



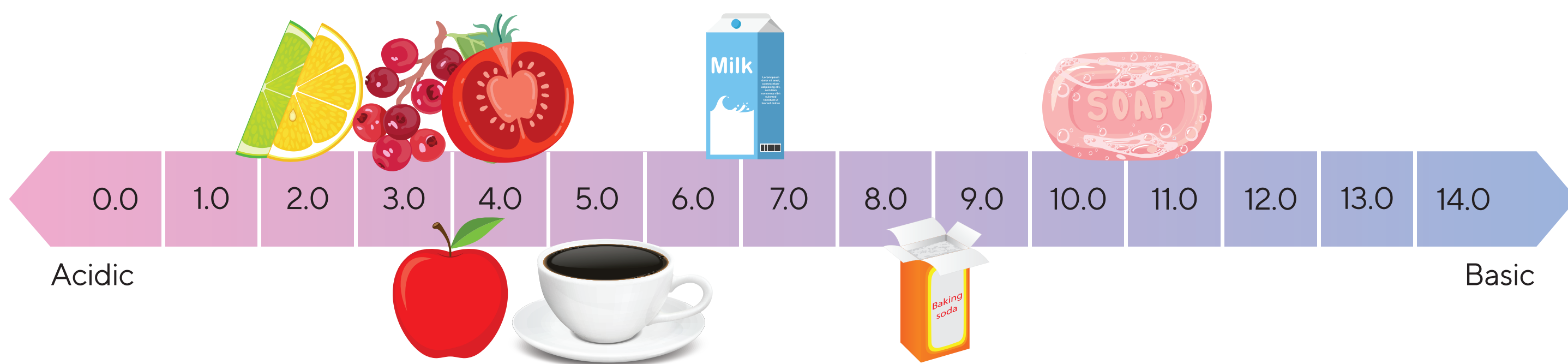
THE SCIENCE BEHIND Cranberries



Why do cranberries thicken when heated in water?

Cranberries are high in pectin, which is a polymer commonly found in plant cell walls. Liquid and powdered pectin can be added to jam and jelly recipes as a thickening agent. However, cranberries are already high in pectin and will gel during the cooking process without additional pectin. Cranberries are also acidic and contain sugar. When the cranberries are heated, the berries begin to break down and pop open. The pectin is then released and reacts with the sugar and juices to form long polymers and thicken the sauce. This process creates the cranberry sauces and jellies which are so familiar at holiday dinners.

Where Do Foods Fall on the The pH Scale?

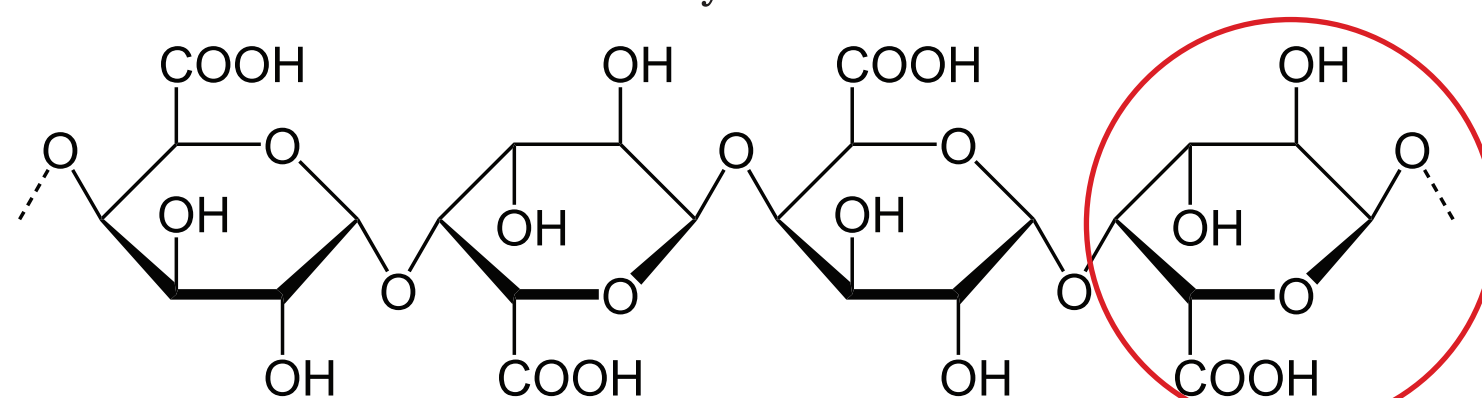


INTERESTING FACTS ABOUT CRANBERRIES

- 1 In the United States, over 5 million gallons of jellied cranberry sauce are consumed each holiday season.
- 2 The first canned cranberry sauce was made in 1912. Canned cranberries at the grocery store did not become commonplace until the 1940's.
- 3 While cranberries are native to North America, they were most likely not served as a cranberry sauce at the first Thanksgiving. Documentation found on the first Thanksgiving's meal includes corn, waterfowl, and venison.
- 4 Cranberries can be harvested dry or wet. Most cranberries are harvested wet, by flooding the fields. Then a machine goes through stirring the water and freeing the berries. The cranberries are less dense than water, so they float when dislodged from the plant.

PECTIN

Polymer



Pectin is found in plant cell walls and in between cells. Pectin, along with cellulose, provides support for the plant.

Monomer
(C₆H₁₀O₇)

