Charts and tables are visual presentations of information and statistics in a simpler format for easy reference. Historians and other social scientists use charts and tables to organize, simplify, and summarize information and statistics in a way that makes the data more meaningful or easier to remember. The words chart and table are generally used interchangeably to refer to information that has been organized in a tabular format. A chart tends to have less text and little numerical data, while a table usually organizes statistics and other numerical information with a minimum of text. In both charts and tables similar kinds of information are organized in a tabular format using columns and rows. Labels and headings across the top and down the left-hand side explain what the numbers and text in the chart/table represent. Two common types of charts are a flow chart and an organizational chart. A flowchart shows a process, or how things happen. Flow charts are useful for outlining or simplifying the steps in a procedure. An organizational chart shows the inner workings of a particular organization, the particular offices, the duties of each official, and who has authority over whom. To read and interpret charts/tables, the reader should:

• Read the title or caption on the chart/table to find out what content is being presented. Ask the question, “What is the subject or topic of the chart/table?”
• Read all the headings and labels in the chart/table to determine what is being grouped and presented in each subcategory (each column and each row). Begin by reading the headings at the top to find out what categories of information they contain. Ask the question, “What kind(s) of information is being presented in the chart/table?”
• Read the information in the left-hand column, which is often organized alphabetically, chronological, or geographically. Ask the question, “What kind of categories or labels does the chart/table contain?” The vertical columns to the right of the left-hand column are the body of the chart/table.
• Look up any unfamiliar terms that appear in the headings. Study the information presented under each heading or category in the chart/table. Ask the question, “What information is presented in the left-hand row for each column heading?” Typically, a chart/table present either numerical data or text information on a subject/table.
• Identify similarities, differences, and other relationships among the data. Remember that some kind of relationship always exists between each column heading and each row.
• Compare the information being presented. Numerical data often can be ranked from smallest to largest.
• Analyze the relationship(s) among the numerical data and the text provided in the chart/table. Usually the data can be compared and a conclusion drawn. Ask the question, “How does the data for one topic/subject compare to that of another topic/subject?”
• Identify patterns and relationships in order to reveal information and connections about the subject/topic. Ask the question, “What patterns or relationships does the data show?”
• Use the data to make generalizations, draw conclusions, or make inferences. Ask the questions, “How can the information in the chart/table be summarized?” and “What conclusions can be drawn or inferences made from the information in the chart/table?”
• Ask a “why” question so students can evaluate the data presented in the chart/table.

Use this strategy as a systematic approach for reading and interpreting information found in a chart/table. While charts and tables present complex or detailed information in a simpler format than a text, students will need help to develop the skills necessary to analyze and interpret the information correctly. Use a chart or a table on a weekly basis in order for students to develop and hone their chart and table reading skills.
When it comes to demonstrating different sets of data and information, the most common way to display this information is through tables and charts.

The table below demonstrates the different types of tables and charts that are used to express social studies data:
How to Analyze Tables and Charts

The three charts below demonstrate different types of information. One way to analyze a table or chart is to not only understand the title and what each piece means, but also understanding what the theme the table or chart is associated with.
As with all types of visuals, you can use the following process to analyze, summarize, and determine the main idea of any table or chart you are presented with:

1. Read the title of the table or chart.
2. What is the subject or topic of the chart/table?
3. Read all the headings and labels in the chart/table and explain what the headings represent.
4. What information is being presented in each row for each column heading? (Chart, Graph or Table) or What information is being presented in each “slice”? (Pie Graph)
5. What is the representation between the visual and history and/or present day?
6. What is the main idea of the entire visual?
7. How can I summarize the information and apply it to social studies information?

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### Chart / Graph / Table Analysis

<table>
<thead>
<tr>
<th>Visual</th>
<th>What Type of Visual Is It?</th>
<th>What Do the Headings Represent?</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image of a table showing Urban and Rural Population of the United States, 1800–1920](source: U.S. Census Bureau)</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Urban and Rural Population of the United States, 1800–1920

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Percent Urban</th>
<th>Percent Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1800</td>
<td>5,308,483</td>
<td>6.1</td>
<td>93.9</td>
</tr>
<tr>
<td>1820</td>
<td>9,638,453</td>
<td>7.2</td>
<td>92.8</td>
</tr>
<tr>
<td>1840</td>
<td>17,063,353</td>
<td>10.8</td>
<td>89.2</td>
</tr>
<tr>
<td>1860</td>
<td>31,443,321</td>
<td>19.8</td>
<td>80.2</td>
</tr>
<tr>
<td>1880</td>
<td>50,189,209</td>
<td>28.2</td>
<td>71.8</td>
</tr>
<tr>
<td>1900</td>
<td>76,212,168</td>
<td>39.6</td>
<td>60.4</td>
</tr>
<tr>
<td>1920</td>
<td>106,021,537</td>
<td>51.2</td>
<td>48.8</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau

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8. What is the main idea of what I am looking at?
9. How can I summarize the information and apply it to social studies information?
Examine how to tear apart a table or chart to analyze it:

### What I See
- States from different parts of the US
- States are ranked by who has the most population
- The table shows information for 100 year time span

### Patterns I See
- Rankings have changed over time
- Population has somewhat shifted away from the industrial states of the US
- The pattern matches the creation of the Rust Belt

### What I Conclude
- The table has shown the relationship between population changes and the formation of the Rust Belt

The table above best demonstrates the -

A) population trends of selected Atlantic states.  
B) changes in the Electoral College over time.  
C) movement of people to the northern factories.  
D) increases of European immigration to the nation.

Based on the information from the table, the student realizes that the question is asking for a summary and possible effects of the information based on social studies information.

A - Some of the states are not considered Atlantic states
B - Yes because the higher the population a state has, the more Electoral votes it receives
C - No, people are moving away from the Rust Belt and to the Sun Belt
D - No, the statistics do not indicate immigration statistics from outside the U.S.

This is a tough question because it is not asking you to find information and report it out. The question requires a few more steps including making an inference and a conclusion.