Sample Lesson Plans: (Integrating the 5E'S)

Topic: Bar Charts

Strand: Statistics

Grade Level: 2

Duration:1 Hour

Focus Question: Who are the people at my school and what do they do?

Standard: Students will collect, organize, display and interpret data to find solution and/ or make decisions in practical situations.

Attainment Targets: Students will collect sort and group data.

Bench Mark: Collect, organize, represent and present data.

Specific Objectives

By the end of the lesson, the students should be able to:

- Interpret simple bar graphs.
- Make general statements and draw conclusions based on information collected.

Prior Learning:

Students should already know:

- How to interpret pictographs.
- How to organize data based upon similarities of the items given.

Materials:

- Graphs, coloured fudge sticks,- interlocking cubes and Worksheet.

Content Outline

- **Data Collection**: is the process of gathering and measuring information.
- **Grouping**: combining several objects together, so they can be viewed as a single unit.

Engage

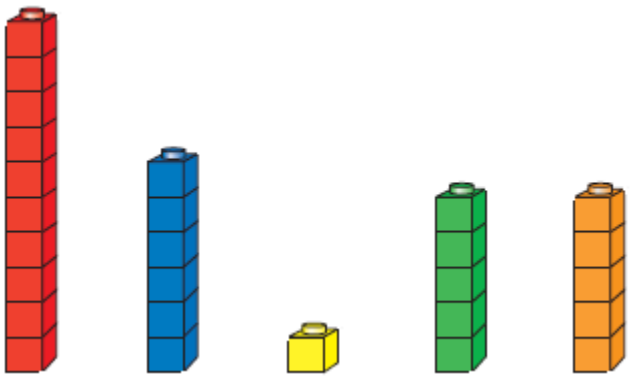
- The teacher will label areas of the classroom using the following colours; Red, yellow, green, blue and orange.

- The students will be instructed to stand in the area of the colour they like the most.
- The students will count themselves aloud.
- The teacher will explain to the students what is a tally.
- Each group will be given coloured fudge sticks to tally as a bundle.
- The students will represent the data collected on a tally chart on the white board.

- A YouTube video will be shown to the students on how to interpret bar graphs. https://www.youtube.com/watch?v=gX9mAL8ixzI

Exploration

- The teacher will ask the students to form groups of fives, then a container of interlocking cubes of varying colours will be passed around the class.
- Each group will be required to take a set of cubes assorted in various colours.
- The students will then be asked to connect the cubes to make bars of varying colours. and connect them making a bar.
- The bars which are made will be placed in an upright position on a desk at the front of the class.
- Each group will be required to represent the bars they have created on paper as bar graphs.



Explain

A student from each of the groups will be given a question to answer, which will be read aloud by the teacher. The group members are responsible for displaying the concrete graphs. The questions posed are as follows.

- What is the most popular colour represented in your group? How do you know?
- What is the least popular of the colour shown? How do you know?
- How many more students choose red than blue?
- What is the difference between the least and the most popular colour in your group?
- If one cube is counted as 2 cubes, what would be the total of the most popular colour?

Extend

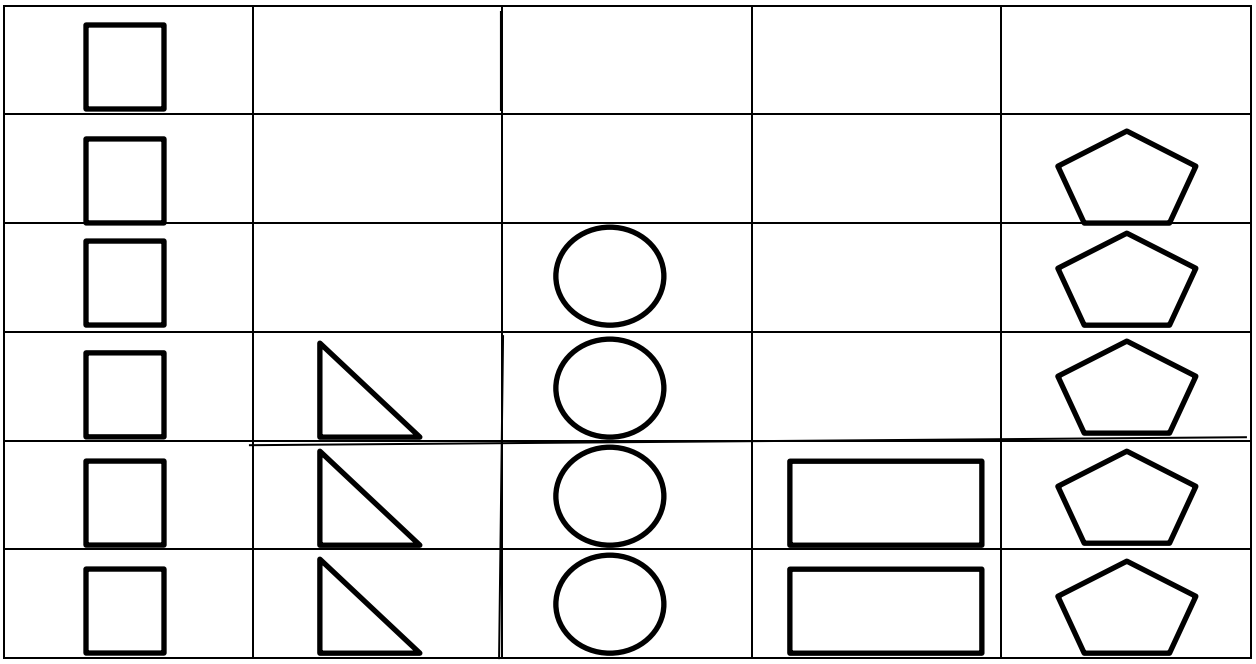
The students will be given statements to choose from a bag and will be asked to create bar graphs on the board. e.g. 15 students like red and 8 students like green, what is the difference between both colours? can you use this information to create a bar graph?

- The students will be asked to tally the following; John has 3 red balls, 4 yellow and 5 green balls.
- The students will be asked to create a bar graph using the information given.

Evaluation

The students will be given the following worksheet to complete. They will be asked to colour the shapes in the following colours; Triangles blue, pentagon yellow, square red, circle orange and rectangle green.

Worksheet



1. Which shape has the fewest members?
2. How many squares are there?
3. What is the difference between the number of rectangles and squares?
4. Which two shapes have a difference of one?
5. How many shapes are represented in the pictograph?