



The Mini Page

Issue 38, 2023

Founded by Betty Debnam

Next Week:
Our states:
New
Hampshire

What's El Niño?



photo by tducas5000

Mini Fact:

El Niño can last for a few months to several years.

Many countries around the world experienced heat waves last summer. This was in part due to a weather event called **El Niño** (el NEEN-yo), which means "the boy."

This week, The Mini Page takes a closer look at El Niño and how it affects the world.

What is El Niño?

El Niño happens when sea temperatures rise in the surface waters in the Pacific Ocean.

Weather around the world depends a lot on ocean temperatures. Clouds form where the ocean is warm, and more rain falls in that area. The ocean water near the **equator** is very warm because of its close proximity to the sun. (The equator separates the Northern and Southern hemispheres.)



image courtesy of NASA

NASA reports, "Normally, strong winds along the equator push the warm surface water near South America westward toward Indonesia. When this happens, the cooler water underneath rises up toward the surface of the ocean near South America."

However, on occasion, those winds aren't as strong as they usually are. Sometimes the winds even blow the opposite direction — toward South America instead of Indonesia. When this happens, the water along the

surface of the equator collects along the South American coast.

Prediction

The National Oceanic and Atmospheric Administration (NOAA) has a number of **buoys** (BOO-ez) in the Pacific Ocean that measure the wind, temperature and ocean currents near the equator. The information gathered from the buoys is analyzed by computers that were made to predict El Niño. However, even with this special technology, the El Niño weather **phenomenon** (fe-NOM-in-on) is difficult to forecast.

El Niño can occur every two to seven years. It often begins at the end of December in South America, but the effects are felt throughout the world for more than a year afterward. The last time El Niño occurred, which was in 2016, Earth had its hottest year yet.

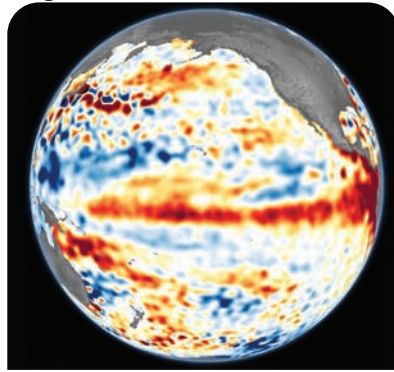


photo courtesy of NASA

Ocean surface height can rise 13 inches above normal in ocean areas during an El Niño since water expands as it warms. This image shows the sea surface height anomaly from June 1-10, 2023. The red shows where the ocean stood higher than normal. Blue shows where the ocean was lower than normal. The white sections are where the ocean was at normal levels.

Effects

In July 2023, 80 million Americans were under excessive heat warnings, which means temperatures were extremely hot.

Scientists also consider El Niño to be responsible for tropical cyclones in the Pacific Ocean,

along with excessive rainfall and flooding around the world.



photo by delipic

NOAA

In June 2023, forecasters released an El Niño advisory, which means that conditions associated with El Niño were present and that the forecasters anticipated El Niño strengthening through the winter.

NOAA says the influence of El Niño in the U.S. is less in the summer and stronger beginning in late fall.

According to NOAA, "By winter, there is an 84% chance of greater than a moderate strength El Niño, and a 56% chance of a strong El Niño developing."

During El Niño winters, the southern part of the U.S. experiences wetter-than-normal conditions. The northern part tends to see warmer and dryer conditions.

Resources



On the Web:

- spaceplace.nasa.gov/el-nino/en/
- bit.ly/MPelnino23

At the library:

- "Meteorology Activity Book" by Jenny Jacoby

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Try 'n' Find

Words that remind us of El Niño are hidden in this puzzle. Some words are hidden backward or diagonally, and some letters are used twice. See if you can find:



BUOYS, CLOUD, CURRENTS, DRY, EARTH, EL NIÑO, EQUATOR, HEAT, OCEAN, PACIFIC, PHENOMENON, SEA, SURFACE, TEMPERATURE, WARM, WEATHER, WET, WIND.

Y W A R M C H Y O L N I C R T
N R O T A U Q E I A E S U E E
C E C A F R U S E K W B R H W
Z L O C I F I C A P U H R T J
C Z O N Z G O E A O T Z E A W
O Y H U I D U H Y R J Y N E I
Q S E A D N T S A L R D T W N
L Q A P N P L E U D W W S L D
H R T Y N O N E M O N E H P S
E R U T A R E P M E T K H U B

Cook's Corner

Strawberry Gelatin Treat

You'll need:

- 1 (6-ounce) package sugar-free gelatin
- 2 cups boiling water
- 1 cup fat-free strawberry yogurt

- 2 cups sliced strawberries
- 1 small banana, sliced



* You'll need an adult's help with this recipe.

What to do:

1. Dissolve gelatin powder in 2 cups boiling water in a heat-safe serving dish. (Do not add additional cold water.)
2. Stir in strawberry yogurt until well-mixed.
3. Add fruit to mixture.
4. Chill for several hours until set. Serves 4.

Mini Jokes



Ezra: What is it called when it rains chickens and ducks?
Eden: Fowl weather!

Eco Note



The World Meteorological Organization said its preliminary analysis of temperatures on July 7 indicates the world hit a record average high that day of 63.03 degrees Fahrenheit. It's the latest sign the climate emergency is already so acute that it is beyond humanity's ability to cope in some cases. The unprecedented heat is being driven by record greenhouse gas emissions and the naturally occurring El Niño ocean warming in the Pacific.

adapted with permission from Earthweek.com

For later:

Look in the newspaper for articles about weather.

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1. Air that is warm, cold, wet, dry, clear, stormy, etc. (7-letter noun)

□ □ □ □ □ □ □

2. To predict after thinking and studying evidence (8-letter verb)

□ □ □ □ □ □ □ □

3. Movement of hot or very warm air that makes temperatures rise (8-letter noun)

□ □ □ □ □ □ □ □

4. Body of saltwater that covers 3/4 of the Earth (5-letter noun)

□ □ □ □ □

1. Sue hopes the _____ clears up; she forgot her umbrella.
2. Did the weatherman _____ a winter with lots of snow?
3. Children ran in sprinklers during the _____ to stay cool.
4. Strong winds over the _____ moved the hot air to the coast.

ROOTONYM®

by Jan & Carey Orr Cook



Study the definition. When you know the missing word, fill in the letter boxes and the sentence blanks.

Answers: Weather, Forecast, Heat wave, Ocean.

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