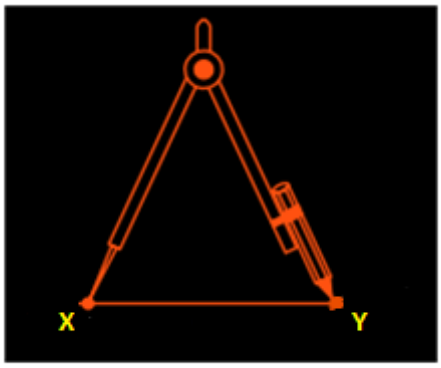
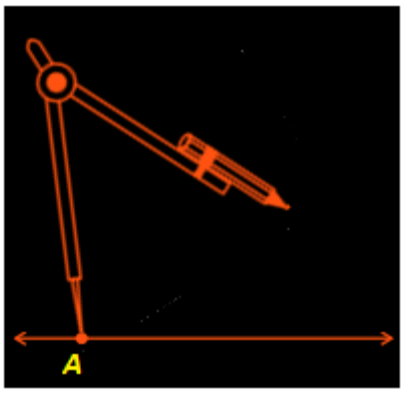
or 0248043888
https://www.TeachersAvenue.net
https://TrendingGhana.net
https://www.mcgregorinriis.com

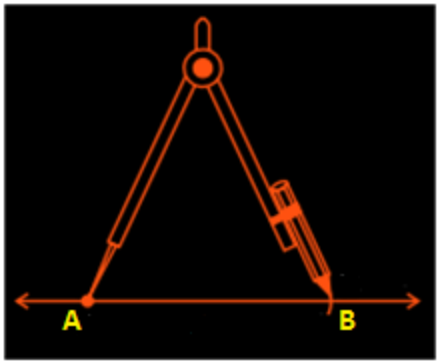
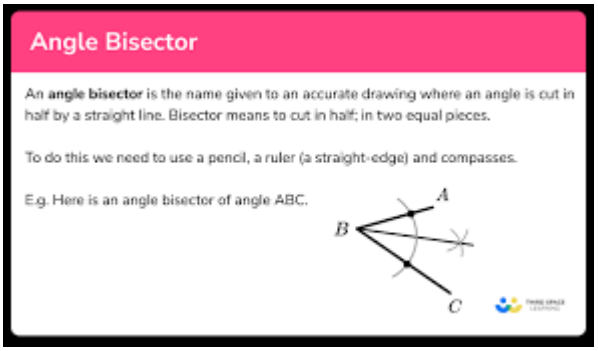
BASIC 7

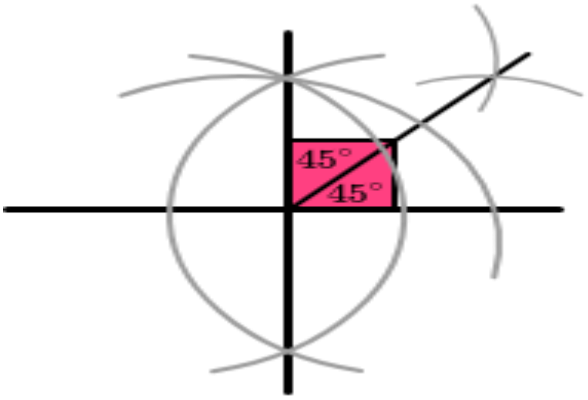
WEEKLY LESSON PLAN – WEEK 7

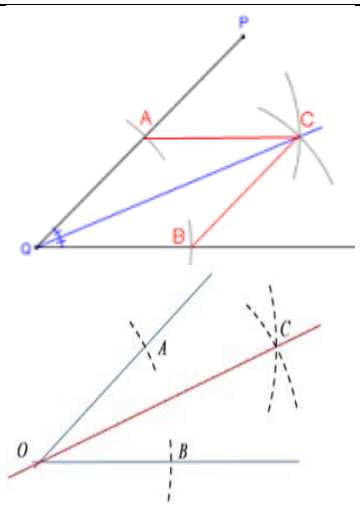
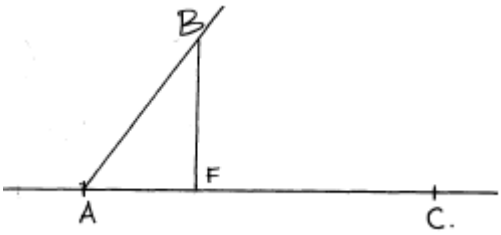
Strand:	Geometry and Measurement		**Sub-Strand:**	Shape and Space	
Content Standard:	B7.3.1.2 Demonstrate how to construct a perpendicular to a line from a given point, bisect a line, bisect angles, and construct angles of the following sizes: 30˚, 45˚, 60˚, 75˚ and 90˚				
Indicator (s)	B7.3.1.2.1 Construct a line segment perpendicular to another line segment. B7.3.1.2.2: Construct the perpendicular bisector of a line segment B7.3.1.2.3: Copy an and bisect angles		**Performance Indicator:** Learners can draw line segments using only pair of compass and a ruler.		
Week Ending	19-05-2023				
Class	B.S.7	**Class Size:**		**Duration:**	
Subject	Mathematics				
Reference	Mathematics Curriculum, Teachers Resource Pack, Learners Resource Pack, Textbook				
Teaching / Learning Resources	Chart, Metre Rule, Compass, divider, Poster, Pictures		**Core Competencies:**	• Ability to combine Information and ideas from several sources to reach a conclusion • Implement strategies with accuracy • Preparedness to recognize and explain results after implementation of plans	

DAY/DATE	**PHASE 1 : STARTER**	**PHASE 2: MAIN**	**PHASE 3: REFLECTION**
MONDAY **15-05-2023**	Demonstrate on how to construct a line segment using a pair of compass and a ruler.	1. Assist Learners to practice drawing line segments using a pair of compass and a ruler. 2. Assist Learners to use a pair of compasses and ruler to construct a perpendicularat a point on a line segment and drop a perpendicular from a given point outside a line segment. 3. Learners to practice bisecting a line segment. **Drawing a Line segment** **Step 1:** Let be a line segment of unknown length.	Individual Learners practice drawing line segments with different measurement. **Exercise;** Using a pair of compass and a ruler, draw line segments with the following measurements; 1. /AB/ = 5cm 2. /PQ/ = 10cm 3. /AB/ = 20 cm 4. /RS/ = 10 cm

		 **Step 2:** Fix the compass' pointer on the point X and pencil pointer on Y gives you the length of XY.  **Step 3:** Now draw a straight line using a ruler, let's say line *m.*  **Step 4:** Mark a point A and fix the compass pointer (step 2)on A without changing the settings.  **Step 5:** Fixing compass on A draw an arc on, name the point at which pencil pointer cuts as B.	5. /MN/ = 15 cm.

			
TUESDAY **16-05-2023**	Review Learners knowledge on the previous lesson by asking Learners to draw Line segments with different measurements.	1. Demonstrate how to draw arcs to construct angle bisectors. 2. Guide Learners to construct angle bisectors using rulers and compasses without protractors. 3. Learners brainstorm to copy angle bisectors using rulers and compasses.  **Constructing an Angle Bisector** 1. Draw an angle on your paper. Make sure one side is horizontal. 2. Place the pointer on the vertex. Draw an arc that intersects both sides. 3. Move the pointer to the arc intersection with the horizontal side. ... 4. Connect the arc intersections from #3 with the vertex of the angle. **Constructing a 30,60,45,90 degree angle** constructing these angles accurately without using a protractor. To do this we need to use a pencil, a ruler (a straight-edge) and compasses.	Reflect on the steps to follow to construct angle bisectors. **Exercise;** 1. In ΔABC, AD is the bisector of ∠A meeting side BC at D, if AB = 10 cm, AC = 14 cm and BC = 6 cm, find BD and DC 2. Construct an angle of 90◦ using ruler and compasses and bisect it.

		E.g. A 60 degree angle can be constructed by drawing an equilateral triangle. Then an angle bisector will construct a 30 degree angle. E.g. A 90 degree angle can be constructed with a perpendicular bisector. Then an angle bisector will construct a 45 degree angle.  	
THURSDAY **18-05-2023**	Through questions and answers, review Learner's knowledge on how to construct 90°.	1. Perform geometric construction to bisect a given angle to obtain two equal parts. 2. Learners are to be guided to sketch acute angles and label it. 3. Assist Learners to copy angles, measure and record its value. 4. Assist Learners to use Protractor to verify angles constructed. 5. Learners in groups to practice constructing an angle of 45˚ by bisecting the 90˚ angle constructed. Angle bisector in geometry refers to a line that splits an angle into two equal angles. Bisector means the thing that bisects a shape or an object into two equal parts. If we draw a ray that bisects an angle into two equal parts of the same measure, then it is called an angle bisector.	Through questions and answers, conclude the lesson. **Exercise;** 1. Using a ruler and a pair of compasses only, a. Construct a triangle ABC in which AB = 9cm, AC = 6cm and angle BAC = 37½° b. Drop a perpendicular from C to meet AB at D. Measure CD

		 **Example;** a. Using a ruler and a pair of compass only, construct a triangle ABC in which angle ABC =37.5°, BC =7cm and BA = 14cm b. Drop a perpendicular from A to BC produced and measure its height c. Use your height in (b) to find the area of the triangle ABC d. Use construction to find the radius of an inscribed circle of triangle ABC 	and hence find the area of the triangle ABC c. Point E divides BC in the ratio 2:3. Using a ruler and Set Square only, determine point E. Measure AE. 2. Using a ruler and a pair of compasses only, draw a parallelogram ABCD in which AB = 6cm, BC = 4cm and angle BAD = 60°. By construction, determine the perpendicular distance between the lines AB and CD. 3. Without using a protractor, draw a triangle ABC where <CAB = 30°, AC = 3.5cm and AB = 6cm. measure BC.

Name of Teacher: ***School:*** ***District:***