

# LIGHTNING STORMS

# STAGE 3

Lightning is caused by the rapid discharge of electricity during a storm. Many small bits of ice within a thundercloud rub together and build up an electric charge. When the charge builds up enough, it creates a path for the electricity to pass from the ground up to the cloud. That's right, the lightning that we see is actually travelling up to the cloud, not down!

**TEMPERATURE OF A BOLT**  
**50,000°F**  
**5X HOTTER**  
**THAN THE**  
**SUN**  
SURFACE OF THE



**HOW MANY STRIKES?**  
AROUND THE WORLD, THERE ARE  
**50 BOLTS PER SECOND**  
**4 MILLION PER DAY**  
**1.4 BILLION PER YEAR**



**HOW MUCH ELECTRICITY?**  
**UP TO 1,000,000,000 VOLTS**  
**ENOUGH TO POWER**  
**HUNDREDS**  
**OF HOMES FOR A DAY**



**STRIKE, YOU'RE OUT**  
Lake Maracaibo in Venezuela is the most struck part of Earth. Warm and cold air combine to form a phenomenon called Catatumbo Lightning. The area around the lake is struck by lightning an average of 280 strikes per hour, for ten hours a day!



**LIGHTNING NEVER STRIKES TWICE**  
In 2020, the Guinness world record for the most number of lightning strikes on one person was held by Roy Sullivan. Roy worked as a park ranger in the United States. He survived being struck by lightning on seven different occasions!



## RETRIEVAL FOCUS

1. How hot can a bolt of lightning get?
2. Roughly, how many bolts of lightning strike the Earth each year?
3. Where in Venezuela is most struck by lightning?
4. What was Roy Sullivan's job?
5. How many houses could be powered by one bolt of lightning?

## VIPERS QUESTIONS

**V**

Write three words that you think describe Roy Sullivan. Explain why you chose each one.

**S**

Explain what causes Catatumbo Lightning.

**S**

How is regular lightning formed?

**V**

Which word or phrase tells you that electricity is released quickly during a lightning storm?

**I**

How do you think the author feels about the final fact in the introduction? What makes you think this?

Answers:

1. 50,000F
2. 1.4 billion
3. Lake Maracaibo
4. Park ranger
5. Hundreds

V: Lucky/unlucky, fortunate/unfortunate or any others with explanation.

S: Warm and cold air combining

S: Accept summaries that show an understanding of the introduction paragraph and the process explained within

V: Rapid discharge

I: The use of “that’s right” and the explanation mark