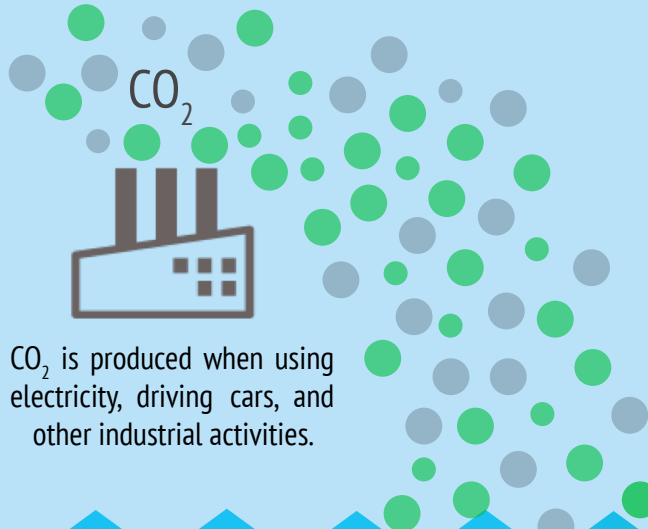


# ACIDIFICATION IN OUR OCEAN

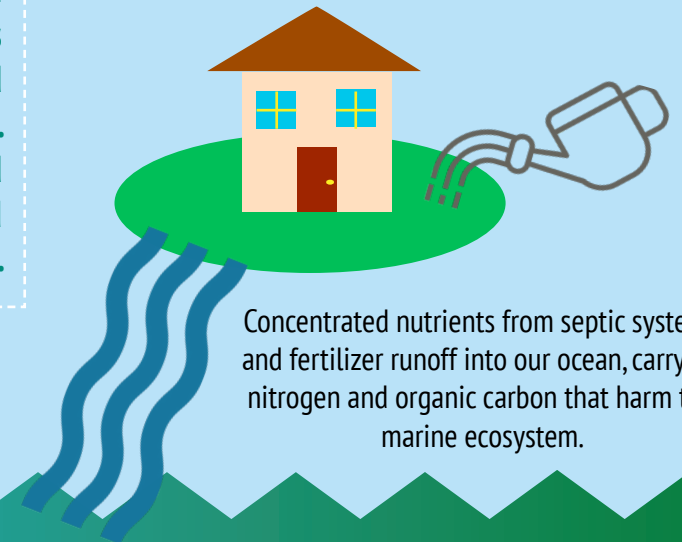
**OCEAN ACIDIFICATION:** Our ocean absorbs excess  $\text{CO}_2$  when we burn fossil fuels to power cars and create electricity. This excess  $\text{CO}_2$  increases acidity in our ocean on a global scale.



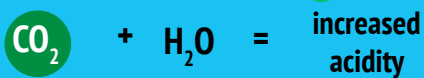
$\text{CO}_2$  is produced when using electricity, driving cars, and other industrial activities.

We, as humans, are deeply connected to our ocean whether we realize it or not. Our ocean regulates climate like the heart regulates blood flow in our bodies. Humidity, rain, and temperature are all controlled by our ocean. Burning fossil fuels adds excess heat and carbon dioxide that disrupt this system and make it harder to maintain a stable climate.

**COASTAL ACIDIFICATION:** Nutrients entering the water from land exacerbates acidification in near shore waters.

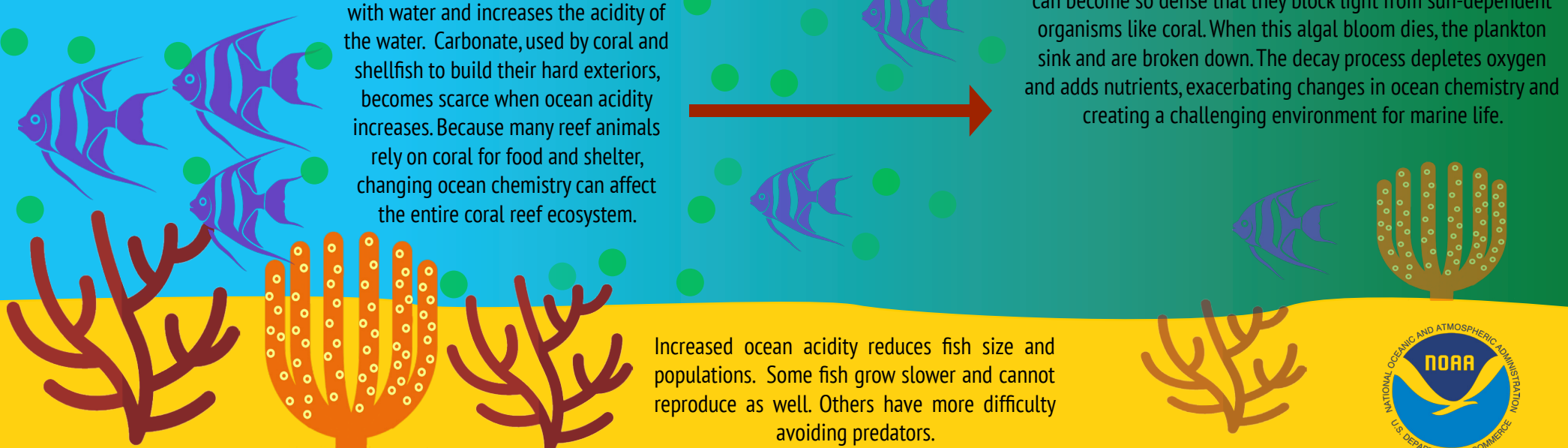


Concentrated nutrients from septic systems and fertilizer runoff into our ocean, carrying nitrogen and organic carbon that harm the marine ecosystem.



The ocean absorbs  $\text{CO}_2$ , which mixes with water and increases the acidity of the water. Carbonate, used by coral and shellfish to build their hard exteriors, becomes scarce when ocean acidity increases. Because many reef animals rely on coral for food and shelter, changing ocean chemistry can affect the entire coral reef ecosystem.

Plankton populations thrive in high nutrient environments and can become so dense that they block light from sun-dependent organisms like coral. When this algal bloom dies, the plankton sink and are broken down. The decay process depletes oxygen and adds nutrients, exacerbating changes in ocean chemistry and creating a challenging environment for marine life.



Increased ocean acidity reduces fish size and populations. Some fish grow slower and cannot reproduce as well. Others have more difficulty avoiding predators.



<https://oceanacidification.noaa.gov/>

## WHAT CAN WE DO TO HELP?



Cut back on watering your lawn or choose drought-tolerant landscaping to reduce runoff into the ocean.



Reduce the use of fertilizers with high nitrogen and phosphorus concentrations.



Eat a plant-rich diet and buy local produce to reduce transportation and production emissions.



Reduce energy use by choosing energy efficient appliances and learn about solar initiatives in your community.