



Unit 2: Interpreting and Creating Visual Aids

Guidelines for Using the Activities

2-1 Learning about Pictographs

Emphasize that graphs are visual representations of data. Be sure students understand the pictograph that is presented as an example. Then have students answer the questions about the pictograph. You can extend this activity by having students interpret pictographs they find in their textbooks and other reading materials.

2-2 Create Your Own Pictograph

Review what students learned about pictographs in Activity 2-1. Then have students create a pictograph for the data shown, and write questions and answers about it.

2-3 Learning about Pie Charts

Be sure students understand the pie chart that is presented as an example. Go over the process by which the principal used the data to determine the percentage of students who named each subject as their favorite subject. Then have students answer the questions about the pie chart. You can extend this activity by having students interpret pie charts they find in their textbooks and other reading materials.

2-4 Create Your Own Pie Chart

Review what students learned about pie charts in Activity 2-3. Then have students create a pie chart for the data shown, and write questions and answers about it.



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2-5 Learning about Vertical Bar Graphs

Point out that bar graphs are found in both vertical and horizontal formats. Be sure students understand the vertical bar graph that is presented as an example. Then have students answer the questions about the vertical bar graph. You can extend this activity by having students interpret vertical bar graphs they find in their textbooks and other reading materials.

2-6 Create Your Own Vertical Bar Graph

Review what students learned about vertical bar graphs in Activity 2-5. Then have students create a vertical bar graph for the data shown, and write questions and answers about it.

2-7 Learning about Horizontal Bar Graphs

Point out that a horizontal bar graph is sometimes used rather than a vertical bar graph when the labels for what is shown are too long to fit along the bottom of the graph. Note that other times, as is the case of the horizontal bar graph presented here, it is simply the preference of the person who creates the graph.

Be sure students understand that different shaded bars are used to show two scores for each state. Once students understand the horizontal bar graph that is presented as an example, have them answer the questions about it. You can extend this activity by having students interpret horizontal bar graphs they find in their textbooks and other reading materials.

2-8 Create Your Own Horizontal Bar Graph

Review what students learned about horizontal bar graphs in Activity 2-7. Then have students create a horizontal bar graph for the data shown, and write questions and answers about it.

2-9 Learning about Line Graphs

Point out that a line graph is typically used to show data over a period of time. Note also that different symbols and shades of lines were used to differentiate the data for the two schools. Once students understand the line graph that is presented as an example, have them answer the questions about it. You can extend this activity by having students interpret line graphs they find in their textbooks and other reading materials.

2-10 Create Your Own Line Graph

Review what students learned about line graphs in Activity 2-9. Then have students create a line graph for the data shown, and write questions and answers about it.



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2-11 Learning about Tables

Emphasize that a table is useful for showing a lot of information in a relatively small space. Once students understand the table that is presented as an example, have them answer the questions about it. You can extend this activity by having students interpret tables they find in their textbooks and other reading materials.

2-12 Create Your Own Table

Review what students learned about tables in Activity 2-11. Then have students create a table to show the information presented, and write questions and answers about it.

2-13 Learning about Time Lines

Point out that time lines can be presented in a vertical format or in a horizontal format. Be sure students know where earliest and most recent events are placed in each. Once students understand the time line that is presented as an example, have them answer the questions about it. You can extend this activity by having students interpret time lines they find in their textbooks and other reading materials.

2-14 Create Your Own Time Line

Review what students learned about time lines in Activity 2-13. Then have students create a time line to show the information presented, and write questions and answers about it.

2-15 Learning about Diagrams

Go over the definition of a diagram. Then have students examine the diagram of a hot air balloon. Next have students answer the eight questions about the diagram of the passenger liner and the four inference questions that follow. You can extend this activity by having students interpret diagrams they find in their textbooks and other reading materials.

2-16 Labeling a Diagram

Have students use what they learned in Activity 2-15 to label the parts of the automobile shown.

2-17 What I Have Learned

Use this activity to assess students' mastery of the unit.



Answer Key

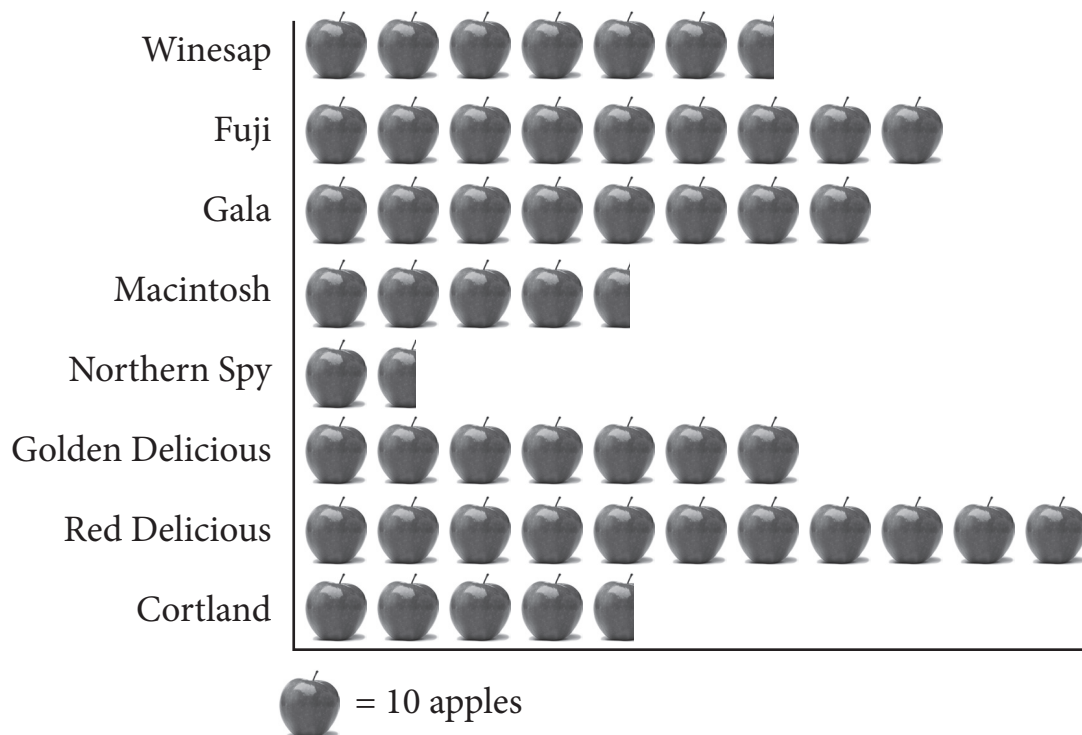
Activity 2-1

1. The annual precipitation for selected U.S. cities.
2. 2 inches of precipitation.
3. 1 inch of precipitation.
4. At the right or bottom of the pictograph.
5. 35 inches
6. Jacksonville and Houston
7. Phoenix
8. 2
9. Columbus
10. None

Activity 2-2

Here is an example of a pictograph for the data shown in the activity.

Apples Sold by the Good Times Supermarket



Questions and answers will vary.



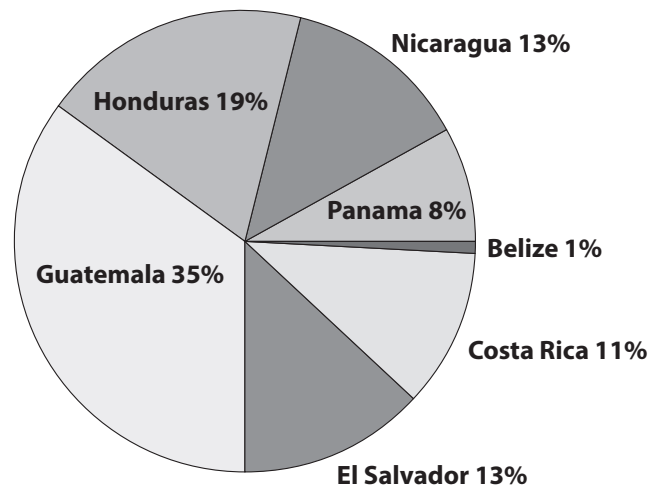
Activity 2-3

1. The favorite subjects of students in Hillsdale School.
2. Social studies
3. No
4. 13%
5. None
6. Because of rounding numbers to the nearest whole number.
7. No

Activity 2-4

Here is an example of a pie chart for the data shown in the activity.

Population in 2015



Questions and answers will vary.

Activity 2-5

1. The number of counties in selected states.
2. Seven
3. Kentucky
4. Cannot tell from the graph because not all states are included.
5. Makes it easier to see the exact number of counties.
6. 41
7. New York and Colorado
8. Yes
9. 56

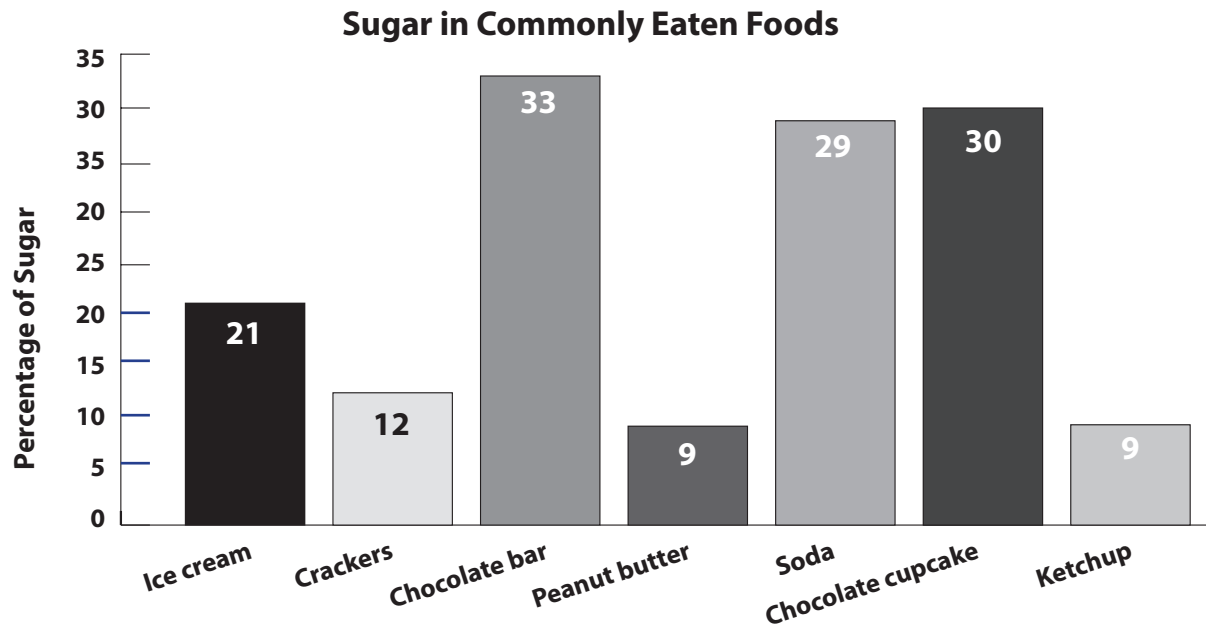


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Answer Key

Activity 2-6

Here is an example of a vertical bar graph for the data shown in the activity.



Questions and answers will vary.

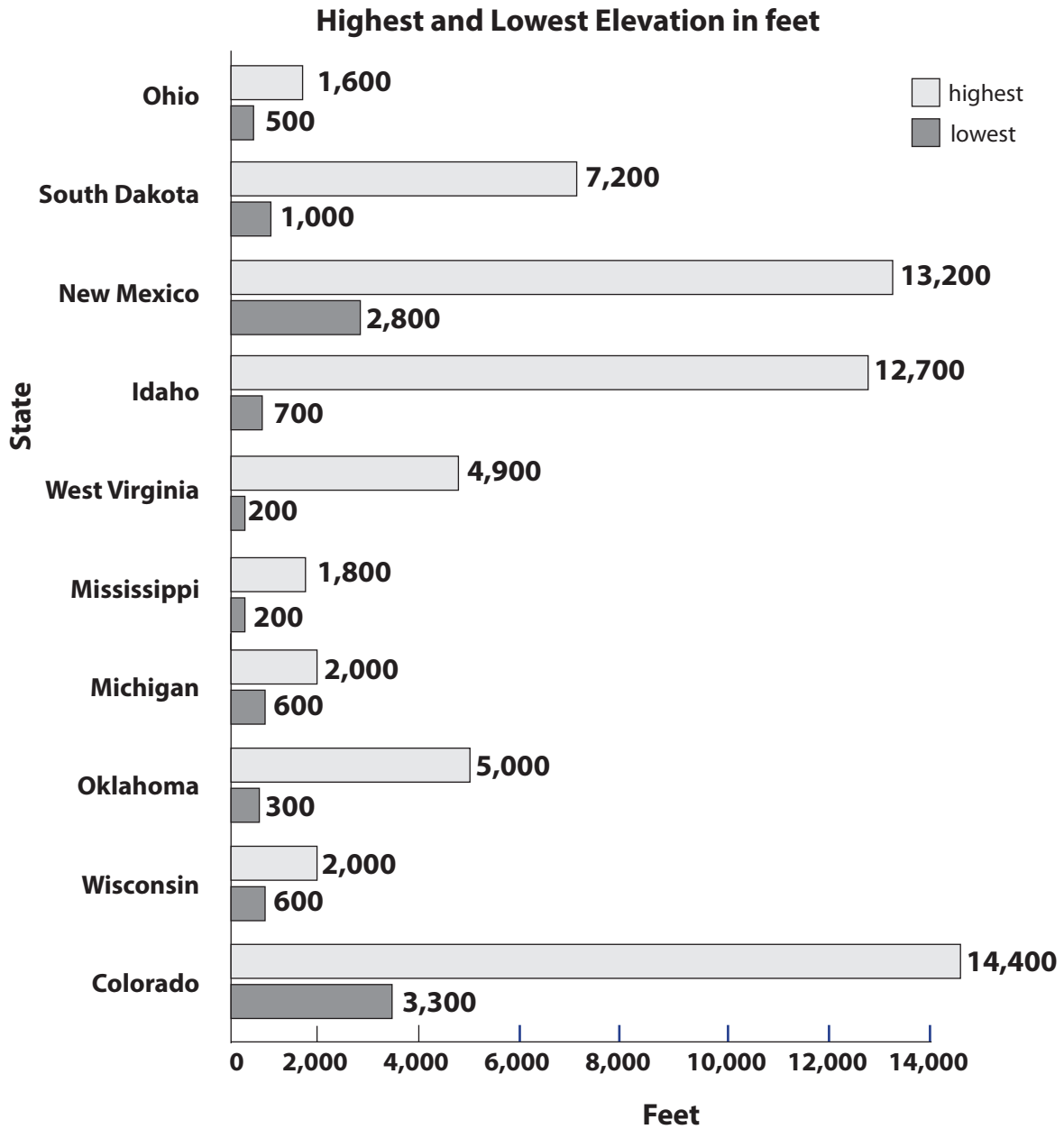
Activity 2-7

1. SAT Math and Verbal scores for selected states in 2015.
2. Math scores.
3. The legend shows this.
4. Tennessee
5. Michigan
6. Tennessee
7. Michigan
8. Michigan
9. Florida
10. Cannot be determined from the graph since the scores for Oklahoma were not shown.



Activity 2-8

Here is an example of a horizontal bar graph for the data shown in the activity.



Questions and answers will vary.



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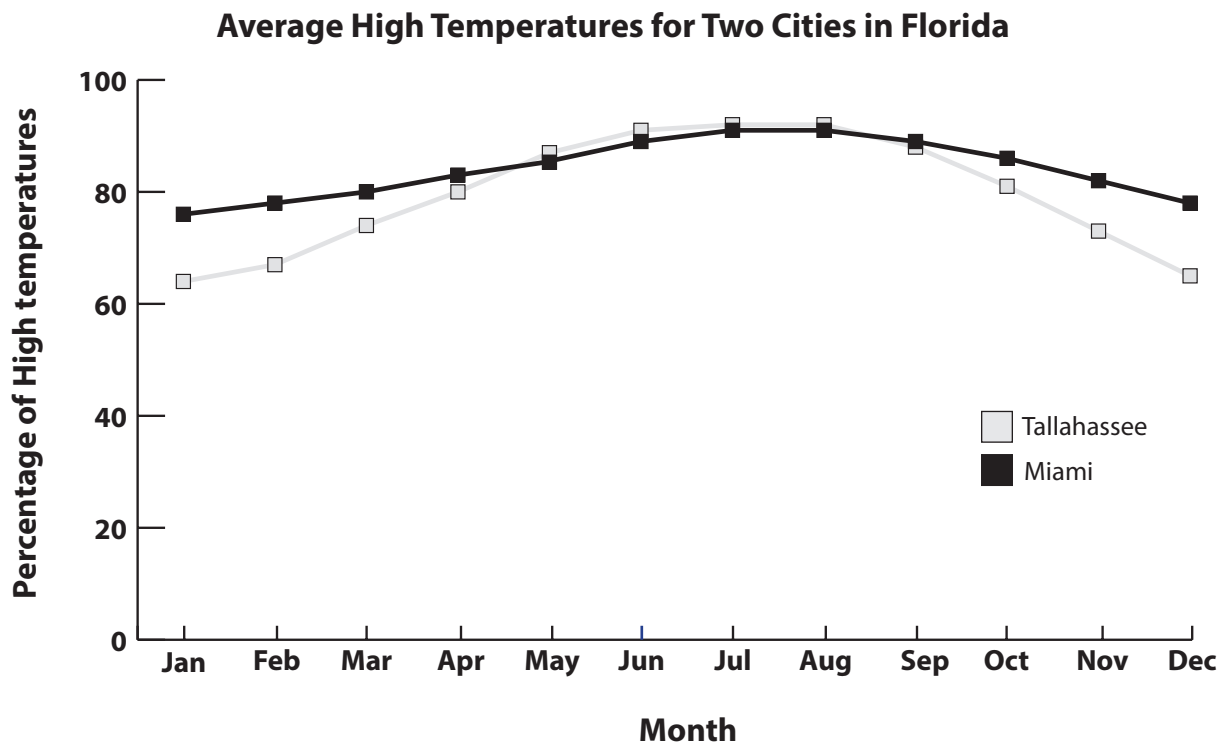
Answer Key

Activity 2-9

1. 11
2. A circle
3. 08-09
4. 05-06 and 06-07; 07-08 and 08-09
5. 15-16
6. 08-09
7. Yale
8. Yale's trend is going up while Harvard's is going down.
9. 09-10 through 11-12
10. Because the number of games played is not shown.

Activity 2-10

Here is an example of a line graph for the data shown in the activity.



Questions and answers will vary.



Activity 2-11

1. 2015 facts about selected countries.
2. Canada
3. Luxembourg
4. Luxembourg
5. Brazil
6. Vilnius
7. Luxembourg
8. Krona
9. Lithuania, Luxembourg, and France
10. Canada

Activity 2-12

Here is an example of a table for the information shown in the activity.

36th – 44th presidents of the United States						
Name	Party	Year born	Where born?	Years served	Age when president	Name of Vice President
Lyndon B. Johnson	Democrat	1908	Texas	6	55	Humphrey
Richard Nixon	Republican	1913	California	5	56	Agnew & Ford
Gerald Ford	Republican	1913	Nebraska	4	61	Rockefeller
Jimmy Carter	Democrat	1924	Georgia	4	52	Mondale
Ronald Reagan	Republican	1911	Illinois	8	69	Bush
George H. W. Bush	Republican	1924	Mass.	4	64	Quayle
Bill Clinton	Democrat	1946	Arkansas	8	46	Gore
George W. Bush	Republican	1946	Connecticut	8	54	Cheney
Barack Obama	Democrat	1961	Hawaii	8	47	Biden

Questions and answers will vary.



Activity 2-13

1. U.S. major events during the 20th century.
2. 8
3. One
4. 1960 - 1970
5. Japan bombed Pearl Harbor.
6. 1969
7. Five
8. Stock market crashed.
9. 9
10. 1963
11. The civil rights movement
12. They happened after 2000.

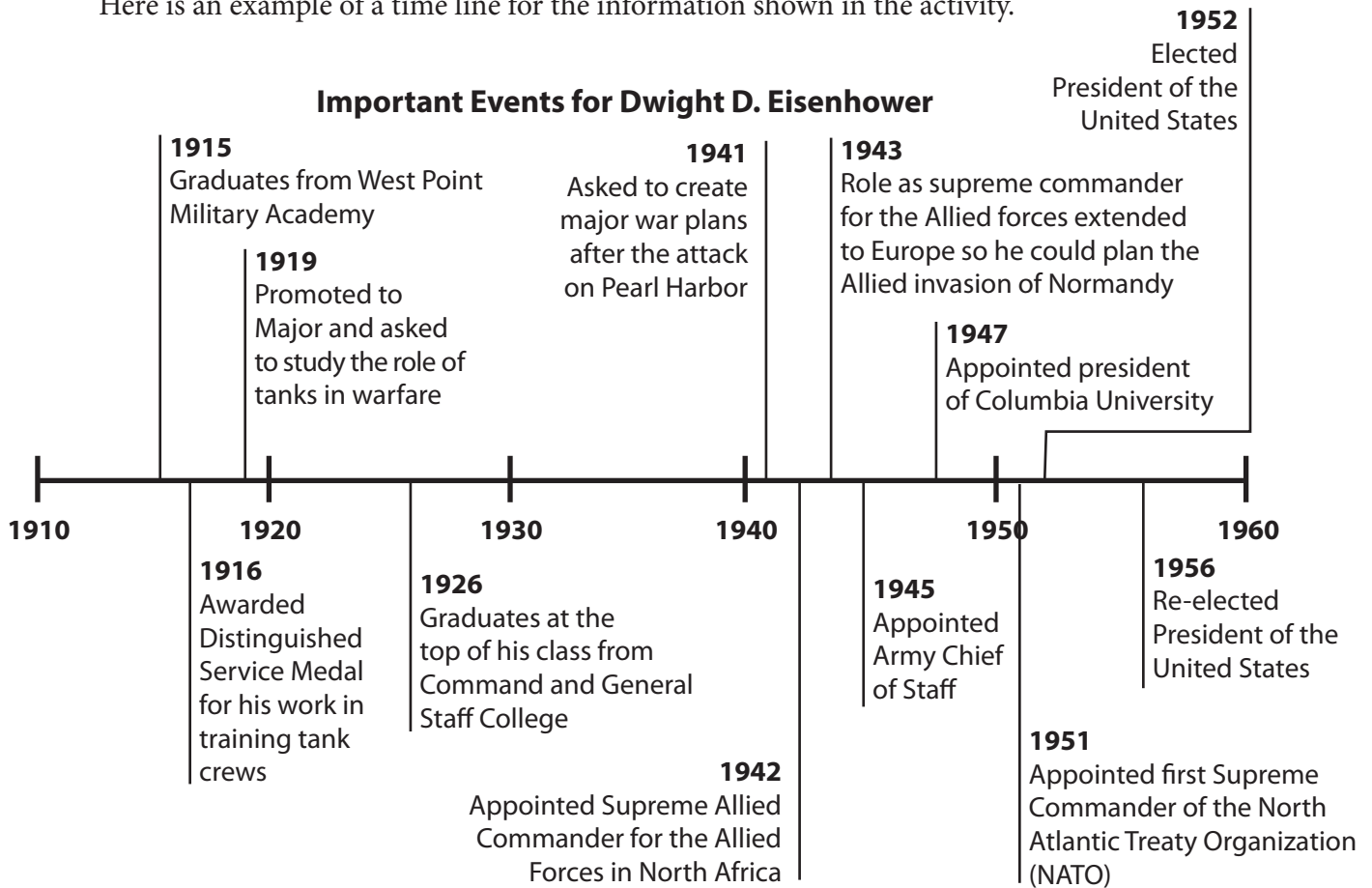


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Answer Key

Activity 2-14

Here is an example of a time line for the information shown in the activity.



Questions and answers will vary.



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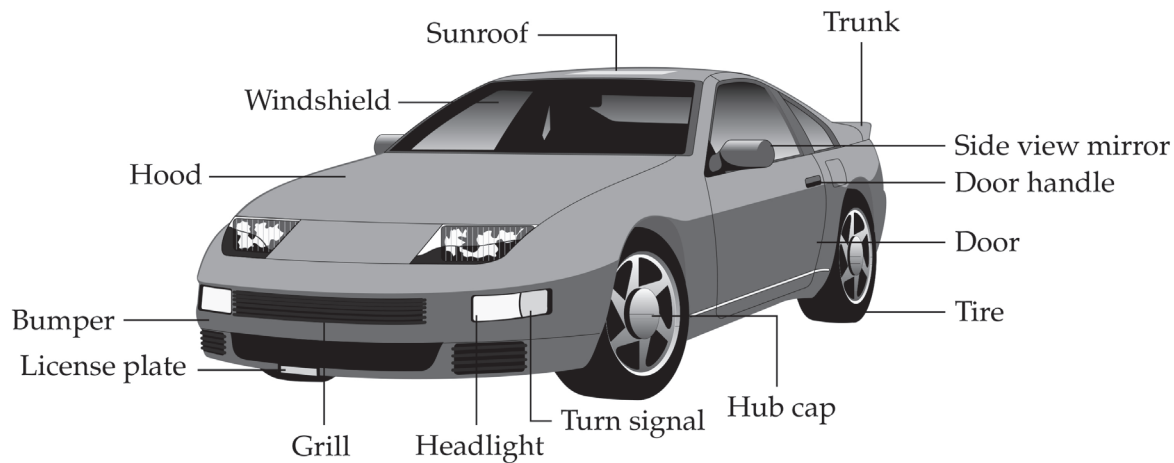
Answer Key

Activity 2-15

1. Smokestack
2. Behind
3. At the rear or back of the liner.
4. Yes
5. At the front bottom of the liner.
6. Masthead light
7. No
8. 6
9. The captain
10. When the liner is in danger of sinking.
11. When the liner stays in a port.
12. To detect objects that may be a danger to the liner.

Activity 2-16

Here is the automobile correctly labeled.





Activity 2-17

1. Line graph
2. Pie graph or circle chart
3. When the labels for what is shown by each bar are too long to fit along the bottom of the graph.
4. By looking at the legend.
5. Time line
6. Table
7. The parts of an object or thing.
8. Pictograph
9. At the top
10. At the right
11. Responses will vary.