



# What is pH?

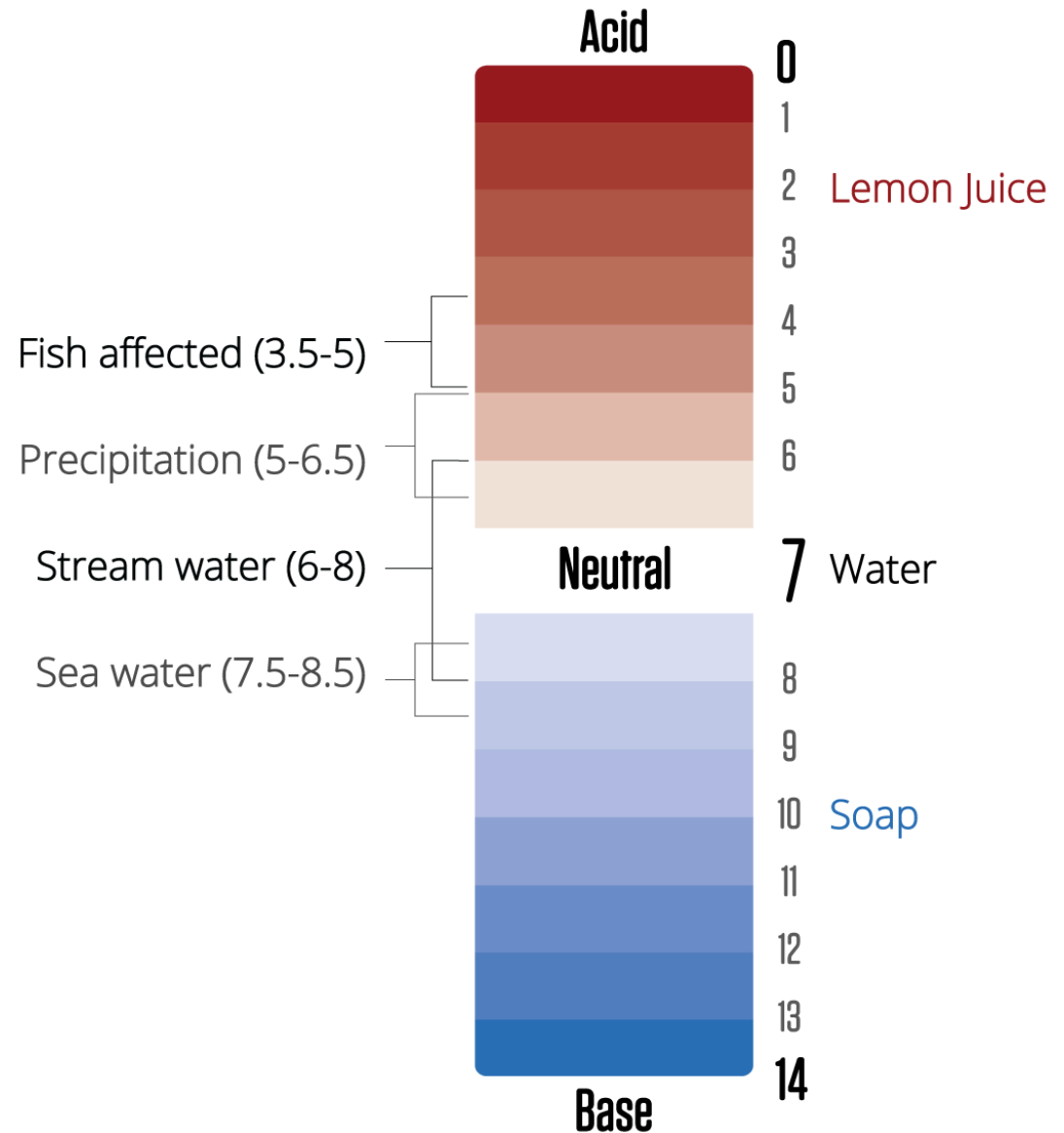
pH, short for “potential of hydrogen”, is the measure of the acidity or alkalinity of water.

## Why is pH important?

pH influences how easily nutrients are available and how easily pollutants dissolve in water. Aquatic life is sensitive to pH changes and needs stable pH to thrive.

## What do the measurements mean?

pH ranges from 0 to 14. It's important to establish a baseline when water testing, as deviations can signal potential issues affecting the water's health. Low pH levels can harm fish gills and reproduction, and dissolve the shells of animals like sea urchins, coral, and sea snails.





## What is conductivity?

Conductivity is water's ability to conduct electricity and measures its ionic content (e.g. chloride, nitrate, sodium, magnesium, calcium, or iron).

## Why is conductivity important?

Every body of water has its own unique conductivity level, based on its bedrock. Some bodies of water have naturally high levels due to their geology and geography.

## What do the measurements mean?

It's important to establish a baseline when water testing. We can use conductivity as an early warning system for potential problems that warrant further testing.

Distilled water	0.5 – 3 $\mu\text{S}$
Melted snow	2 – 42 $\mu\text{S}$
Can effect fish reproduction	over 500 $\mu\text{S}$
Tap water	50 – 800 $\mu\text{S}$
Potable water	30 – 1500 $\mu\text{S}$
Freshwater streams	100 – 1,000 $\mu\text{S}$
Industrial wastewater	10,000 $\mu\text{S}$
Sea water	55,000 $\mu\text{S}$

## What is dissolved oxygen?

The amount of gaseous oxygen dissolved in the water. Oxygen gets into the water through the air, rapidly moving water, and photosynthesis.

## Why is dissolved oxygen important?

Oxygen is what gives the water life! All living things in an aquatic ecosystem need oxygen to survive.

## What do the measurements mean?

Different factors, like water flow, temperature, and depth can influence dissolved oxygen levels. Cold water holds more oxygen than warm water, and oxygen levels decrease with depth in open water bodies. Aquatic plants absorb carbon dioxide and release oxygen, but excessive plant and algal growth can increase decomposing bacteria that consume available oxygen.

