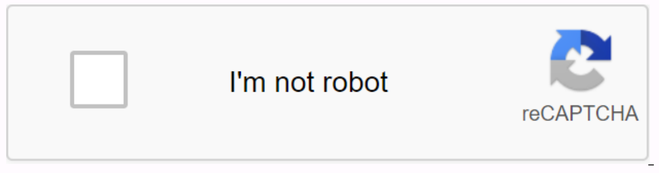

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Climate graph labeled

How to read a climogram Every place on Earth has time. However, different places on Earth have different types of typical weather. Some places are dry, some are wet, some are hot, some are cold, and some are a bit of everything! You can find out what the weather is like where you live looking out the window or going out. Weather refers to temperature, precipitation (rain and snow), and wind direction and speed. Climate-studying scientists collect information from different places on Earth and find averages, or typical types of weather, for a particular place. This average, or typical climate that occurs over a year, is called the weather. A quick way to get an idea of the climate of a particular place is to look at a climate chart or climogram. A climogram is what scientists create to show the average temperature and precipitation of a particular place during the year. Below is a climogram for Moose Factory, Canada. To help you learn how to read a climogram, the different parts of the climogram have been identified by number. Below is a description of each of the numbered parts. 1. The type of biome associated with the site. 2. The place where temperature and precipitation were measured. 3. A scale used to indicate inches of precipitation. 4. Months of the year. The letters J, F, M, etc., are January, February, March, etc. 5. The temperature scale in degrees Fahrenheit. 6. A bar chart showing the average precipitation of each month. In this example, the average total precipitation is about 1 inch in January and nearly 4 inches in August. (Note: The values in this chart are on the scale on the left.) 7. A line chart showing the monthly temperature during the year. In this example, the lowest temperature is around -5 oF in January and the highest is about 45 oF in July. (Note: The values in this chart are on the scale on the right.) Back? Next climate describes the weather conditions expected in a region at a particular time of year. To do this, meteorologists work the average temperature and rainfall of a particular place for each month of the year. This information is presented on a chart, where precipitation is represented as a bar chart and the temperature is displayed as a line chart. The temperature measured in oC is very often represented using numbers on the left side of the chart. The average monthly temperature is plotted on the chart with a red dot and the dots are joined in a soft red line. Precipitation measured in mm is represented using the numbers on the right side of the graph. The average monthly precipitation is plotted on the chart with a bar or Blue. On a climate chart these two graphs are represented on the same set of axes, with temperature on the left and rain on the right, with months of the year the base. The following two short videos clearly explain the main features of a climate chart and how to interpret such a graph. Now take a look at Timbuktu's climate in Mali, which is available in the resources section. The different parts of the climate chart have been identified by numbers. Below is a brief description of each of the numbered parts. 1. This shows where the weather data were measured (temperature and precipitation). 2. Letters indicate the months of the year. The letters J, F, M, etc. are January, February, March, etc. 3. The temperature scale in degrees Celsius. 4. The precipitation scale in millimeters. 5. The average temperature of each month is shown by a graph of lines colored in red. On the chart the lowest temperature is about 21oC in January and the highest is about 35oC in May. 6. The average precipitation for each month is shown by a column or bar chart colored blue. In this example, the average rainfall is about 65 mm in August. Watch this short video clip by clearly explaining how to draw a climate chart. Use the video guide to draw your own climate chart for Tokyo. The climate and network data required for this exercise is titled Tokyo Climate Data available in the resources section. Remember: • Plan your scale carefully before starting by looking at the highest and lowest temperature and precipitation numbers to create your shaft. • Use a ruler and sharp pencil to draw the axes and make sure they are clearly labeled (include units). • Plot precipitation as bar charts. Fill in the columns in blue. • Plot the temperature using dots. Place each point in the middle of the month. Use a red color to join the dots. Use the World Climate website to find data about the city of your choice. Plot precipitation bars and temperature points to create a climate chart. Temperature and precipitation data from thousands of locations can be found at: Click here Click here When choosing your weather data Be careful to select average monthly temperature and precipitation. You can use the blank grid provided in the resources section. How to describe a climate chart • Identify seasons. There may be a hot season and a cold season; a wet season and a dry season. Identify when they are. • Cite the highest and lowest temperature and precipitation and the month in which it occurs. Remember to cite units, for example, Celsius and millimeters. • Make the temperature range by subtracting the lowest figure from the highest. • Add precipitation totals for each month together to total annual rainfall. Make a change to describe the climate charts for Kano in Nigeria and for the Sahara Desert., both available in the resources section. You can now complete the worksheet titled Interpret Climate Charts also in the resources section. Image One - Climate Chart for Geneva, SwitzerlandThing: is a good lesson in transferring skills from Mathematics to Individuals and Societies, as I'm sure you've all learned to draw a bar and a line chart before. The way we are going to use these charts is to illustrate the average precipitation and temperature of each month of the year in a specific area. Remember that the weather is the average weather conditions for 30 days. But why do we bother using climate charts? Watch the youtube clip below and answer the following questions below: What is a weather graph? Why are climate charts useful? How do I draw a climate chart? How do we interpret climate charts? Climate GraphsClimate Graphs GridNow Question you know what a climate graph is and how it can help us compare areas and predict the weather in the future is your turn to draw a climate chart for Geneva. Follow the instructions below. Collect a piece of A4 graphic paperUse a pencil and ruler to draw your chart pencilsUse pencil crayons to color on the chartRebiase to label your axis and to give your chart a titleClimate Graphic Data for GenevaUse your Geneva weather chart answer the following questions that will help you interpret what you just drew. What is the average temperature for Geneva? What is the temperature range of Geneva? What is the total rainfall in Geneva? Is there a trend that is forming on the climate chart? Are you surprised by the data? If so, why? If not why? Add a line to your chart to show the average temperature. What months of the year would it be helpful to carry an umbrella? What months of the year would you advise your peers to use sun cream to prevent them from burning. Write in your book (or padlet) three other recommendations for people and what months they relate to. Use the video guide to draw your own climate chart for Jakarta. Remember: Plan your scale carefully before you begin; be sure to make room for annotations. There are always annotations. Use a ruler and sharp pencil to draw the axes and make sure they are clearly labeled (includes units)Plot precipitation as a bar chart. Use a pencil. Add blue. Plot the temperature using small clean x. Place the x in the middle of the month. Use a pencil. Join the red. Planning is the secret to effective annotation. There's a lot to add like this: Take it easy and think before you write. Find out where the annotations will fit best before adding them. You must aim for most of the items listed below. Remember to use DATA to support what it says (i.e. indicate temperature or precipitation values and name the month(s))! Maximum temperature (the month with the highest average temperature)Minimum temperature Minimum temperature range Temperature range (the difference between warmer and colder months)Maximum rainSa - look look on your chart and try to identify the seasons. There may be a hot season and a cold season; a wet season and a dry season; spring, summer, autumn, winter. Identify when they are and decrulating them. Anomalies - Are there figures that don't seem to fit the overall pattern? Climate Parameters for New York Draw another graph to show the weather for New York.In how is it similar to Jakarta's climate chart? Think of all the elements mentioned above (maximum and minimum temperature and rain; temperature range; seasonality)What are the main differences between new York and Jakarta weather? What aspects of climate and climate are missing from climate charts? Why do you think this is it? New York Graphic Finishing Example Jan Feb Mar Apr May May July July September Nov December (OC) 3 5 6 9 12 15 17 17 14 10 6 4 Precipitation (mm.) 150 124 109 75 62 46 36 38 64 115 170 179