

# **CONDENSATION OF Look Up to See What the Weather Will Be**

By Guy Brown

Illustrated by Mario Lugo

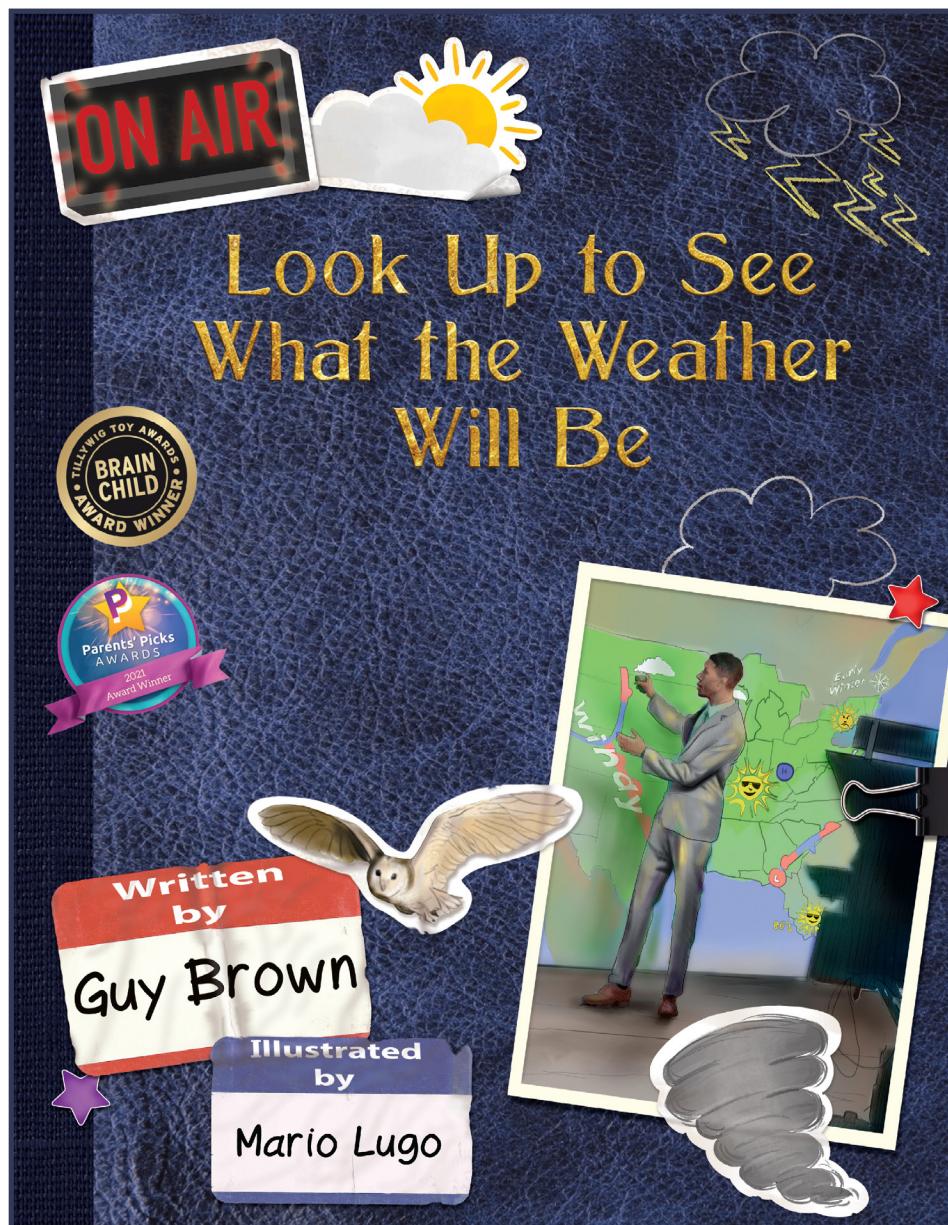
Includes pages 6, 7, 2, 13, 24, 25, 30, 31, 38, 39, 40, 41, 44, 45, 50, 51

Hardback (\$16.95) ISBN 13: 978-1-938492-42-6

Paperback (\$14.95) ISBN 13: 978-1-938492-43-3

Ebook (\$13.99) ISBN 13: 978-1-938492-44-0

November 2021 • 54 Pages



Science, Naturally!

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### TEACHER'S GUIDE AVAILABLE



Hands-on activities, vocabulary, and additional resources are available in our Teacher's Guide. Download it today at the Educational Resources page of [ScienceNaturally.com](http://ScienceNaturally.com)

The word "meteor" comes from a Greek word meaning "things high up." A person who studies the weather, like me, is called a METEOROLOGIST. 

I gather data collected from many different tools and, using math and science, turn that data into a forecast. My job is to communicate the weather forecast to my community.

In the United States and many parts of the world, anyone can gather scientific data. You can share your own weather observations with meteorologists to help keep them updated with local changes in the weather. Many citizen scientists, both children and adults, report their sightings with local meteorologists or national weather organizations.



Satellites don't always show us the whole picture. Meteorologists need to keep track of many different measurements like temperature, air pressure, the oceans tides, rainfall, and snow. With these tools, you can record your very own data:

## RAIN GAUGE

Measures  
the amount  
of rain that  
has fallen.



RULER

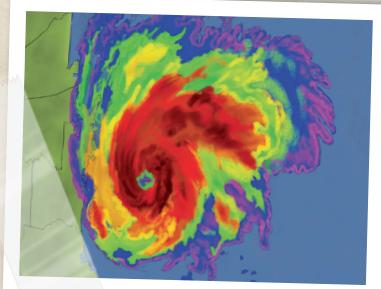
Measures  
the amount  
of snow that  
has fallen.



TV and radio meteorologists rely on a technology called Doppler Radar to understand which way raindrops are moving and how much precipitation is falling. This information helps them figure out the strength of a storm.

## RADAR IMAGE

Shows the intensity of the storm. Red is powerful and green is gentle.



## BAROMETER

Measures the weight,  
or pressure, of the air.



TIDE STAFF

Measures the water level in the sea



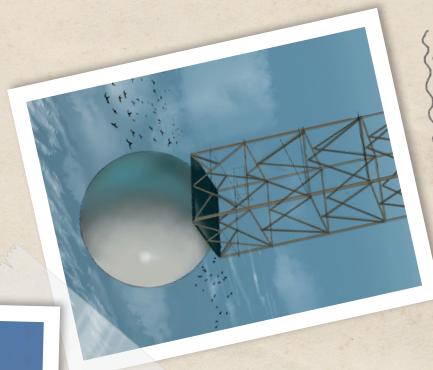
# THERMOMETER

Measures how warm or cold the air is



RADAR TOWER

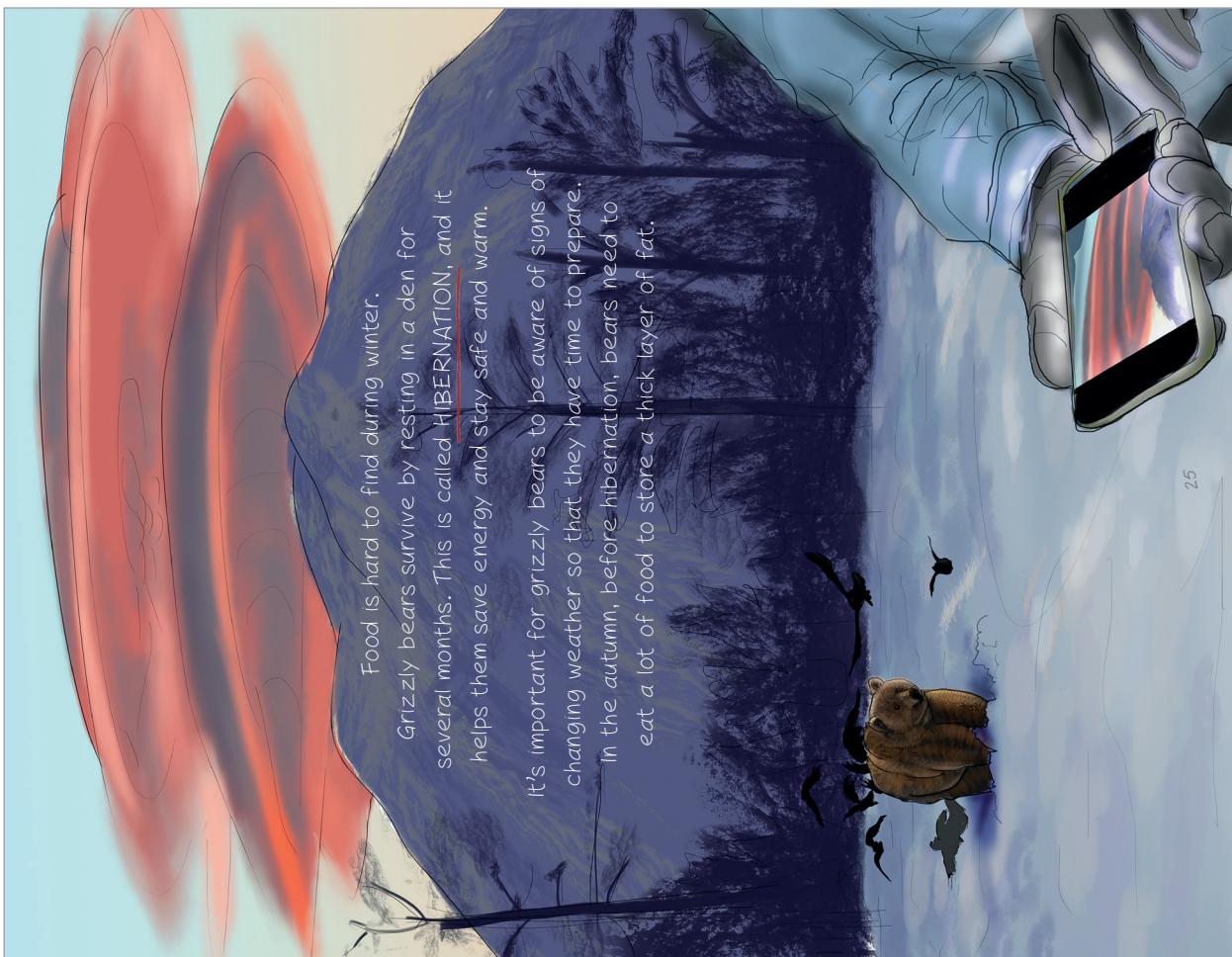
Measures the strength of precipitation and wind by emitting radar waves.



## RADAR TOWER

Measures the strength of precipitation and wind by emitting radar waves.







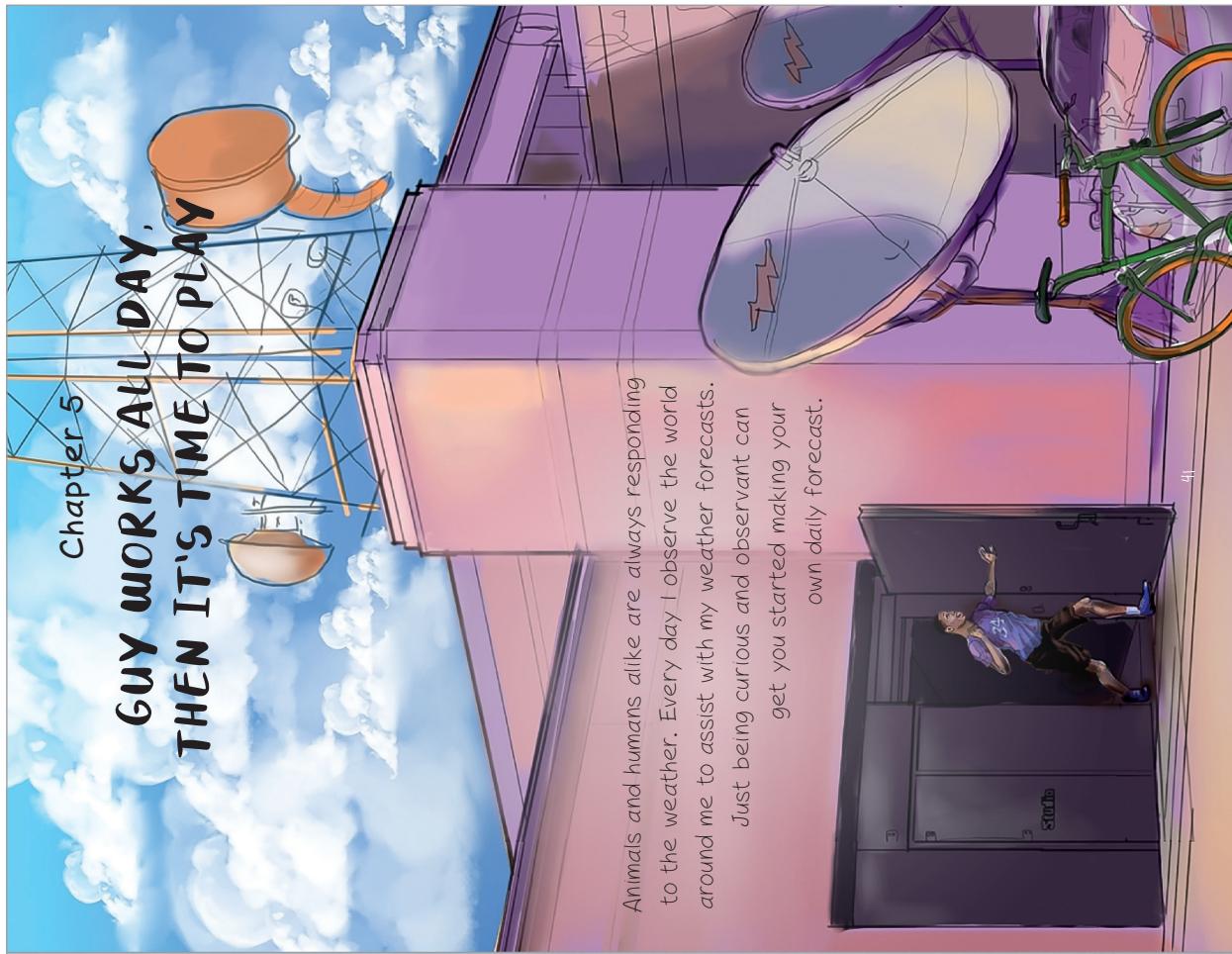
Sea lions use their stiff, sensitive whiskers to feel where they are going and locate prey underwater. Mother sea lions spend many hours a day hunting, then return to the beach to nurse their pups. Even on foggy days, each mom must find her pup in the crowded, noisy rookery. Their great hearing helps moms pinpoint their pup's specific bark among hundreds of others.

Fog isn't the only challenge for sea lions.  
Sometimes the temperature gets  
too hot or too cold, but there's  
an adaptation for that, too.

With the largest ears of any animal, elephants can hear the sound of approaching storms. They listen for rain clouds being formed miles away. The herd heads to dry watering holes or stream beds near the storm, knowing the rain will fill them up.

Elephants don't seek cover in heavy rains. Their skin is thick, and they have a layer of fat that keeps them warm and dry. Elephants satisfy their thirst at the watering holes, but they also suck up water with their trunks and spray each other to cool down.

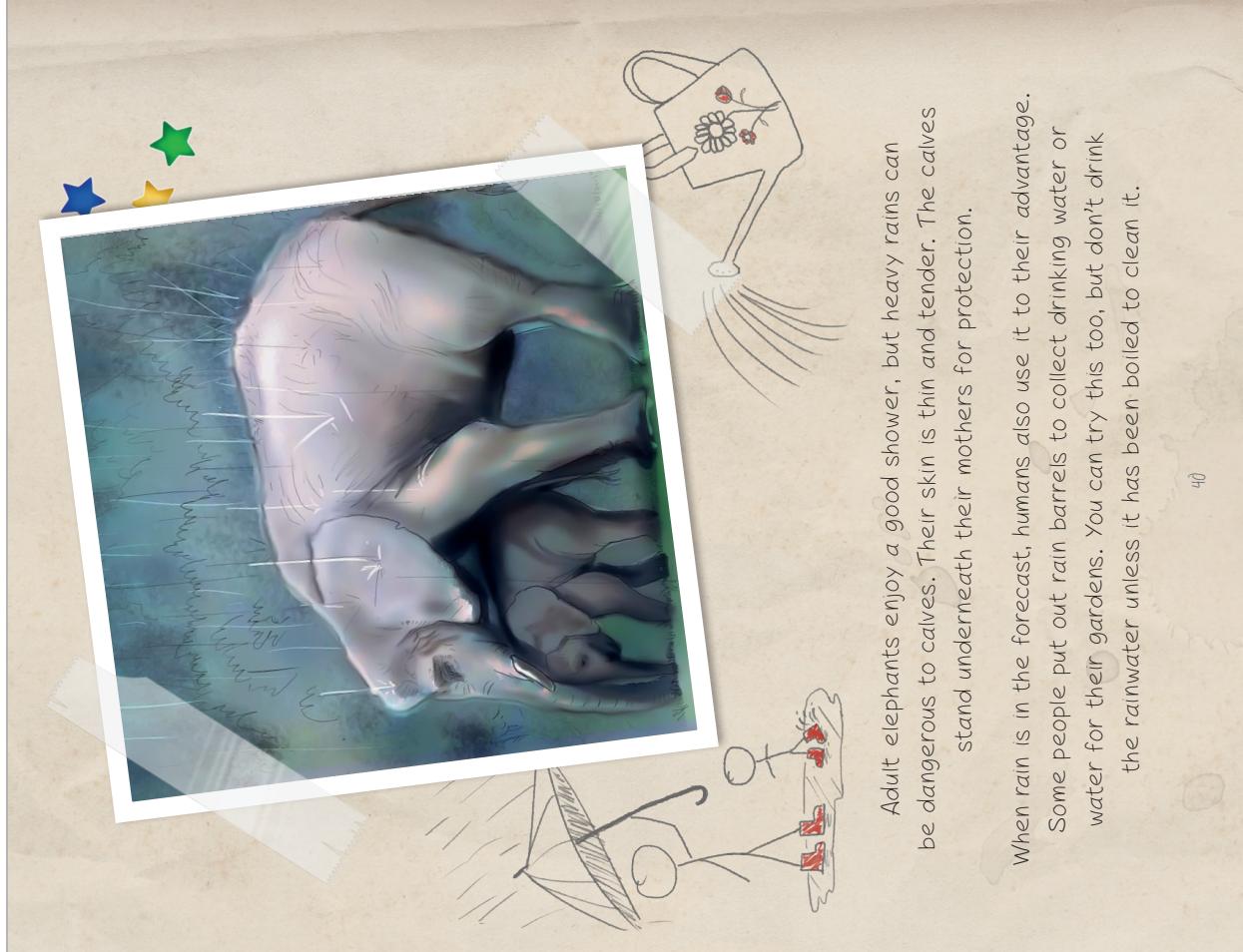




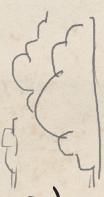
Animals and humans alike are always responding to the weather. Every day I observe the world around me to assist with my weather forecasts. Just being curious and observant can get you started making your own daily forecast.



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# THE SKY IS THE LIMIT!!



## MY WEATHER JOURNAL

By: \_\_\_\_\_

Doodle a cloud:



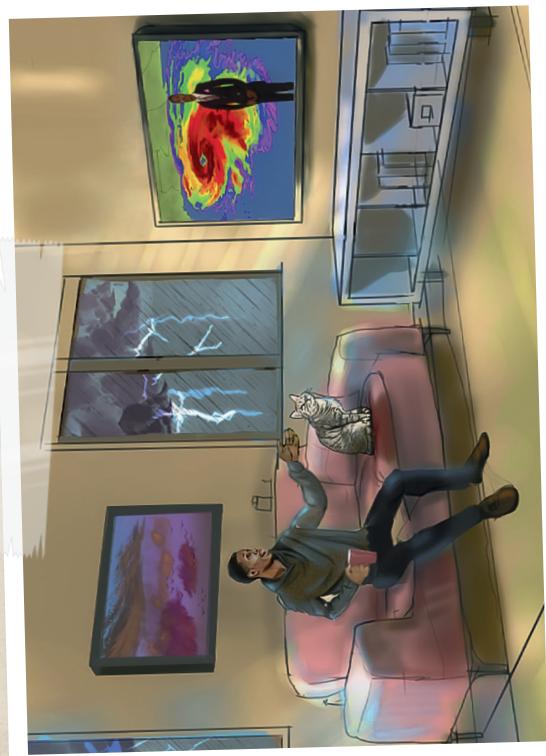
Doodle an animal:

After I saw this animal,  
the weather was:

Notes: \_\_\_\_\_

44

Just like me, you can stay one step ahead of the changing skies.  
Look up—and all around—to see what the weather will be!

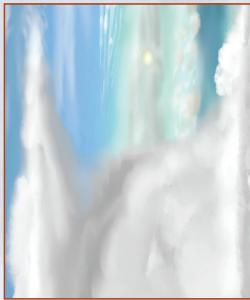


After I saw this cloud,  
the weather was:

45

## TOWERING CLOUDS:

Cumulus and cumulonimbus clouds can start low in the sky and grow very tall into the higher levels of the sky.



## CIRROCUMULUS

Enjoy the sun, but there could be a storm or hurricane on the way if you live next to the beach.



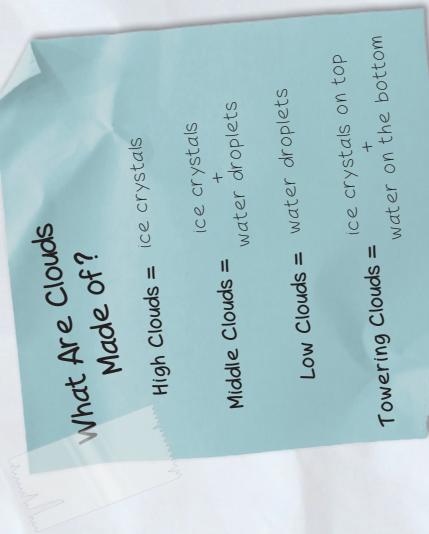
## CIRRUS

Appears when sunny, but could mean warmer or stormy weather coming soon.



## CIRROSTRATUS

Appears one day before rain or snow.



## CIRROCUMULUS

Enjoy the sun, but there could be a storm or hurricane on the way if you live next to the beach.



## ALTOSTRATUS

Pack an umbrella! Continuous rain or snow could be on the way.



## AUTO CUMULUS

Seen in the morning, this could mean thunderstorms in the evening.



## STRATOCUMULUS

Rain or snow is rare. Usually means dry weather.



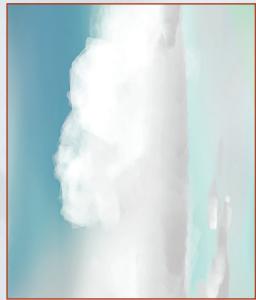
HIGH CLOUDS  
(0 - 6,500 ft  
20,000 - 35,000 ft)

MIDDLE CLOUDS  
(6,500 - 20,000 ft  
(1,981 - 6,096 m)

LOW CLOUDS  
(0 - 1,981 m)

## CUMULONIMBUS

Big, dark, thunderstorm clouds that grow tall. A tornado could be possible.



## NIMBOSTRATUS

It's currently raining or snowing out! These low clouds can sometimes rise to the middle level.



## STRATUS

These clouds can touch the ground and make it foggy, cloudy, or drizzly.



Appears in many different shapes on a sunny day.

## CUMULUS

Appears in many different shapes on a sunny day.



## TAKE A LOOK INTO GUY'S WEATHER JOURNAL...

Go behind the scenes of weather forecasting with TV meteorologist Guy Brown! Guy shares his weather journal to show you exactly what weather forecasting is like—from reading satellite images at the studio to reporting on location in extreme weather conditions.

Since weather affects all living things, predicting and responding to changes in the weather is important to both humans and animals.

In his journal, Guy teaches you about the tools and adaptations that are used to survive in blinding fog, crackling thunderstorms, and whirling tornadoes.

Grab your rain boots, pack some sunscreen, and get ready for a weather adventure. Don't forget to watch the clouds and take notes along the way—by the end, you'll be ready to become a meteorologist just like Guy!

"A terrific introduction to weather and the tools of forecasting! Informative, entertaining, and uplifting—this book features vivid illustrations and rhyming chapter titles that are inviting and relatable. I highly recommend this book for young readers and parents and teachers as well."

— Spencer Christian, Weather Forecaster,  
ABC7 News/KGO-TV, San Francisco

"A perfect book to help kids understand how and why meteorologists engineer weather forecasts. Guy Brown shows readers how humans and animals are universally affected by the weather. Eye-catching and inspiring!"

— Jason Lindsey, Hooked On Science,  
Meteorologist, STEM Certified Educator



Sparking curiosity  
through reading

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Teacher's Guide Available  
ISBN 13: 978-1-938492-43-3

