: 3.7.1 ordered grids.			
Transform figures by reflection	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.2 in contexts that include those that may be used to build awareness of social, cultural and environmental issues, describes the interrelationships of the properties of geometric figures and solids with justification, including: 3.2.2 transformations. 3.7 uses various representational systems to describe position and movement between positions, including: 3.7.1 ordered grids.			

Learning Activities:	Learning outcome:	Assessment Standards:	Teaching methods and Lesson Progression:	Resources:	Assessment:
Transform figures by rotation	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.2 in contexts that include those that may be used to build awareness of social, cultural and environmental issues, describes the interrelationships of the properties of geometric figures and solids with justification, including: 3.2.2 transformations; 3.7 uses various representational systems to describe position and movement between positions, including: 3.7.1 ordered grids.			
Use appropriate descriptive notation	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.2 in contexts that include those that may be used to build awareness of social, cultural and environmental issues, describes the interrelationships of the properties of geometric figures and solids with justification, including: 3.2.2 transformations; 3.7 uses various representational systems to describe position and movement between positions, including: 3.7.1 ordered grids.			

Learning Activities:	Learning outcome:	Assessment Standards:	Teaching methods and Lesson Progression:	Resources:	Assessment:
Use transformations in tessellations	**LO 3** **SPACE AND SHAPE (GEOMETRY)** The learner will be able to describe and represent characteristics and relationships between two-dimensional shapes and three–dimensional objects in a variety of orientations and positions.	3.2 in contexts that include those that may be used to build awareness of social, cultural and environmental issues, describes the interrelationships of the properties of geometric figures and solids with justification, including: 3.2.2 transformations; 3.7 uses various representational systems to describe position and movement between positions, including: 3.7.1 ordered grids.			
Teacher reflection:					