PICTOGRAMS

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Subject

Mathematics

Prepared By

[Instructor Name]

Grade Level

5

Overview

This lesson plan covers teaching content for;

1. Definition of pictograms.
2. Collection of data and interpreting with pictograph.

Objectives

Students should be able to;

1. Read and create pictographs.
2. Use a survey to collect data and use a tally chart to record it.
3. Organize and share information in a pictograph.
4. Use a key to understand a pictograph's symbols.
5. Explore different ways to collect information or opinions and share what they know with a pictograph!

Activity Starter/Instruction

1. A pictogram or pictograph represents the frequency of data as pictures or symbols. Each picture or symbol may represent one or more units of the data.
2. The following table shows the number of computers sold by a company for the months January to March. Construct a pictograph for the table.
3.

Month	January	February	March
Number of Computers	25	35	20

January	
February	
March	

4.  Represents 5 computers.

Teacher Guide

Day 1/ Lesson 1: 20mins

1. Create a survey together about students' favorite fruit. Come up with a question together and have students take the survey.
2. Record their answers on the board using a tally chart. You may want students to come up to the board and record their choice on the tally chart themselves.
3. Be sure to instruct them to mark every fifth tally mark across the other four. Then use the data in the tally chart to create a pictograph.
4. To challenge students, have each symbol in the graph stand for more than one vote, such as two or three.
5. Display the pictograph in the classroom. If possible, serve the fruit that gets the most votes.

Materials Required

- White Board
- Marker

Additional Resources

- https://datavizcatalogue.com/methods/pictogram.htr
- https://www.mathsisfun.com/data/pictographs.html
- https://www.tes.com/teaching-resource/pictograms-lesson-level-4-6192726
- https://www.tes.com/teaching-resource/weeks-lesso plan-on-tally-bar-and-pictographs-6452197
- https://www.khanacademy.org/math/pre-algebra/pre algebra-math-reasoning/pre-algebra-picture-bar-graphs/e/reading_pictographs_2
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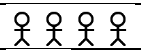
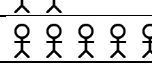
Additional Notes

Guided Practice

Day 2/ Lesson 2: 15 Mins

1. The following pictograph shows the number of students using the various types of transport to go to school.

Walking	
Bus	
Bicycle	
Car	

2.  Represents 4 students
3. How many students go to school by car?
4. If the total number of students represented in the survey is 56, how many symbols must be drawn for the students walking to school?
5. What is the percentage of students who cycle to school?
6. Solution
7. Students who go by car = 20 students.
8. 56 students should be represented by 56 ÷ 4 = 14 symbols.
   There are already 11 symbols on the table.
   So, the number of symbols to be added for 'Walking' is 14 – 11 = 3
9. Percentage of students who cycle = (8/56) × 100% = 14.29%

Guided Practice

Day 3/ Lesson 3: 20mins

1. Mrs. French and Mr. Miskey are planning a party for their classes. The students are asked to vote for their favorite ice cream flavor.
2. The list below are the results.
3. Chocolate – 8
4. Vanilla – 7
5. Chocolate chip – 13
6. Cookie Dough – 8
7. Strawberry – 5
8. Tell students to use the information to make a pictograph and answer the following questions.

9. Key:  = 2 votes
10. What two flavors did the students like the least?
11. How many students voted for either cookie, dough or strawberry?
12. How many students voted for chocolate chip than vanilla?
13. How many votes were there in all?

Summary	Assessment Activity	Assessment Activity
1. Allow volunteers to show the class how to interpret data. 2. Review with the whole class to be sure that they understand well.	1. Make sure student understand what a pictogram is and how to use a key to understand pictographs' symbol.	Assess if students can; 1. Interpret data with a pictograph correctly.