



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

MATHEMATICS LESSON PLAN

GRADE 9

TERM 2: April – June

PROVINCE:	
DISTRICT:	
SCHOOL:	
TEACHER'S NAME:	
DATE:	
DURATION:	1 Hour

1. TOPIC: CONSTRUCTION OF GEOMETRIC FIGURES: Constructions (Lesson 2)

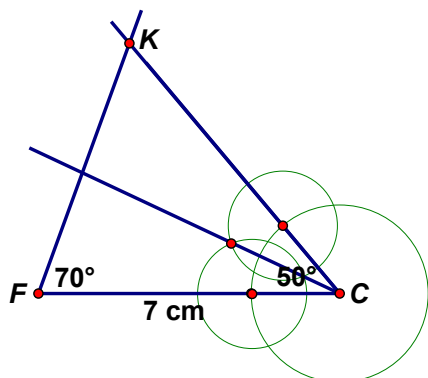
2. CONCEPTS & SKILLS TO BE ACHIEVED:

By the end of the lesson learners should know and be able to accurately construct geometric figures appropriately using a compass, ruler and protractor to bisect angles of a triangle.

3. RESOURCES:	DBE workbook 1, Sasol-Inzalo Book 1, textbook, ruler, pair of compasses, pencil, eraser.
4. PRIOR KNOWLEDGE:	angles
5. REVIEW AND CORRECTION OF HOMEWORK (suggested time: 10 minutes)	
<p>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.</p>	
6. INTRODUCTION (Suggested time: 10 Minutes)	
<p>Baseline Assessment. Ask learners to:</p> <ul style="list-style-type: none"> • construct line segment $BP = 7,2 \text{ cm}$ • construct $\widehat{ZBP} = 120^\circ$ at point B • bisect line segment BP using a pair of compass 	
7. LESSON PRESENTATION/DEVELOPMENT (Suggested time: 20 minutes)	
Teaching activities	Learning activities (Learners are expected to:)
<p>Through guided instruction, do the following activity with learners:</p> <p>Activity Construct triangle KFC with $FC = 7 \text{ cm}$, $\widehat{KFC} = 70^\circ$ and $\widehat{KCF} = 50^\circ$. Bisect \widehat{KCF}.</p> <p>Take learners through the following steps:</p> <ul style="list-style-type: none"> • Draw a rough sketch of the figure. • Construct line segment $FC = 7 \text{ cm}$. • At F, construct an angle of 70°. • At C, construct an angle of 50°. • Label the intersection of the angle arms K. • With C as the centre, construct a circle / arc that intersect the line segments FC and KC. • Using the points of intersection of the circle and the sides, draw two intersecting circles of equal radiuses. • Draw a line segment passing through the point of intersection of the last two circles and C. This line segment bisects \widehat{KCF}. 	<ul style="list-style-type: none"> • do the activity according to instructions



Note: if instructions have been correctly carried out, the learners' final figures should look as follows:



8. CLASSWORK (Suggested time: 15 minutes)

Activity

1. Construct $\triangle FNL$ with $FN = NL = FL = 6 \text{ cm}$ and bisect \widehat{FNL} .
2. Construct $\triangle PTR$ with $RT = PR = 6 \text{ cm}$ and $PT = 7 \text{ cm}$. Bisect \widehat{PTR} .

9. CONSOLIDATION/CONCLUSION & HOMEWORK (Suggested time: 5 minutes)

a) Emphasise that:

- Learners should be able to construct triangles.
- They should also be able to bisect any given angle.

Notes for the teacher:

- Allow enough time for drawing rough sketches during each activity.
- Also allow learners to make suggestions on how each figure should be constructed.

- b) 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 1, no. 1 - 2, page 184.

