SAMPLE LESSON: MATHEMATICS

Class: Form 2

Title of Module: Elementary Statistics and Probability	**Title of Chapter:** Probability
Title of Lesson: Probability Scale	**Duration of Lesson:** *55 minutes*

SCHOOL: **TTP COP**;　　　　　　**TERM**:　**2ⁿᵈ** ;　　　　　　　　　**DATE** ---------------------------------

Class: Form 2;　　　　**Number on Roll**: _____;　**Girl**s: _____; **Boys**: _____

Module: Elementary Statistics and Probability

Topic: Probability

Lesson 2: Probability Scale

Duration: 60mins

Objectives:

Learners will be able to place events on the scale based on the likelihood of that event.

Pre-requisite:
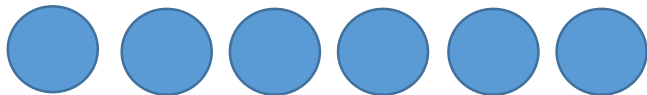
Learners can say how likely an event is to occur and classify events from impossible events to events that are certain to occur.

Preparation for the 3 lessons on probability for this class:
1. Games prepared (If you intend to use a game)
2. Gather Materials such as:

Coins of 50frs and 100frs As many as you can provide. (If your students are not to be trusted, tell them the day before that they will need coins during the next lesson. They will therefore bring)	

Dice Bring dice according to number of groups	
Buttons of different colours. Buy buttons of different colours. Make small bags and put them in before coming to class. These can be used for different activities over the years	
Cut shapes such as these	

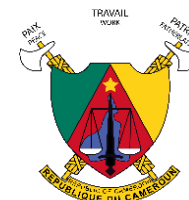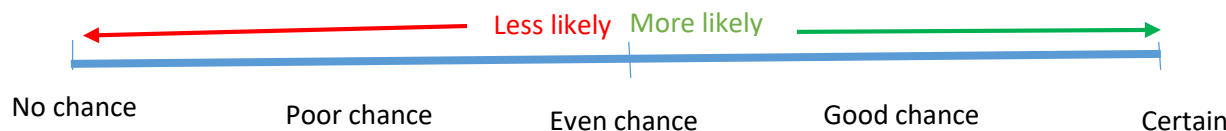| Create spinners from manilla papers and colour the sectors or number them		
Photocopy Worksheets according to intended number of groups		

3. Read through lesson plan and print out if necessary
4. Type and print out problem situation OR write out on cardboard paper (large characters) that will be pested on the wall for all to see.

References:

1. https://www.bing.com/search?q=spinner+for+games&form=EDNTHT&mkt=en-us&httpsmsn=1&refig=e7060f073dc1451dbcbaa690e12e2ec2&sp=2&qs=HS&pq=sp&sk=HS1&sc=8-2&cvid=e7060f073dc1451dbcbaa690e12e2ec2&cc=US&setlang=en-US
2. https://www.onlinemathlearning.com/probability-of-an-event.html
3. https://www.mathsisfun.com/probability_line.html
4. Modular Mathematics for GCSE, *Brain Gaulter and Leslye Buchanan,* (1994) Oxford University Press
5. Mathematics 7, Nelson Thornes (2003)
6. Ordinary Level Mathematics, Piankeh Albert, (2011), Mbosso Publishers Bamenda

Stages / Duration	Teaching / Learning Activities		Learning Points	Observations
	Teacher's Activities	**Learners' activities**		
Introduction 15 mins	*Greetings students, today we will continue with our lesson on probability* **Revision of different vocabularies** A) Let us read out each of the statements below. It is an event. Discuss with your bench mate and say the likelihood of the event using the words: Impossible event, equally likely events, Certain, Less likely, most likely, even chance etc. 1. The event of selecting a yellow ball from a bag which contains 5 red balls and 2 white balls. 2. The event of drawing a King from an ordinary pack of 52 cards. 3. The event of selecting a girl among Form 3A students made up of 35 boys and 35 girls. 4. The event of picking out an orange from a basket containing 7 oranges and 2 apples. 5. The event of choosing an even number or an odd number from the numbers 11, 12, 13, 14, 15, 16, 17, 18, 19, 20. 6. The likelihood of choosing a girl from a class made up of 30 girls is? 7. A spinner has 4 equal sectors coloured yellow, blue, green and red. The event of landing on purple colour after spinning the spinner is? 8. A die is rolled, the likelihood of rolling a number less than 7 is	Get to order for the lesson Students individually give their opinions based on their reasoning. Learners volunteer to respond or give their reflection Learners copy the learning point in their note books	**Students copy what is here in their note books** **Revision of different vocabularies** A) 1. Impossible. There is no yellow ball in the bag. 2. Is less likely. There are only 4 kings out of 52. 3. Equally likely because there are equal number of girls as boys 4. More likely because there are more oranges in the basket than apples. 5. Equally likely events because there are 5 even numbers and 5 odd numbers. 6. Certain. Whoever is chosen is a girl. 7. Impossible because there is no purple colour on the spinner. 8. Certain. All numbers on the die are less than 7, so any number chosen will be less than 7.	Pay attention to students' spoken language and correct them along Encourage learners to use vocabularies in making complete sentences

Stages / Duration	Teaching / Learning Activities		Learning Points	Observations
	Teacher's Activities	**Learners' activities**		
	B) If a die is rolled, then which of the following events is neither certain nor impossible? i) Rolling a number less than 7. ii) Rolling an even number. iii) Rolling a zero. The likelihood of these different events can be displayed on a Probability Scale	Students copy this last part of the introduction into their note books	B) i) is Certain. ii) is equally likely iii) is impossible	
Probability Scale	*The possibility (or likelihood) of an event occurring can be display on a probability scale as below:* A scale below shows the chance of things happening: The probability of an event occurring is somewhere between Impossible and Certain. Using numbers, probability can range in between 0 to 1. The probability of **Impossible** event is 0 The probability of an event that is **Certain is 1**. As fractions:			Copy this diagram of the probability scale and share with learners to put in their books.

Stages / Duration	Teaching / Learning Activities		Learning Points	Observations
	Teacher's Activities	**Learners' activities**		
	$0 \qquad \dfrac{1}{4} \qquad \dfrac{1}{2} \qquad \dfrac{3}{4} \qquad 1$ As Percentage: 0% 25% 50% 75% 100% As Decimals: 0 0.25 0.5 0.75 1			Give the students thinking time and allow them to discuss, draw and represent
Activity	Draw a probability scale and show where each of the events below will be on the scale. Use the number of the event. 1. The event of selecting a yellow ball from a bag which contains 5 red balls and 2 white balls. 2. The likelihood of choosing a girl from a class made up of 30 girls is? 3. The event of drawing a King from an ordinary pack of 52 cards. 4. The event of picking out an orange from a basket containing 7 oranges and 2 apples. 5. The event of selecting a girl among Form 3A students made up of 35 boys and 35 girls. **Scale**			Give the students thinking time and allow them to discuss,

Stages / Duration	Teaching / Learning Activities		Learning Points	Observations
	Teacher's Activities	**Learners' activities**		
	1 5 2 3 4			draw and represent
Conclusion	All events that are Certain have a probability of 1. All Impossible events have a probability of 0			