AV2 NONFICTION Activities

Designing a Structural Wonder

Follow the instructions to complete the activity.

NAME

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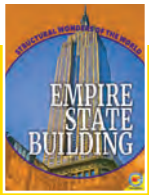
Imagine you are designing a brand new structural wonder. Where would you put it? What materials would you use? What features would you include? What would inspire its design? If you were to include a geometric pattern, what would it look like? Write a description of your structural wonder, and draw a picture of it.

DESCRIPTION



Picture Description Match

Follow the instructions to complete the activity.

NAME

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Look at these pictures relating to the Empire State Building. Label each picture correctly.

☐ **A** Outdoor observation deck

☐ **B** Indoor observation deck

☐ **C** Facade

☐ **D** Spire

☐ **E** Lobby

Know Your Numbers

Follow the instructions to complete the activity.

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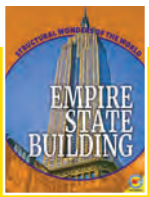
Complete the statements by filling in the correct number.

The construction of the Empire State Building took a total of this many million work hours.		**2018**
The building weighs this many tons.		**1,454**
The building's elevators move this many feet per second.		**80**
A new visitor entrance opened on 34th Street in this year.		**7**
Construction was completed in this year.		**365,000**
The structure is this many feet tall to the top of the lightning rod.		**1,400**
On a clear day, visitors to the Empire State Building can see a view that extends this many miles.		**1931**



AV2 NONFICTION Activities

True or False

Follow the instructions to complete the activity.

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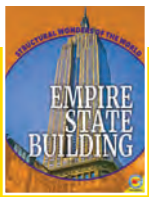
Using information found in the book, verify whether the following statements are true or false. Check your answers in the book. List the page number where you found the information beside your answer.

Statement 1	The Empire State Building was designed in the romantic style that was popular at the time.	☐ True ☐ False	Page Number	
Statement 2	Besides its outdoor observation deck, the 63rd floor features an indoor observation deck as well.	☐ True ☐ False	Page Number	
Statement 3	Steel is much stronger than iron, and it is used in many structures, including the Empire State Building.	☐ True ☐ False	Page Number	
Statement 4	Compression pulls materials apart, while tension pushes materials together.	☐ True ☐ False	Page Number	
Statement 5	The Empire State Building in New York City is one of the world's most visited buildings.	☐ True ☐ False	Page Number	



Test Your Knowledge

Follow the instructions to complete the activity.

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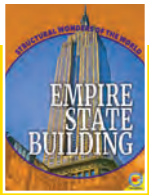
Test your knowledge of the Empire State Building by answering these questions.

1. What are the forces that architects must consider when designing a building?

2. What is the facade of the Empire State Building made of?

3. New York shares a southern border with which states?

4. How quickly can a racer reach the 86th floor of the Empire State Building?



Quiz

Test your knowledge by answering these quiz questions.

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1 When was the Empire State Building completed?

2 How long did the construction of the Empire State Building take?

3 What was the name of the architectural firm that designed the Empire State Building?

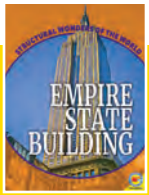
4 What building was demolished to make room for the Empire State Building?

5 What was the intended purpose of the spire?

6 What is a load?

7 What was the role of a gunman on a riveting team?

8 When was the new vistor entrance built?



AV2 NONFICTION Activities

Key Words Match-Up

Write the words from the list below in the box above the correct definition for each word.

NAME

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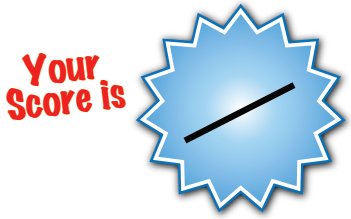
KEY WORDS

assembly line	**geometric**
cast	**Great Depression**
compression	**loads**
corroded	**rivets**
foundation	**tension**



1. [ ]
eaten or worn away

2. [ ]
weights or sources of pressure carried by an object

3. [ ]
the state of being stretched

4. [ ]
a sequence of machines, tools, workers, and operations in a factory, arranged so that at each stage a further process is carried out

5. [ ]
a period during the 1930s when many people lost their jobs

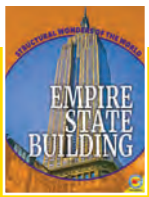
6. [ ]
the act of being flattened or squeezed together by pressure

7. [ ]
the part of a building that helps support its weight

8. [ ]
formed into a particular shape by pouring into a mold

9. [ ]
metal items which are used to fasten large pieces of metal together

10. [ ]
pertaining to a type of mathematics that deals with the relationships between points, lines, and angles



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Key Words Match-Up

Write the words from the list below in the box above the correct definition for each word.

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KEY WORDS

acid rain	**pistons**
architects	**setbacks**
dirigibles	**spire**
forge	**weathering**
investors	

11. [ ]
a furnace where metals are heated

12. [ ]
people who design and supervise the construction of buildings

13. [ ]
disks that slide back and forth in a hollow cylinder

14. [ ]
step-like recessions in the rise of a tall building

15. [ ]
a tapering structure at the top of a building

16. [ ]
the breaking down of stone by the action of rain, snow, etc.

17. [ ]
people who support a project with money

18. [ ]
precipitation containing pollution that can harm the environment

19. [ ]
types of airships sometimes called blimps