



# ▶ Lessons About LIGHTNING

by Lawrence Chandler



HOUGHTON MIFFLIN



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**HOUGHTON MIFFLIN HARCOURT**  
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Lightning lights  
up the sky.





## LIGHTNING AND THUNDER


During a thunderstorm, there may be **pounding** wind and rain. You may also see a **flash** of light in the sky. That bright, sudden light is called lightning.



Some people love to watch lightning. Other people think it is scary—and it can be. Lightning can cause a lot of **damage**, so everyone should be careful during a thunderstorm.




 You see lightning strike before you hear the thunder.

 Have you ever heard thunder during a thunderstorm? Thunder is the sound that lightning makes. The speed of thunder is not **equal** to the speed of lightning. Sound travels more slowly than lightning. For that reason, when lightning strikes, you hear thunder after you see the lightning.





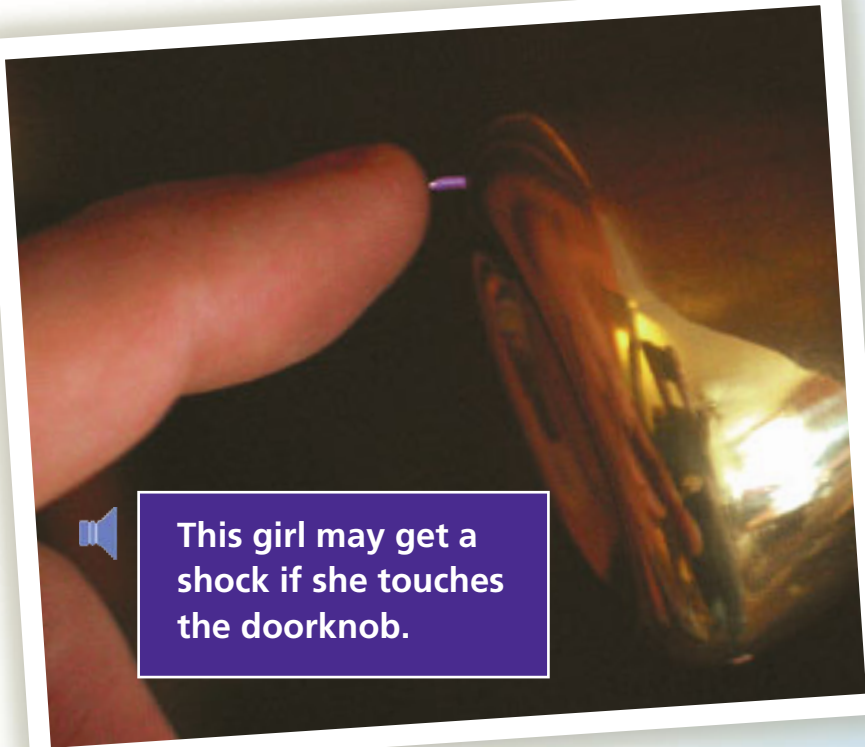
 Lightning travels faster than an airplane.

 Lightning travels very fast. It travels much, much faster than an airplane or a space shuttle. In fact, lightning could travel from Earth to the Moon in less than three seconds!

## 🔊 HOW LIGHTNING IS MADE

Lightning is a strong flash of electricity in the sky.

🔊 You can make a spark that is like a very small flash of lightning. Go across a carpet, rubbing your feet as you do. Then touch a metal doorknob with your finger. You may see a tiny spark and feel a little shock, or tingle, in your finger. The tiny spark is a very small example of a flash of lightning.



🔊 This girl may get a shock if she touches the doorknob.



## Lightning forms in clouds.

Lightning is a huge spark. First, storm clouds fill up with raindrops and tiny pieces of ice. Then the raindrops and ice bump into one another. All that bumping causes electricity to build up, as it does when you rub your feet on the carpet.

Once electricity builds up, a spark is made. That spark is lightning. Lightning may strike inside a cloud or between clouds. Or lightning may reach the ground.



Lightning can split a tree trunk.

## THE DANGERS OF LIGHTNING

Lightning is very powerful. Lightning is so powerful that it can split tree trunks. It can destroy telephone lines. It can even break apart brick walls.





Lightning starts many forest fires.

Lightning is also very hot. It is hotter than the outside of the sun. Lightning is so hot that it can cause fires. In fact, it causes thousands of forest fires every year.



A lightning rod protects tall buildings.

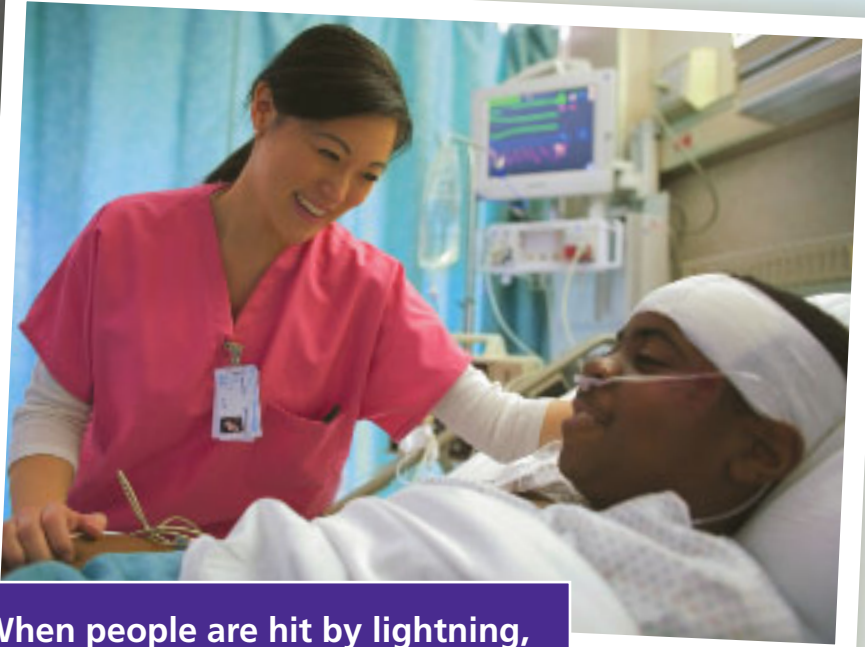
Lightning often hits tall buildings. A lightning rod can keep these buildings safe. A lightning rod is a metal rod attached to the top of a building. The tip of the rod is higher than the top of the building. A wire runs from the rod to the ground. If lightning strikes, it hits the rod, not the building. The electricity runs through the wire and into the ground. That way, the building will not be damaged.



Lightning can be dangerous.

Lightning can damage forests and buildings. It can also hurt people. Lightning strikes people every year. Lightning can burn people. Sometimes people get hurt when lightning knocks them down.





When people are hit by lightning, they should see a doctor.

Very few people die from being hit by lightning. Most of them live to tell their family and friends about what happened. But you should **beware** of lightning during a thunderstorm.

It is a good idea to avoid taking chances. If you follow some important safety rules, you can **prevent** dangerous accidents.



## SAFETY RULES ABOUT LIGHTNING

Here are some rules to follow if you are outdoors when a thunderstorm strikes.

- If you are swimming, get out of the water. If you are in a boat, go to shore.
- Go indoors if you can.
- If you cannot go indoors, don't stand under a tree.
- Don't stand in an open area. Try not to be the tallest object around.
- **Bend** over or crouch, but don't lie on the ground.



These people are staying out of the water to be safe.

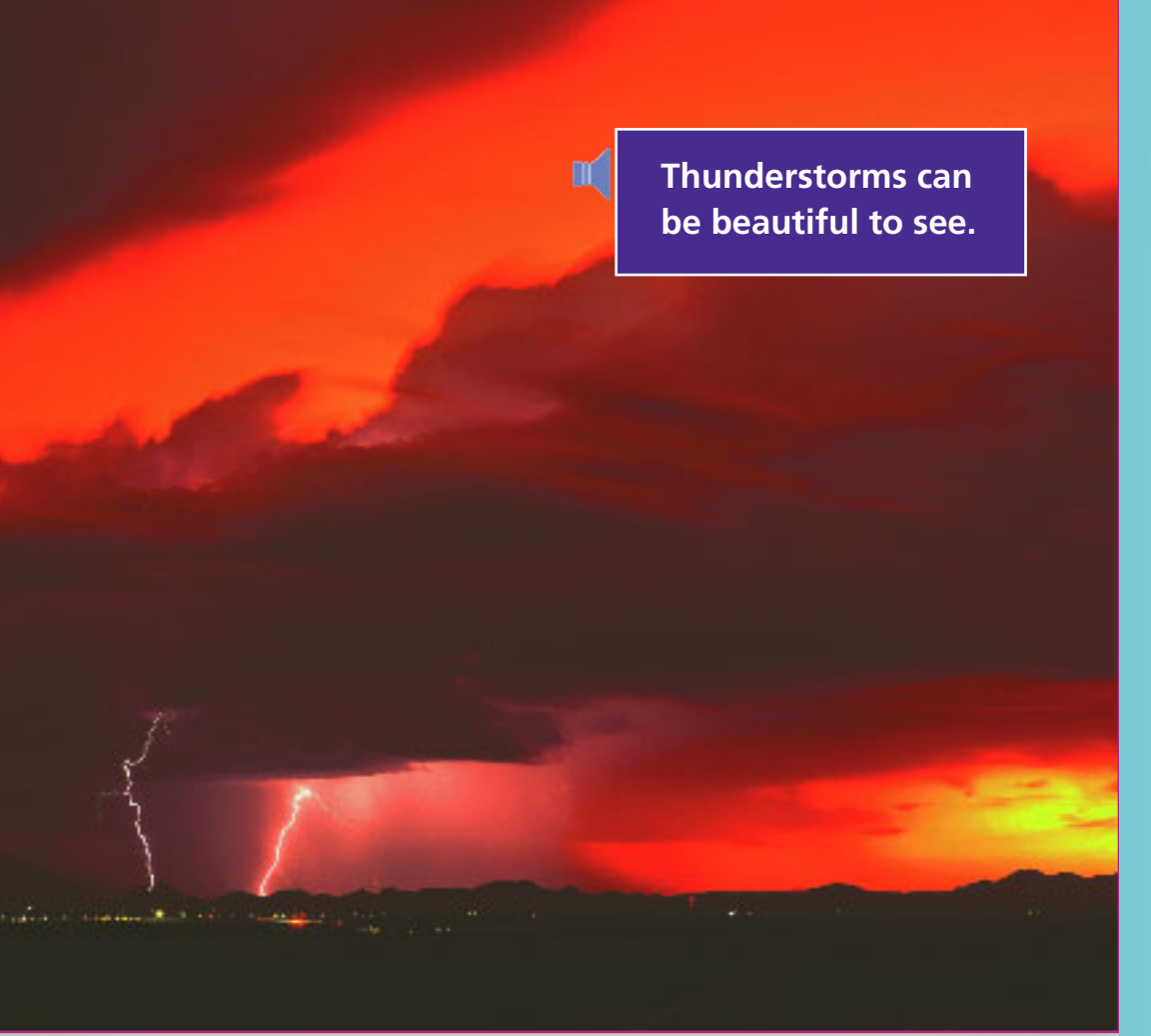


This family is staying in the car during a thunderstorm.



Here are rules to follow if you are indoors or in a car during a thunderstorm.

- If you are in a car, stay in the car. Don't get out unless you can go inside a house.
- If you are inside a house, stay away from windows.
- Don't take a bath or shower during a thunderstorm.
- Don't use the telephone.
- Don't use electrical items, such as hair dryers or electrical toothbrushes.



Thunderstorms can be beautiful to see.

Some people find thunderstorms exciting. But they should never forget that thunderstorms can be dangerous. Other people are frightened by thunderstorms. These people should remember that thunderstorms do not have to be scary. If they obey the safety rules, they do not have to worry.

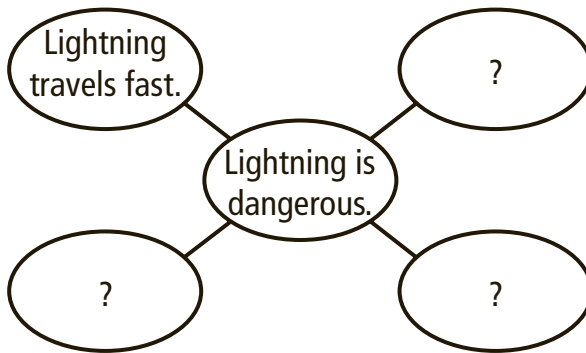


# Responding



## TARGET SKILL Main Ideas and Details

What details from the book tell you that lightning is dangerous? Copy and complete the web below.



## Write About It

**Text to Text** You've just read about lightning. Think of another book you've read that describes a dangerous weather event. Write a paragraph that summarizes what makes that weather event dangerous.





### TARGET VOCABULARY

bend  
beware  
damage  
equal

flash  
pounding  
prevent  
reach

### EXPAND YOUR VOCABULARY

electricity  
lightning

shock  
strikes



### TARGET SKILL **Main Ideas and Details**

Tell important ideas and details about a topic.



### TARGET STRATEGY **Visualize** Picture what

is happening as you read.



**GENRE Informational text** gives facts about a topic.

**Level:** N

**DRA:** 34

**Genre:**

Informational Text

**Strategy:**

Visualize

**Skill:**

Main Ideas and Details

**Word Count:** 850

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