

NUTRIENTS FOR LIFE

Humans and plants need many of the same nutrients to grow big and strong. Humans need a variety of proteins, carbohydrates, minerals, and vitamins to stay healthy. Besides the primary nutrients NPK, plants need small amounts of secondary nutrients, such as calcium and sulfur, and micronutrients, like iron and zinc.

107	6	7	8	9	10
	N	O	F	Ne	
	Nitrogen	Oxygen	Fluorine	Neon	
	14.0067	15.9994	18.998403	20.1797	
	1402.3	3.04	1313.9	3.44	
	1st 2s ² 2p ³	1st 2s ² 2p ⁴	1st 2s ² 2p ⁵	1st 2s ² 2p ⁶	
5	14	15	16	17	18
P	S	Cl	Ar		
Phosphorus	Sulfur	Chlorine	Argon		
30.97376	32.06	35.45	39.948		
32	33	34	35	36	
As	Se	Br	Kr		
Arsenic	Selenium	Bromine	Krypton		
74.9216	78.96	79.904	83.80		
4d ¹⁰ 5s ² 5p ³	4d ¹⁰ 5s ² 5p ⁴	4d ¹⁰ 5s ² 5p ⁵	4d ¹⁰ 5s ² 5p ⁶		

N
NITROGEN EQUALS STRONG PLANTS
Nitrogen makes plants grow strong and healthy.

P
PHOSPHORUS MOVES ENERGY
Phosphorus helps plants with photosynthesis. It stores and moves energy around the plant.

K
WATER IS POTASSIUM'S FRIEND
Potassium helps plants control and use water efficiently.

NUTRIENTS COME FROM THE SOIL THAT HELP THE PLANT GROW AND PRODUCE FOOD



NUTRIENTS COME FROM FOOD GROWN IN THE SOIL

K
POTASSIUM HELPS THE HEART
Humans need potassium, like plants do. Potassium helps control muscles and the rhythm of the heart.

Fe
IRON HELPS MOVE OXYGEN
Iron helps the body make hemoglobin that moves oxygen and hemoglobin through the blood. This is similar to phosphorus moving energy around the plant.

Ca
CALCIUM EQUALS STRONG BONES
Calcium helps humans have strong bones, like nitrogen helps plants have strong stalks.

39.0983	19	40.078	20	44.95591	21	47.867	22	50.9415	23	51.9962	24
K	Ca	Sc	Ti	V	Cr						
Potassium	Calcium	Scandium	Titanium	Vanadium	Chromium						
418.8	58.93	44.96	47.88	50.94	51.99						
4s ¹	4s ²	3d ¹ 4s ²	3d ² 4s ²	3d ³ 4s ²	3d ⁵ 4s ¹						