Symbol:

Atomic Number:

Atomic Mass:

Valence Electrons:

Bio:

Hydrogen

Symbol: H

Atomic Number: 1

Atomic Mass:1.008

Valence Electrons:1

Bio:Hydrogen is the star of the show when it comes to elements. Being the first in the whole periodic table has its perks one of which is being the most common element in the universe. Hydrogen is found in many things from the Sun and all the stars from the planets Jupiter and Saturn. Hydrogen is also found in Water in fact the name Hydrogen means “Water Former” in greek. Hydrogen is also found in almost every type of fuel source and is readily used in combustion because its highly reactive!

Helium

Symbol:He

Atomic Number:2

Atomic Mass:4.002

Valence Electrons:2

Bio:Helium is famous for two things funny high pitch voices and baloons! Helium is the first of the Noble gasses and suitably is named after the greek god of the Sun. Helium is unique as a nobel gas in that it has only two valence electrons this is more than enough for helium to be remarkably stable and not react to anything. Helium the than being used to fill up balloons helium is also used for cryogenics and super conductors so it’s capable of more then funny voices.

Lithium

Symbol:Li

Atomic Number:3

Atomic Mass:6.938

Valence Electrons:1

Bio:The first metal and solid in the whole periodic table Lithium is the lightest metal in existence which you wouldn’t expect from something who’s name comes from the greek word for stone. But just being the smallest metal doesn’t mean it doesn’t have attitude. It sets the scale for the rest of the alkali metals by being extremely reactive! But just because Lithium has a bit of a temper doesn’t mean it can’t help out. Lithium is used in ceramics, steel and aluminum production and most commonly batteries!

Beryllium

Symbol:Be

Atomic Number:4

Atomic Mass:9.012

Valence Electrons:2

Bio:Beryllium is a little on the rare side with it not being that common but just because it isn’t around all the time doesn’t mean it’s not capable of amazing things. With a name shrouded in mystery ranting from Latin and Greek to Prakrit and Pali usually meaning “to become pale”.  Beryllium is commonly used in special copper alloys that make incredibly strong metals but is also sought after for space craft construction as well as scientific experiments that involve radiation even going to the beauty that is emeralds all because of Beryllium.

Boron

Symbol:B

Atomic Number:5

Atomic Mass:10.806

Valence Electrons:3

Bio: Boron is the first metalloid on the periodic table meaning it works a bit like a metal and a bit as a non metal. To add to the special nature of Boron it’s also not found commonly on earth as pure Boron which usually only comes in on meteorites. Infant it is rare enough on earth that the name Boron is derived from Borax which is a Carbon mineral that looks a lot like Boron. Boron finds it’s use in nuclear tests, flares, detergent and some magnets and many more. Boron even had a very key role in the ignition systems on the Saturn V rockets that went to the moon because it just really wants to go back to space.

Carbon

Symbol:C

Atomic Number:6

Atomic Mass:12.009

Valence Electrons:4

Bio: Carbon is responsible for some amazing things and is the common element of life. With a name that stems from the Latin word Carbo for coal carbon is part of way more than coal. Other than being the key part of all fuels carbon is in pencils and in all kinds of polymers to diamonds to space age nano tubes. Carbon is incredibly versatile and is the reason the world and life works the way it does. You really can’t go far without encountering anything that is part carbon.

Nitrogen

Symbol:N

Atomic Number:7

Atomic Mass:14.006

Valence Electrons:5

Bio: Nitrogen is all around you and intact is the most common element in the air you breath and it derives its name from the greek word “to choke” because of its asphyxiating properties in large quantities. But don’t let that scare you nitrogen is key in the forming of amino acids and proteins and DNA too kind of important. Nitrogens other uses include freezing things when its liquid and being a big part of fertilizer for plants as well as the manufacture of steel , lighting and the propellant in paintball guns.

Oxygen

Symbol:O

Atomic Number:8

Atomic Mass:15.999

Valence Electrons:6

Bio:Oxygen the thing you breathe the third dos abundant thing in the universe and one of the key elements in the maintenance of life. The name for oxygen comes from the greek word for “acid” Oxys and the greek word for generation “genes”. This was because at the time of its discovers as a distance element it was thought oxygen was a key ingredient of all acids. Oxygen other than sustaining you as you read this right now is used in almost everything ranging from heating to engines, production of most things industrially, rocket propellant and medical uses are also abundant as well as the important bit of the ;life support systems in planes spacecraft and submarines.

Florine

Symbol:F

Atomic Number:9

Atomic Mass:18.998

Valence Electrons:7

Bio:Florine is extremely reactive and is always willing to freak out with anything. With a name that comes from the latin word for “flow” which is derived form it’s original use of reducing the melting point of metals to allow easier smelting. Florine has found a series of other applications other than metal works. Examples such as teflon coating in cookware or tooth paste because it helps kill cavities, with the most notable use of the element being in uranium enrichment for the Manhattan project, to natural poisons that plants will emit to deter predators. Fluorine has several uses and shouldn’t be feared just because it is a bit on the dangerous side.

Neon

Symbol:Ne

Atomic Number:10

Atomic Mass:20.179

Valence Electrons:8

Bio: Neon most famous for its appearance in tacky lighting in las Vegas and for an element that puts on such a light show it is incredibly inert. Neon has it’s name derived from the greek word for “new” because discovered relatively late when it comes to elements being discovered alongside Krypton and Xenon way after most of the periodic table had been laid out. Neons uses other than lighting tends to be use in vacuum tubes and high voltage indicators. The reason no wide spread usage of neon is applied is it’s complete rarity which makes it just so much easier to use Helium instead.

Sodium

Symbol:Na

Atomic Number:11

Atomic Mass:22.989

Valence Electrons:1

Bio: Sodium is another alkali metal and this will become a reoccurring pattern of alkali metals becoming more and more extra when it comes to being reactive. But other than smoking and freaking out in water sodium is most commonly used in salt. The Na symbol might be confusing but it is derived from the latin word for the element Natrium so don’t let the symbol confuse you! It’s name is thought to have been derived from the Arabic word suda which means headache because sodium was commonly used as a headache relief agent in medieval times. Other uses for sodium other than biological uses include the making of soap, de-icing agent as well as manufacture of titanium alloys.

Magnesium

Symbol:Mg

Atomic Number:12

Atomic Mass:24.304

Valence Electrons:2

Bio: Magnesium is a silvery grey alkaline earth metal that is highly reactive although it reacts fast enough that it is covered by a thin layer of oxide stoping it from rusting out of control. But when pushed Magnesium gets rather fiesta known for being highly flammable which is really difficult to stop because it is able to combust both nitrogen and carbon dioxide. But other than that magnesium is found in certain automotive parts, sharpeners, aircraft parts and commonly found in batteries. Just be careful when dealing with Magnesium to avoid a burn!

Aluminium

Symbol:Al

Atomic Number:13

Atomic Mass:26.981

Valence Electrons:3

Bio: CAN you believe how light this metal is!? Aluminum is remarkable for its low density and corrosion resistance which makes it extremely popular in the aerospace industry which allows remarkably light air frames allowing planes to do what they do and fly. The name Aluminum is derived that it was first discovered through Alum which is a type of salt. For the longest time aluminum was incredibly rare because its extraction was ridiculously difficult and until a new manner of production was created it could only be done by mixing alum with specific acids. Most commonly used in the aerospace industry but is also commonly used to store drinks in can shapes so you can take your drinks to go.

Silicon

Symbol:Si

Atomic Number:14

Atomic Mass:28.084

Valence Electrons:4

Bio: Silicon is rarely ever seen on its own and is commonly found in weird mineral chains such as sand or stones. Usually the part of porcelain and ceramics or quartz and amethyst silicon is more commonly found in these states since it has such a love for Oxygen so oxidizes really easily. The name silicon is derived from the Latin word silex meaning flint. Silicon is used in several metal forging processes and has a place when it comes to electrical components but commonly is seen as mineral stones like Quartz and Onyx.

Phosphorous

Symbol:P

Atomic Number:15

Atomic Mass:30.973

Valence Electrons:5

Bio: Phosphorous is highly reactive and earns its name for its reactivity. The name comes form the greek word for “light bearer” because of how phosphorous glows. It glows by just constantly reacting with oxygen but do not let the in game depiction fool you phosphorous can also be found as a red compound. Phosphorus has many applications that range in use from fertilizer to matches to some metal smithing purposes to smoke grenades.

Sulfur

Symbol:S

Atomic Number:16

Atomic Mass:32.059

Valence Electrons:6

Bio: With a symbol S for smelly for how horribly bad the element smells. Not only does it smell horrible sulfur is one of the few elements that are yellow on its own. But sulfur bonds with many things which allow really strange chemical soups to appear. Sulfur has a knack for becoming beautiful as its the main component in the formation of the blue mineral Lapus Lazuli but is also key in compounds such as sulfuric acid. But it’s uses are long reaching and most societies throughout history have made use of the element and you can find old alchemical symbols for Sulfur. So sulfur has quite a long history with people.

Chlorine

Symbol:Cl

Atomic Number:17

Atomic Mass:35.446

Valence Electrons:7

Bio: Chlorine is commonly known for two things, being the second element in the creation of salt and cleaning everyones pools. Being a pale green gas on its own its name is from the ancient greek word for “pale-green”. Chlorine like the other halogens are extremely reactive just about to reach that solid 8 octet rule so it gets rather dangerous. Infant other than cleaning pools and other sanitation purposes the first common use of Chlorine was as a weapon in the first world war so this one is quite a bit of a double edge sword.

Argon

Symbol:Ar

Atomic Number:18

Atomic Mass:39.948

Valence Electrons:8

Bio:Another nobel gas that does not react to anything!. Argon’s name is intact derived from the greek word for “lazy” which just goes to show just how much the nobel gasses care about the things around them. Argon has a use in lighting like neon and glows purple under a high electrical current but has a few other uses. Argon earning its nobel ties can be used in wine making to keep oxygen out of the bottles, special cry surgeries to combat cancer and arc welding. So it may be a lazy gas but when willing it can do something useful every once in a while.

Potassium

Symbol:K

Atomic Number:19

Atomic Mass:39.098

Valence Electrons:1

Bio: Potassium is  more reactive alkali metal which starts getting into the really hating water phase of the alkali metals but other than hating water potassium is most commonly found in Bananas so other than being a reactive metal its also essentially a fruit. The name Potassium comes from the word “potash” which is named for the extraction method of various salts but the K comes from the latin word “kalium” so yeah try not to get confused. Potassium is really important for your health and has a very important role in making sure your cells work properly. Potassium is also used in fertilizers and baking powder. So this little element comes in many forms and has many everyday uses!

Calcium

Symbol:CA

Atomic Number:20

Atomic Mass:40.078

Valence Electrons:2

Bio:Calcium is a weird one because very few people associate it with a metal it’s mostly bones and milk but Calcium is indeed a metal. The name Calcium is derived from the latin word “calx” which means lime because metallic calcium is extracted from limestone. Which you can see very old examples of with limestone statues being prominent in some ancient societies.  But calcium has many other roles other than being part of the delicious mix that is milk and cheese. Calcium is used in steel making since calcium bonds easily to sulfur which is used to remove sulfur from steel. So get some Calcium make your bones stronger than steel!