

## How Water and Carbon Dioxide Lead to Ocean Acidification

1.) Print out this worksheet and gather items in your house that are small and different colors. You will need three different colored items. If you want to take this activity a step further, you will also need tooth picks or wooden skewers.

**Example: cut fruit, candy, veggies, colored paper, starburst**

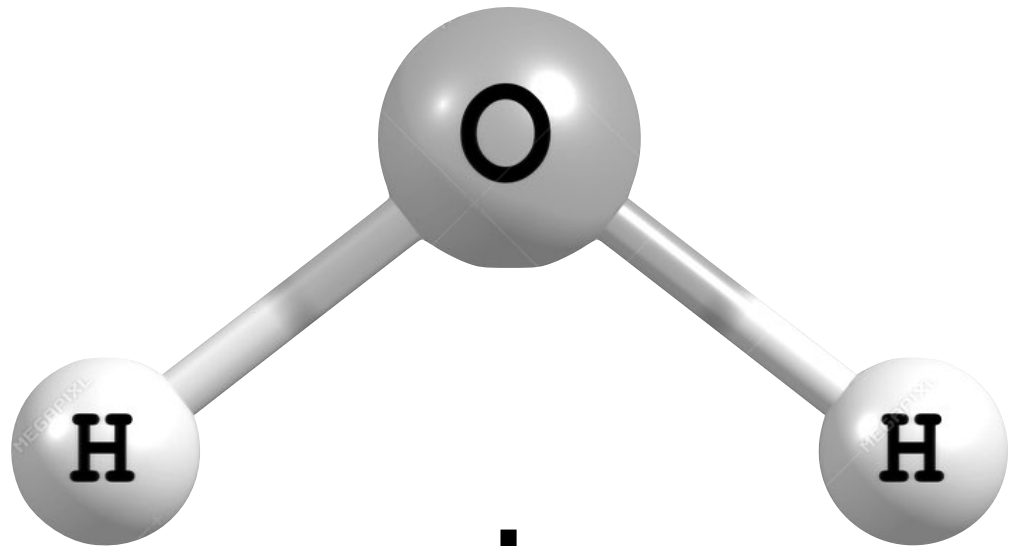
2.) Designate your food to the periodic elements, Hydrogen, Oxygen, and Carbon

**Example: Hydrogen = Cut bananas**

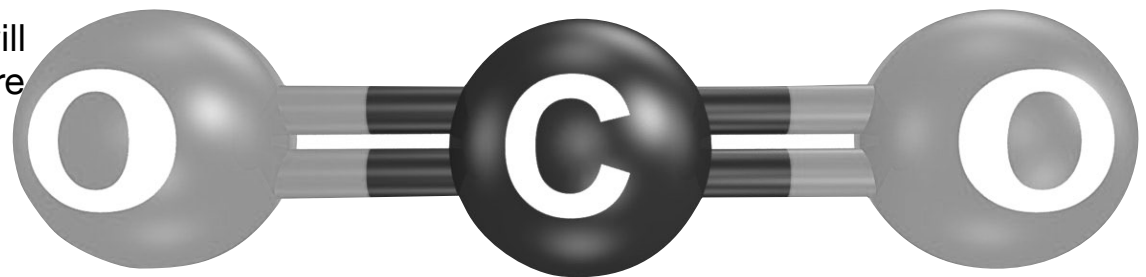
**Oxygen = Grapes**

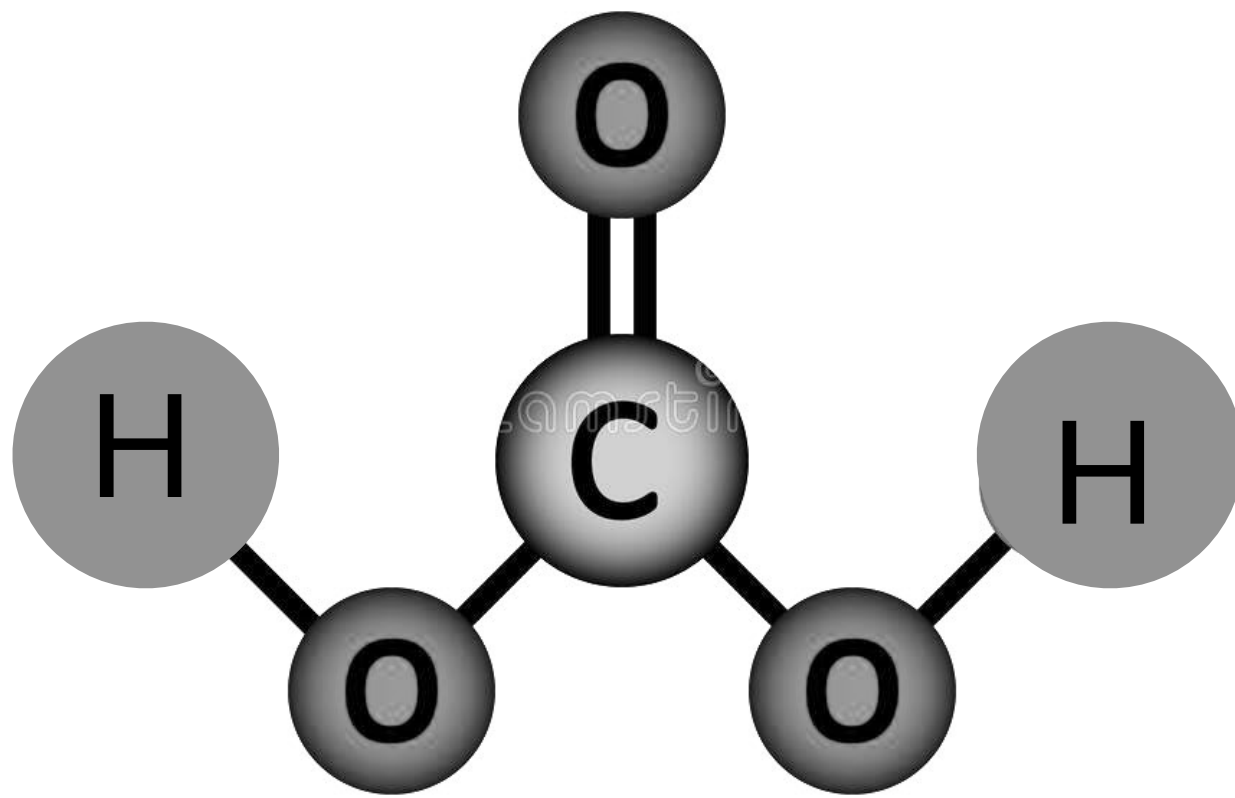
**Carbon= Strawberries**

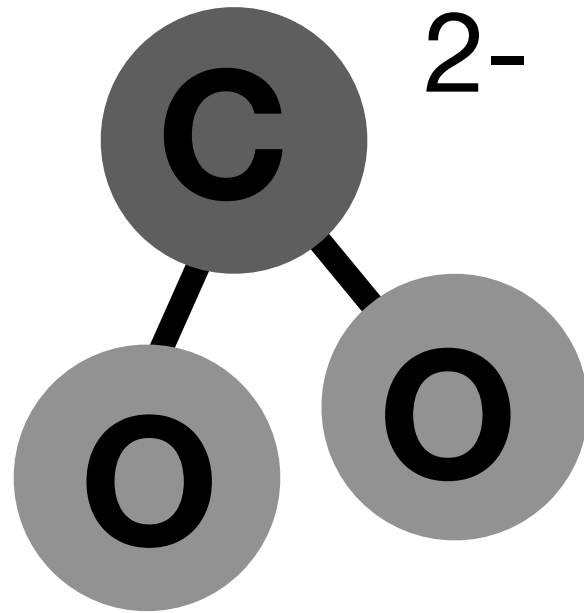
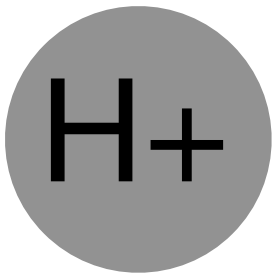
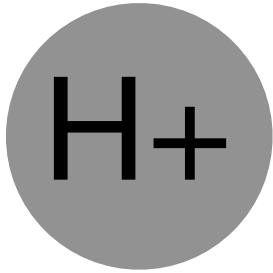
3.) Now, using your colored items, we are going to work together to show how our “elements” form molecules and ions that will eventually cause our ocean to become more acidic. We will work on this activity during the video.



+







### Follow up questions:

What is an element?

Elements are chemically the simplest substances and hence cannot be broken down using chemical reactions. Elements can only be changed into other elements using nuclear methods.

What is a molecule?

A **molecule** is formed when two or more atoms of an element chemically join together.

What is a greenhouse gas?

**Greenhouse gases** are gases in Earth's atmosphere that trap heat.

What causes the ocean to become too acidic?

Carbon is a greenhouse gas that can sink back into the ocean causing the ocean to become too acidic. Carbon and H<sub>2</sub>O (water) can break down to form Hydrogen Ions. Hydrogen Ions cause oceans to gain acidity.

What are some things we can do to slowly lower the acidity of the ocean?

Reduce our carbon footprint!