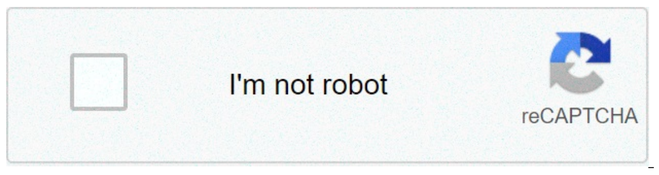

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Interpreting graphs and charts worksheets pdf

Students can: determine a suitable scale for data and recording the scale in a key draw picture or column graphs using a scale or key interpret a given picture or column graph using a scale or key Activities to support the strategyActivity 1 – surveying the classPose the following problem:What question would you ask the class if you were going to conduct a survey to find out: the favourite milkshake flavour the most popular fruit the preferred team game during sport time, etc. What if your survey included all students in the school and your numbers were large, how could you display the data for large numbers? Discuss the use of symbols e.g.10 symbols can represent 100.Draw one car on the whiteboard. One car = 10Draw three more symbols.What number would be represented now?Change the number of symbols to 4, 8, 11, etc. and students determine the matching number.Repeat, but change the key so that one symbol equals 5 (or 20) and students determine the numbers for 5 cars. Ask the class what the symbol of a car could represent. List the students' suggestions on the whiteboard.e.g. Ways of getting to school. Types of cars owned by class families The number of cars passing the school in a given time period. Students suggest other symbols that could be used to represent transport themes.Activity 2 – picture graphsDisplay a variety of tables, with larger numbers for students to discuss.For exampleThis table records the number of tourist buses visiting a town in one year. Tourist Buses Table1. Students will use the information to complete a picture graph showing the bus arrivals during the year.Before they start discuss the following points: What are some advantages of using a picture graph? What are some disadvantages of using a picture graph? Because of the large numbers, can we make the task of showing the numbers in a graph easier? Would using a symbol, to represent more than one object, make it easier to present the large numbers? What number could each symbol represent? (1 symbol could equal 5 buses, 10 buses). Have students justify their answer. If one symbol equals 10 buses, how many symbols would need to be shown for each month? Add another column to the table to show the number of symbols that have to be used. What if we need to show five buses, what symbol could be used? View/print (PDF 77.88KB)2. Students are given this template of picture graph to graph the bus arrivals during the year. They use the key because there are a large number of buses to record on the graph. Students draw half a bus for numbers like 15, 25, 35 and 45.Each symbol drawn on the graph represents 10 buses. Half a symbol represents 5 busesView/print (PDF 77.88KB)When students finish their graph, they: work in pairs and discuss some facts that can be obtained from the graph write three questions that could be answered using the information presented in the picture graph. Activity 3 – column graphsThis table records the predicted weather in each of the capital cities on one day in February.View/print (PDF 126.26KB)1. Students will use this information and the template below to complete a column graph, which will show the predicted weather in each of the cities.View/print (PDF 126.26KB)Discuss: What information is along the horizontal axis? (name of each capital city) What label could be written to match this information? (Capital city) What information is along the vertical axis? (temperature) What label could be written to match this information? (Temperature oC) What is the difference between each number on the vertical axis? (5) The markers on the vertical axis are 5 numbers apart.The temperature scale on the vertical axis is marked in 5°C intervals2. Students use the information in the table to complete the column graph by drawing the missing columns, giving the graph a title and labelling the axes. As the maximum temperature for some of the capital cities lies between the intervals on the temperature scale, students will have to measure the height of the columns carefully.Activity 4 – drawing graphsStudents will use information in a table to present a graph, of their choice. The table shows data from the 2012 Olympic Games medal tally and ranks the top 20 medal-winning countries.The 20 most successful nations at the 2012 London Olympic Games Updated April 25, 2017 By Mara Pesacreta Graphs and charts are visual representations of data in the form of points, lines, bars, and pie charts. Using graphs or charts, you can display values you measure in an experiment, sales data, or how your electrical use changes over time. Types of graphs and charts include line graphs, bar graphs, and circle charts. Different types of graphs and charts display data in different ways, and some are better suited than others for different uses. To interpret a graph or chart, read the title, look at the key, read the labels. Then study the graph to understand what it shows. Read the title of the graph or chart. The title tells what information is being displayed. For example, a graph or chart of the quantity of pants sold in June may be titled, "Number of Pants Sold in June." Look at the key, which typically is in a box next to the graph or chart. It will explain symbols and colors used in the graph or chart. In a line graph of the "Number of Pants Sold in June," a blue line might display the number of blue pants sold per day during the month, the red line the number of red pants, and the brown line the number of brown pants. Such a line chart can show not only how sales changed from day to day, but a quick glance shows the popularity of each color. Similarly, in a bar graph, the blue rectangle displays the blue pants sold that month, the red rectangle displays the red pants, and the brown rectangle displays the brown pants.You can put the bars next to each other in a monthly chart that just displays the relative sales of each color, or you can stack the three color bars on each other to display next to similar bars for other months. Then the bars not only show the change in sales over time, but also the change over time in the relative proportion of each color sold. In a circle, or pie chart, the blue portion of the circle is the proportion of total pants sold that were blue, the red is the proportion that were red, and the brown is the proportion that were brown. Read the labels of the graph or chart. The labels tell you what variables or parameters are being displayed. For example, on a line or bar graph of the "Number of Pants Sold in June," the x-axis might be the days of the month, and the y-axis might be the number of pants sold. For a circle chart, the number of each color of pants sold in the month of June will be displayed as a percentage of the circle. Fifty percent of pants sold may be brown, 40 percent blue sold, and 10 percent red. Draw conclusions based on the data. You can reach conclusions faster with graphs than you can using a data table or a written description of the data. For example, on the line graph, the brown line rose the highest, the blue line is in the middle, and the red line rose the lowest. On the bar graph, the brown bar is the highest, the blue bar is the next highest, and the red bar is the lowest. Within the circle chart, half of the circle is brown, most of the other half is blue, and a small portion of that half is red. All of these representations indicate that the brown pants sold the best, then the blue pants, and that the red pants did not sell very well. If you are learning about graphs and charts in math class, answer questions about the graphs and charts in your homework. Have a friend make up questions about the chart or graph. As you answer the questions, your friend can critique you. You can do the same for your friend. You may ask questions such as, "Based on the data, which pants were the least popular?" interpreting graphs and charts worksheets pdf