

Does human impact



affect pH levels of water?

By

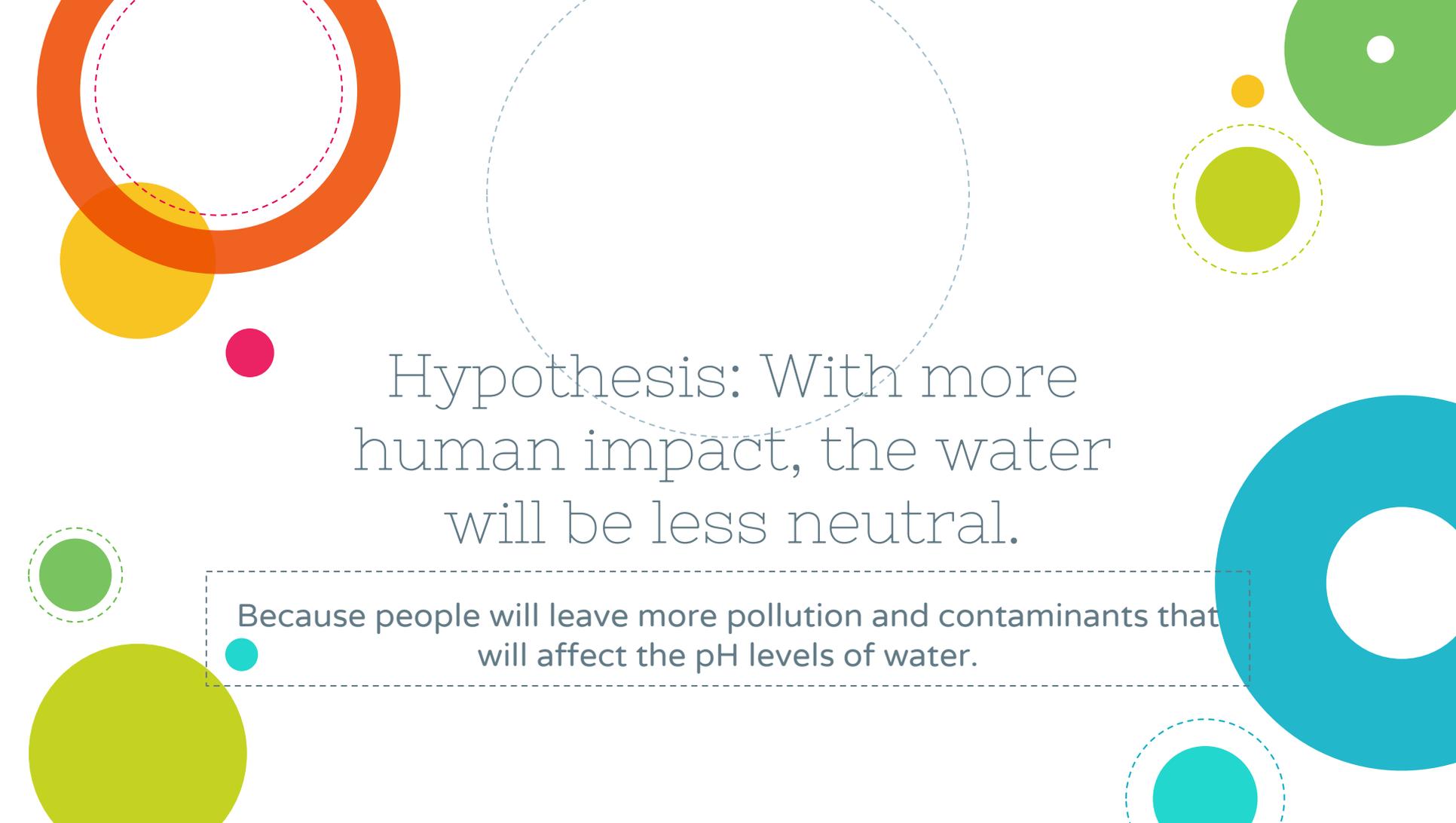


Aidan, Izy, Mia, Jordan,
Phoebe



Introduction

Our project was to test the pH levels of water along the watershed. We started at the ski lifts and worked our way down to 'Sacramento'.



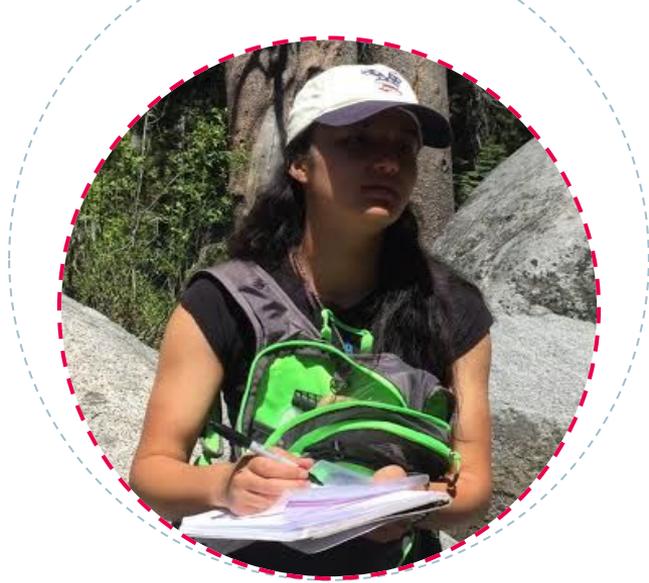
Hypothesis: With more human impact, the water will be less neutral.

Because people will leave more pollution and contaminants that will affect the pH levels of water.

The Materials

- ◎ pH Reader
- ◎ Plastic Bags
- ◎ Measuring Cup
- ◎ Thermometer
- ◎ Test Tubes
- ◎ Wide Range pH Solution





The Process

Gather Samples





Take
temperature



Take
Field Notes



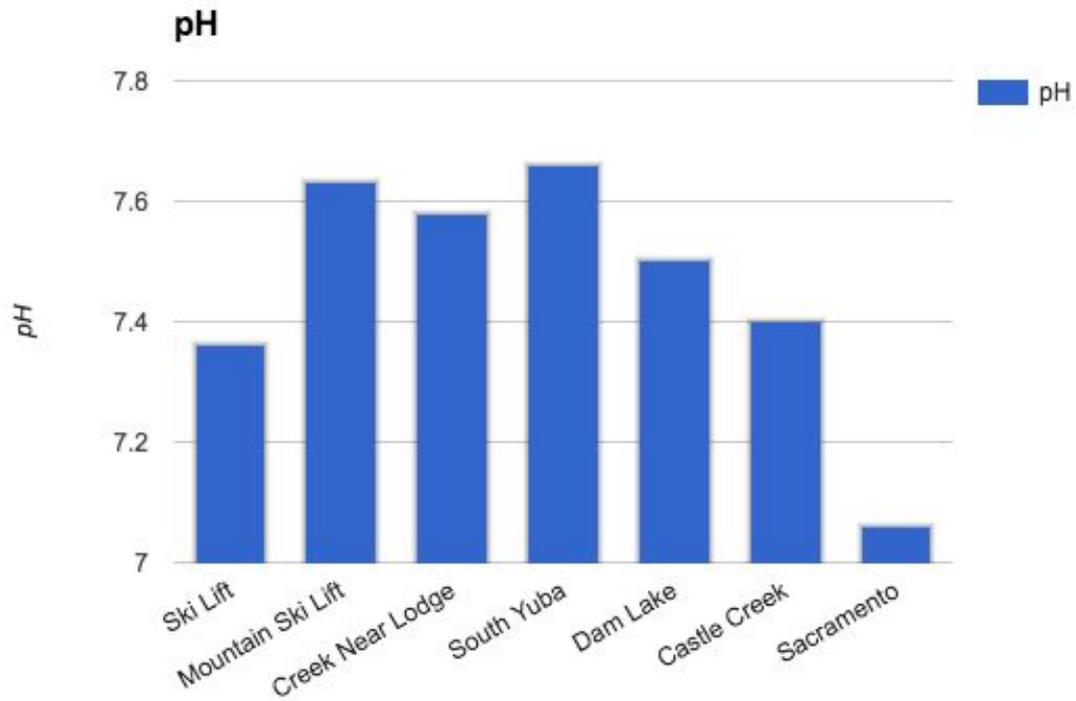
Test
the pH



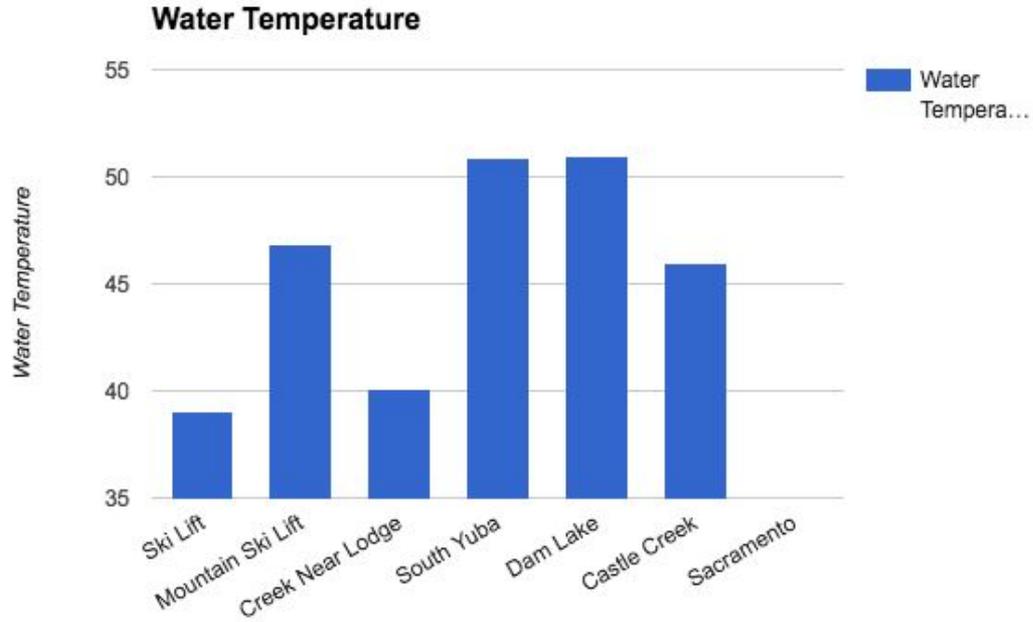
Test
the nutrients

The background features a variety of colorful circles and dashed lines. In the top left, there is a large orange ring with a white center and a dashed red inner circle, overlapping a yellow circle. Below it is a small pink circle. In the top center, a large light blue dashed circle is partially visible. In the top right, there is a green circle with a white center, a small orange circle, and a lime green circle with a dashed yellow border. In the bottom left, there is a small green circle with a dashed white border, a large lime green circle, and a small cyan circle. In the bottom right, there is a large cyan ring with a white center and a cyan circle with a dashed blue border.

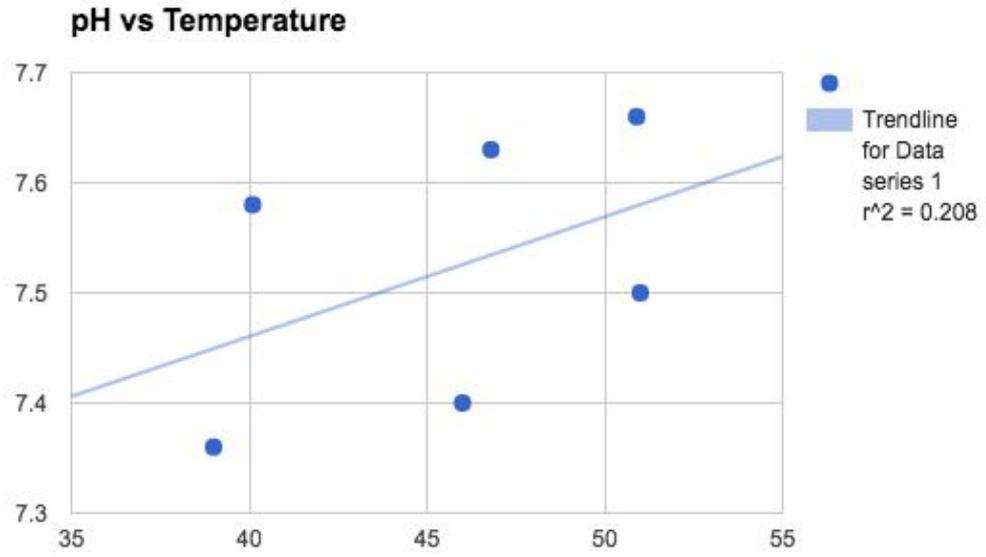
The Results



pH levels of samples we took

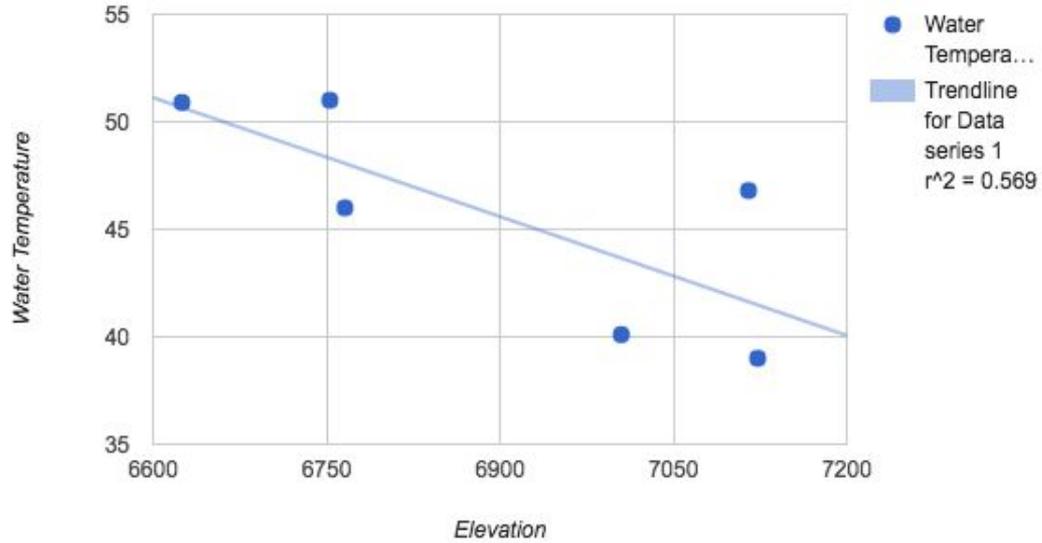


Water temperature of samples we took

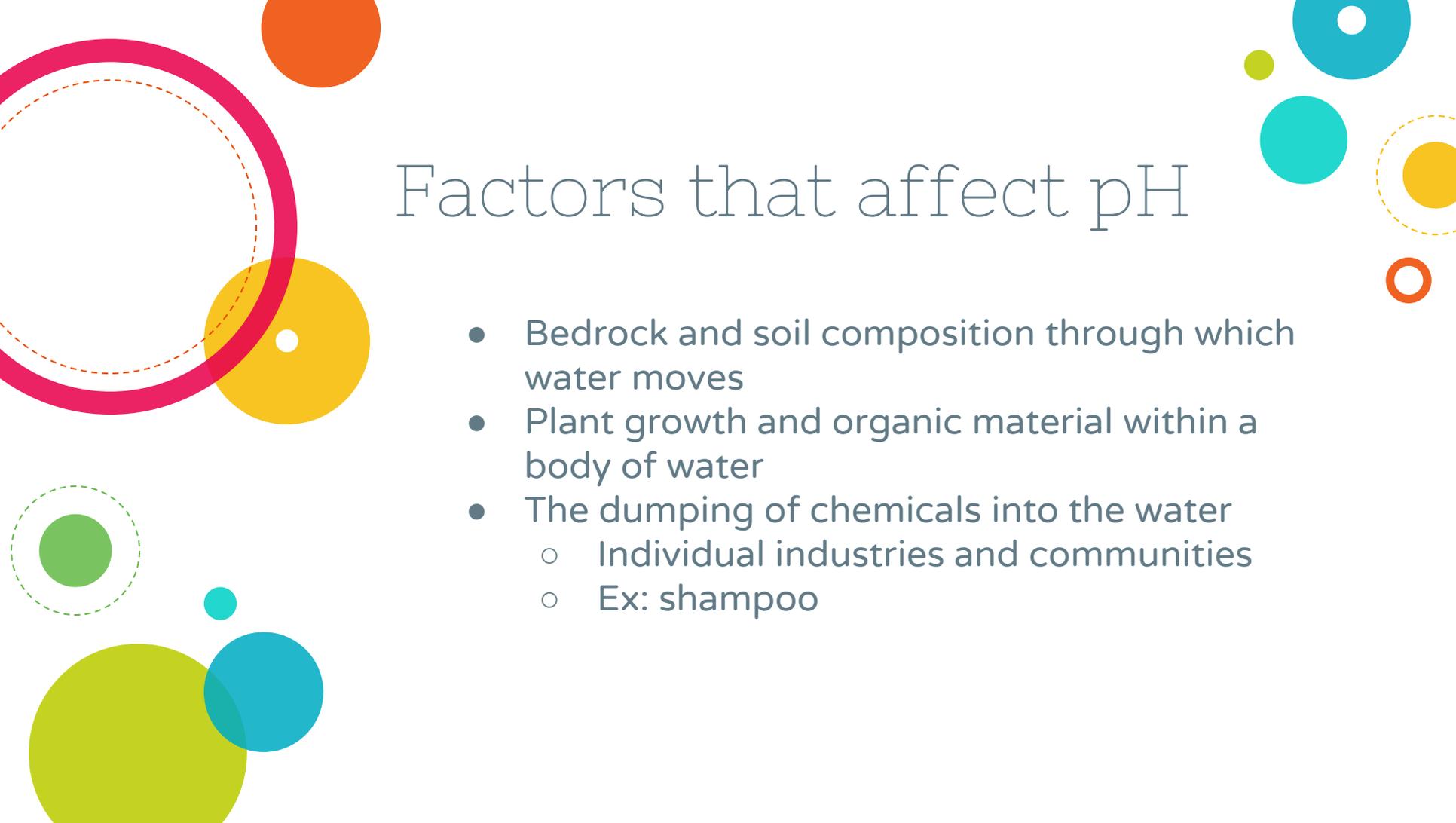


pH levels vs temperature of water samples

Water Temperature vs. Elevation

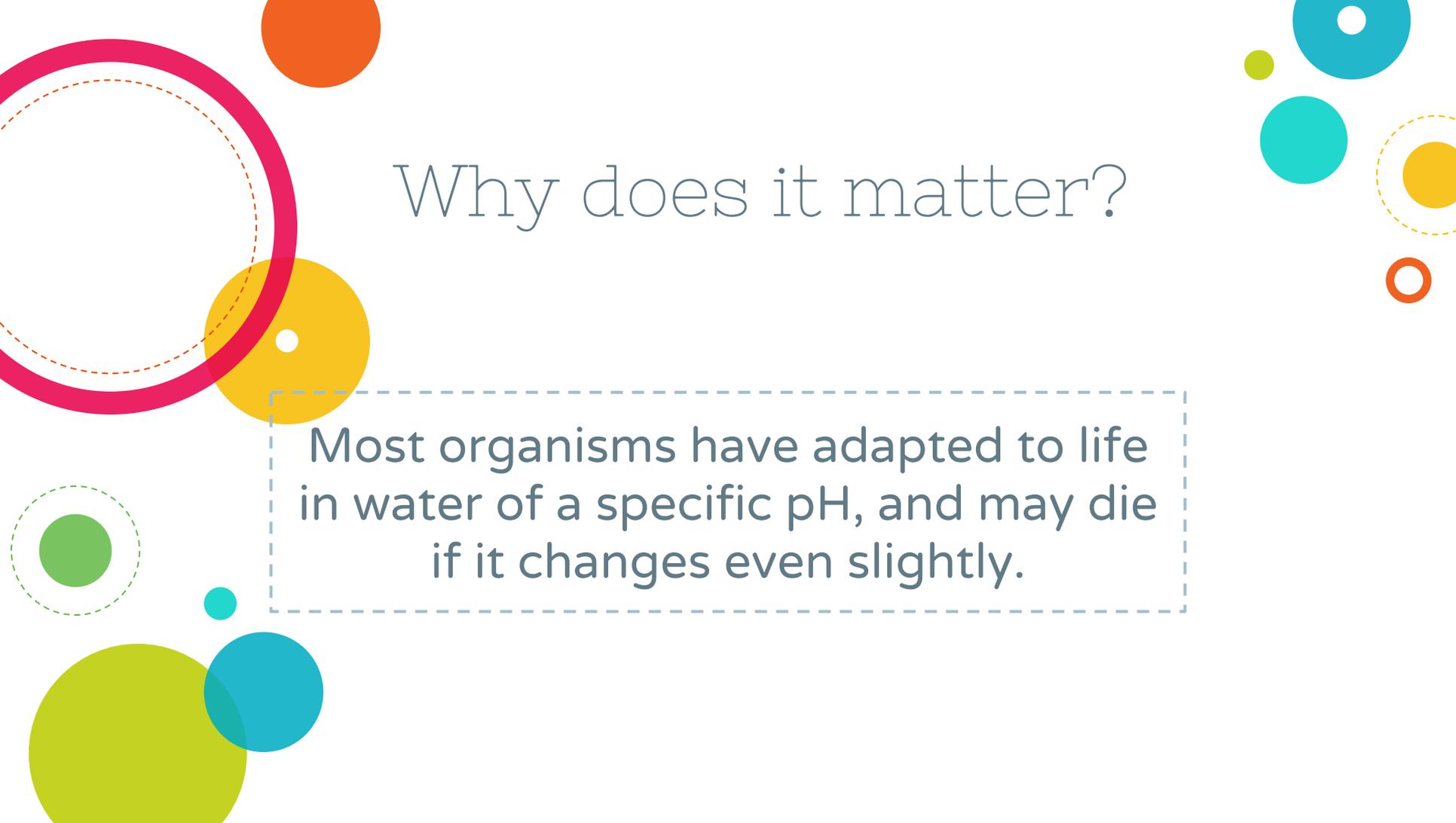


Water temperature vs elevation



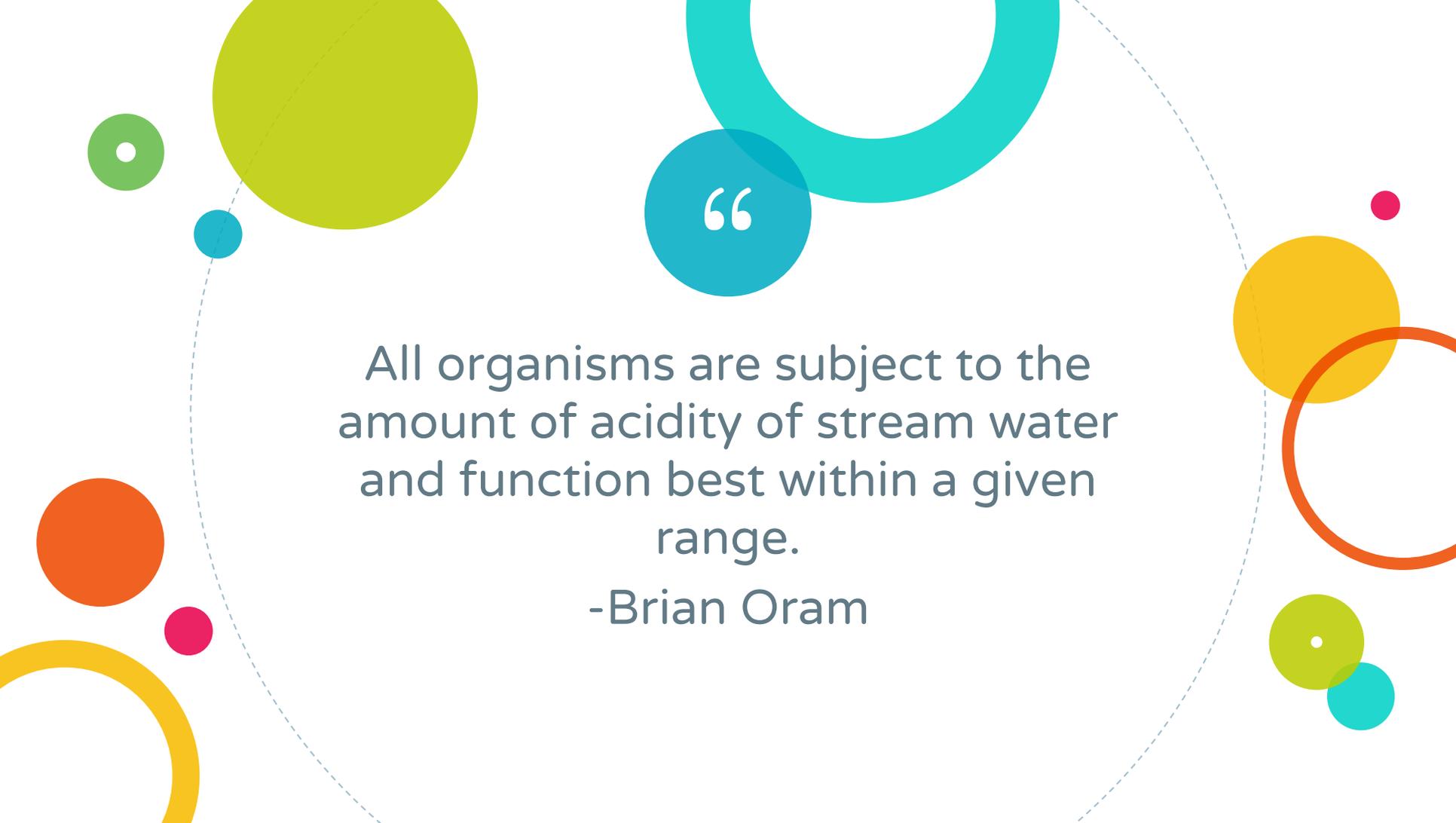
Factors that affect pH

- Bedrock and soil composition through which water moves
- Plant growth and organic material within a body of water
- The dumping of chemicals into the water
 - Individual industries and communities
 - Ex: shampoo

The background features several colorful circles in shades of orange, yellow, green, and blue. Some circles are solid, while others are dashed. A large pink circle with a dashed orange outline is prominent on the left side. The text is centered in a light blue, sans-serif font.

Why does it matter?

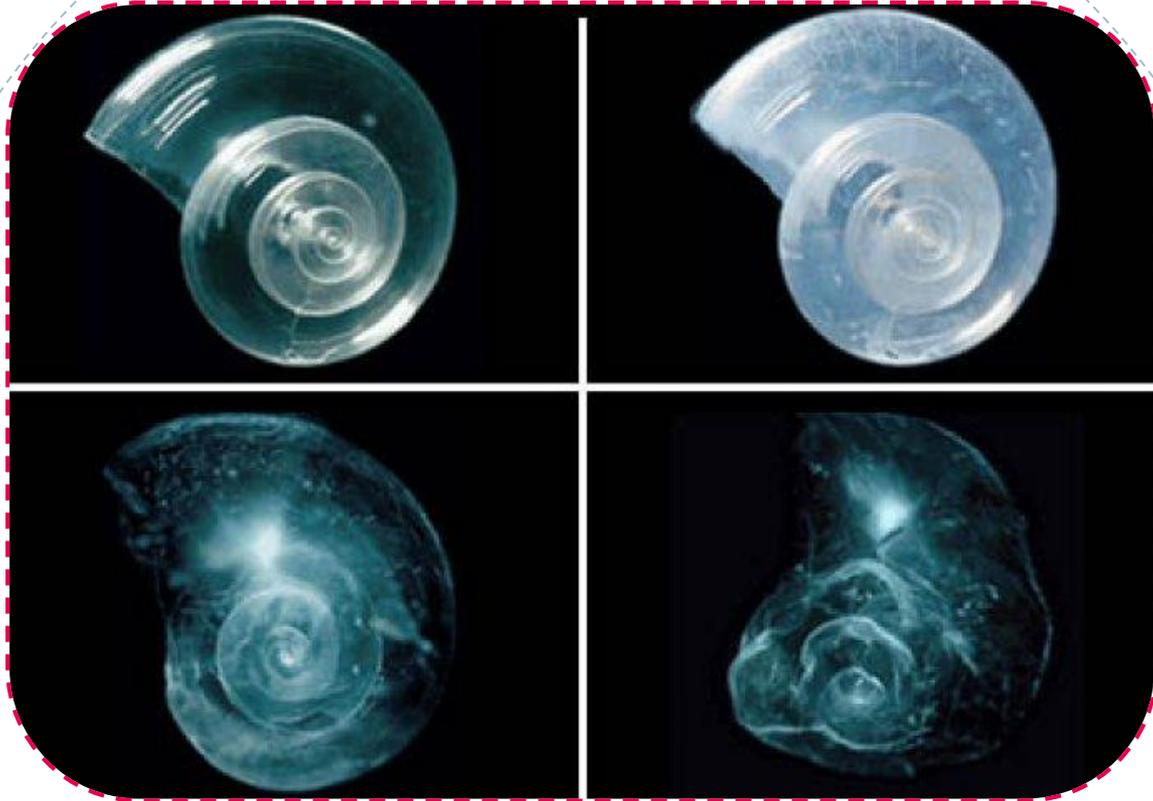
Most organisms have adapted to life in water of a specific pH, and may die if it changes even slightly.

A decorative graphic featuring a large, light blue dashed circle that frames the central text. Various colored circles and arcs are scattered around the perimeter: a large lime green circle at the top left, a teal circle with a white quote mark at the top center, a yellow circle at the top right, an orange circle at the bottom left, and a yellow circle at the bottom right. Smaller circles in green, blue, orange, and pink are also present.

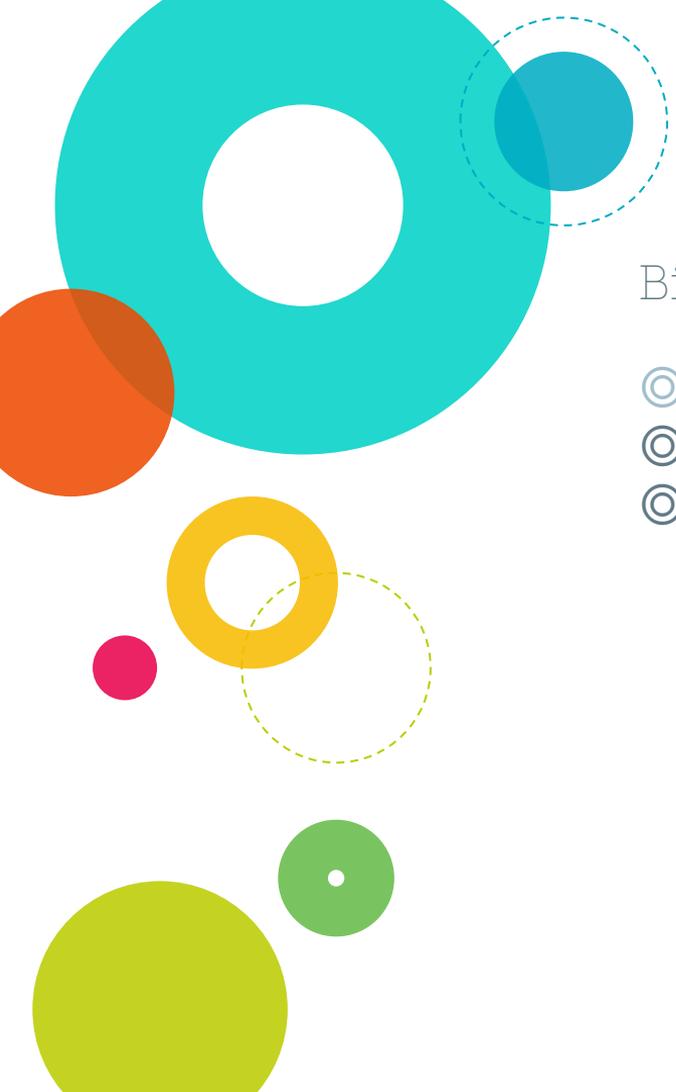
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All organisms are subject to the amount of acidity of stream water and function best within a given range.

-Brian Oram

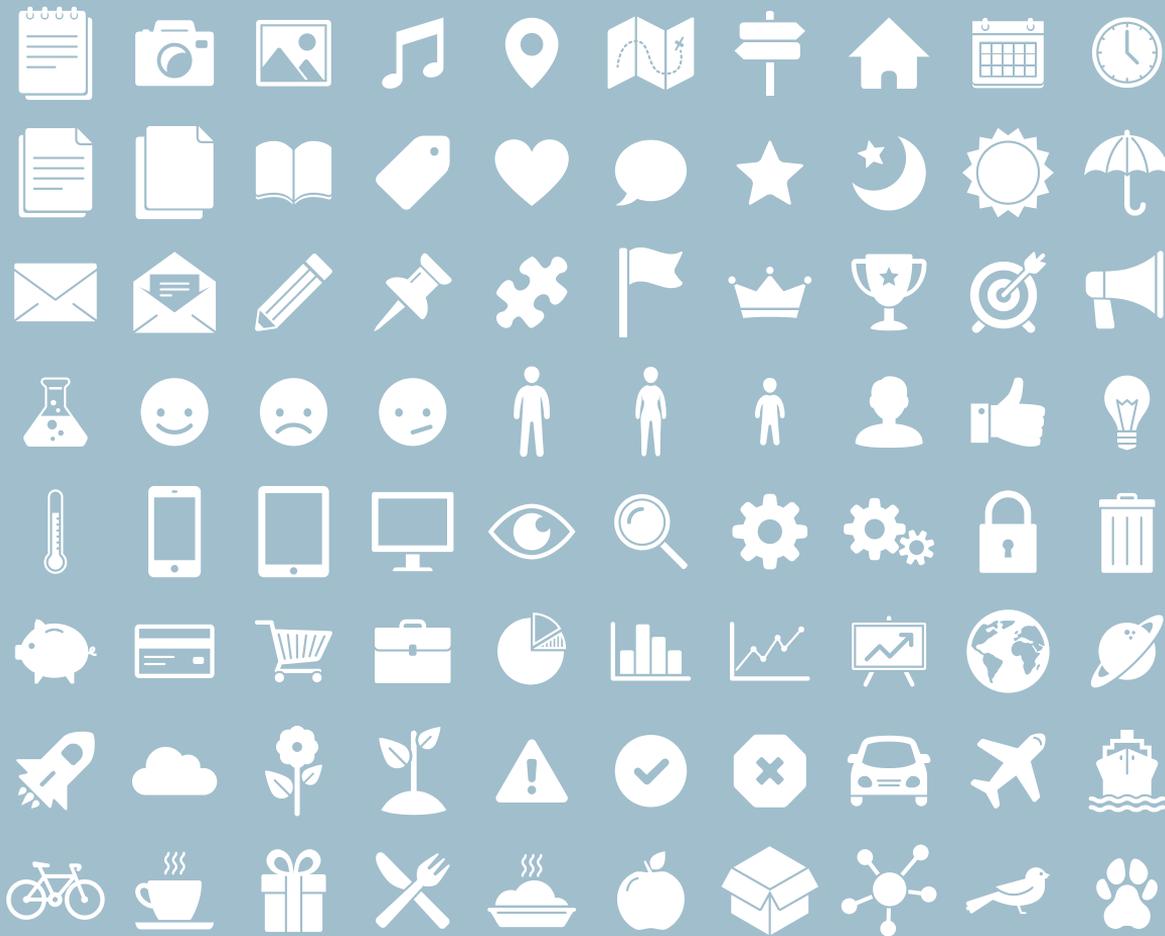


In a lab experiment, this sea butterfly shell placed in acidic seawater dissolved over a period of 45 days.



Bibliography

- © <http://ocean.si.edu/ocean-acidification>
- © Water-research.net
- ©



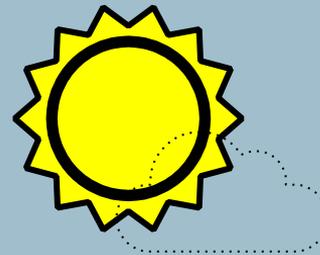
SlidesCarnival icons are editable shapes.

This means that you can:

- Resize them without losing quality.
- Change fill color and opacity.
- Change line color, width and style.

Isn't that nice? :)

Examples:



Water

Temperature

pH

Nitrite

Phosphate

Ammonia

| | | | | | |
|-------------------|------|------|---|------|------|
| Ski Lift | 39 | 7.36 | 0 | 0 | 0.25 |
| Mountain Ski Lift | 46.8 | 7.63 | 0 | 0 | 0.25 |
| Creek Near Lodge | 40.1 | 7.58 | 0 | 0 | 0.25 |
| South Yuba | 50.9 | 7.66 | 0 | 0 | 0.25 |
| Dam Lake | 51 | 7.5 | 0 | 0 | 0.25 |
| Castle Creek | 46 | 7.4 | 0 | 0 | 0.25 |
| Sacramento | | | 0 | 0.25 | 0.25 |