



Exploring Food Science – What's on Your Plate?

Heat It and Eat It

The Science of Cooking Vegetables

Activity 3.2 Glossary

Acid	A chemical substance with a pH of less than 7. Acids generally taste sour and include food ingredients such as vinegar and citrus juices.
Alkali/Base	A chemical substance with a pH more than 7. Baking soda is an example of an alkaline food ingredient.
Anthocyanin (an-thuh-sahy-uh-nin)	Highly water soluble pigment that is blue-violet or red depending on pH levels.
Beta-carotene (bey-tuh kar-uh-teen)	A pigment in orange, red, yellow produce, and in dark green veggies (hidden beneath the green chlorophyll). It is an antioxidant which protects cells. The body turns it into vitamin A.
Blanching	Blanching is a cooking process in which vegetables are placed in boiling water for a short time period and then placed in ice water. This process precedes freezing to maintain color, flavor, and texture.
Carotenes	A natural pigment in vegetables and fruit that is orange to red. It is a plant source of vitamin A for humans.
Chlorophyll	A natural pigment in vegetables and fruit that is green in color. It is this pigment that captures the light energy required for photosynthesis.
Flavonoids (fley-vuh-noid)	Any of a large group of water-soluble plant pigments that are beneficial to health. Flavonoids are polyphenols and have antioxidant, anti-inflammatory, and antiviral properties. They also help to maintain the health of small blood vessels and connective tissue, and some are under study as possible treatments of cancer. Also called <i>bioflavonoid</i> .
pH	A measurement of acidity or alkalinity. Pure water has a pH of 7 which is considered neutral. Acids have a pH of 1 to 6.9. Bases (alkaline) have pH of 7.1 to 14. Most public water supplies have a slightly alkaline pH.
Phytonutrient (fahy-tuh-noo-tree-uh nt)	Naturally occurring chemical compounds in plants; beneficial to human health. Phytonutrients are pigments.
Pigment	A natural substance in vegetables and fruit; provides color to plants and many are beneficial to human health.
Vitamin A	An essential nutrient for human health. Supports growth, reproduction, healthy skin and mucus membranes. Promotes good vision in low light.



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Vitamin C

A essential nutrient for human health. Vitamin C strengthens tissues, such as bones, tendons and muscles. It helps with wound healing and immune function. It also helps humans absorb iron when eaten with iron-rich foods. Vitamin C is abundant in fruits and vegetables, especially citrus fruits and vegetables in the cruciferous (cabbage) family such as cauliflower, broccoli and cabbage.

Sources: Encarta English Dictionary and www.Dictionary.com