





The moon is the Earth's only

11 Na Sodium 22.99	85 At Astatine (210)	92 U Uranium 238.0	88 Ra Radium (226)	3 Li Lithium 6.938
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satellite and was formed 4.6 billion years

47 Ag Silver 107.9	8 O Oxygen 16.00
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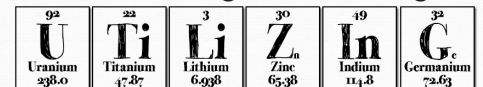


The impulse engines masterfully used on Star Trek were based on

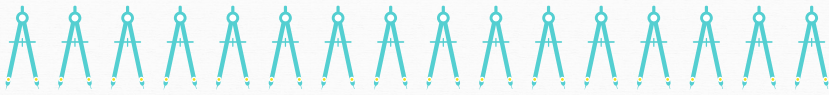


reactions. In reality, we rely on chemical fueled rockets, but NASA...

is developing a fusion engine



plasma created from deuterium and tritium. Go Scotty!



The Eiffel Tower

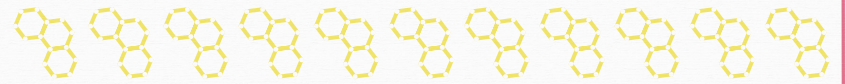
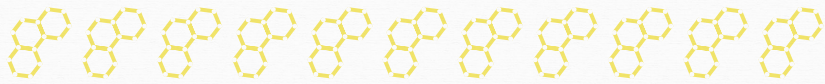
¹⁶ S Sulfur 32.06	¹ H Hydrogen 1.007	⁸⁸ R Radium (226)	⁴⁹ In Indium 114.8	³⁹ K Potassium 39.10	¹⁶ S Sulfur 32.06
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and expands an average of...

6 inches per year due to temperature changes and

⁹⁰ Th Thorium 232.0	⁶⁸ Er Erbium 167.3	²⁵ Mn Manganese 54.94	¹³ Al Aluminum 26.98
------------------------------------------------	-----------------------------------------------	--------------------------------------------------	-------------------------------------------------

expansion.



ROYGBIV is how scientists remember the orders of the

⁷⁴ W Tungsten 183.8	⁷⁹ Au Gold 197.0	²³ V Vanadium 50.94	⁹⁹ Es Einsteinium (252)
------------------------------------------------	---------------------------------------------	------------------------------------------------	----------------------------------------------------

in the electromagnetic spectrum.

Blue light has

⁴² Mo Molybdenum 95.96	⁷⁵ Re Rhenium 186.2
---------------------------------------------------	------------------------------------------------

energy, a shorter wavelength and a higher frequency than red light.



How close are we to meeting aliens?

⁷⁵ Re Rhenium 186.2	³⁴ Se Selenium 78.96	¹⁸ Ar Argon 39.95	⁶ C Carbon 12.01	¹ H Hydrogen 1.007	⁶⁸ Er Erbium 167.3	¹⁶ S Sulfur 32.06
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are using infrared mapping throughout our Universe...

trying to find "heat waste" that could indicate complex biological life forms converting stellar

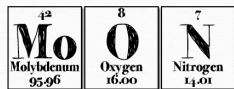
² He Helium 4.003	⁸⁵ At Astatine (210)
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into useable forms of energy.





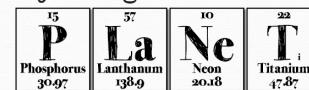
Why do we weigh less on the



and more on

Jupiter? Because weight is a quantified reflection of your mass, the amount of matter in your body,...

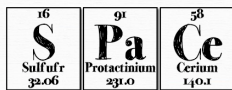
multiplied by the gravitational force of the



you inhabit.

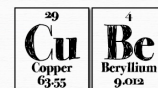


Atoms are over 99.9% empty



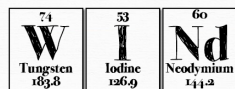
Because of this, if you could squeeze all of the empty space out of all the atoms...

in all the people in the world, you could fit the entire human race in the volume of a sugar





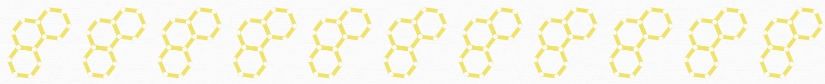
What do you call iron blowing in the



?



breeze



57 La Lanthanum 138.9	16 S Sulfur 32.06	68 Er Erbium 167.3
---------------------------------------	-----------------------------------	------------------------------------

is an abbreviation of Light
Amplification by Stimulated Emission of Radiation.

54 Xe Xenon 131.3	102 No Nobelium (259)	7 N Nitrogen 14.01
-----------------------------------	---------------------------------------	------------------------------------

Noble gas lasers can cut through
materials so tough even diamond tipped blades
will not cut them.



Temperature measures the average

¹⁹ K Potassium 39.10	⁴⁹ In Indium 114.8	⁹⁹ E Einsteinium (252)	²² Ti Titanium 47.87	⁶ C Carbon 12.01
-------------------------------------------------	-----------------------------------------------	---------------------------------------------------	-------------------------------------------------	---------------------------------------------

energy of the molecules.

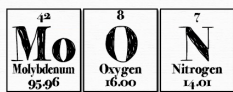
⁴⁹ In Indium 114.8	⁵² Te Tellurium 127.6	⁸⁶ Rn Radon (222)	¹³ Al Aluminum 26.98
-----------------------------------------------	--------------------------------------------------	----------------------------------------------	-------------------------------------------------

energy always flows from an object at higher temperature to one of lower temperature.

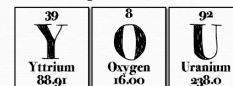




Due to the effects of gravity, when the



is directly overhead,



weigh slightly less.



¹³ Al Aluminum 26.98	⁹⁹ E Einsteinium (252)	⁵⁴ X Xenon 131.3	⁷⁹ A Gold 197.0	⁶⁰ Nd Neodymium 144.2	⁶⁸ Er Erbium 167.3
-------------------------------------------------	---------------------------------------------------	---------------------------------------------	--------------------------------------------	--------------------------------------------------	-----------------------------------------------

Graham Bell

created a form of electric telegraph that sent signals as musical notes made by vibrating reeds.

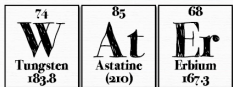
This idea led him to invent a way of

³⁴ Se Selenium 78.96	⁶⁰ Nd Neodymium 144.2	⁴⁹ In Indium 114.8	³² G Germanium 72.63
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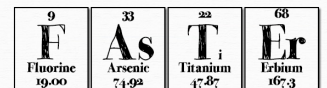
and receiving the frequencies present in the human voice... the telephone.



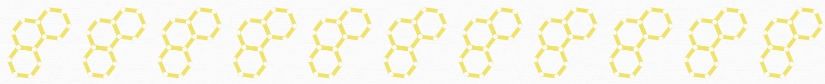
Sound travels nearly five times faster in



than in air and almost 20 times...



through steel because of the "stiffness" of
the molecules packed closer together.

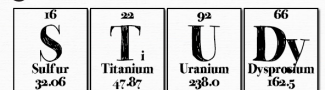


The

99 E Einsteinium (232)	18 Ar Argon 39.95	90 Th Thorium 232.0	16 S Sulfur 32.06
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 moon has changed very little in millions of years, due to its lack of atmosphere and weathering effects.

12 astronauts have been on the moon and over 880 lbs. of moon rock have been brought back to Earth for





Spectrometers

²⁷ Co Cobalt 58.93	⁷ N Nitrogen 14.01	⁷³ Ta Tantalum 180.9	⁴⁹ In Indium 114.8
-----------------------------------------------	-----------------------------------------------	-------------------------------------------------	-----------------------------------------------

prisms that split light from a star into a spectrum that can be analyzed.

Astronomer Annie Jump Cannon sorted thousands of stars based on their unique spectra, which determined their

⁶ C Carbon 12.01	² He Helium 4.003	¹² Mg Magnesium 24.31	⁵³ I Iodine 126.9	⁶ C Carbon 12.01	¹³ Al Aluminum 26.98
---------------------------------------------	----------------------------------------------	--------------------------------------------------	----------------------------------------------	---------------------------------------------	-------------------------------------------------

composition.





²⁷ Co Cobalt 58.93	¹⁵ P Phosphorus 30.97	¹⁵ P Phosphorus 30.97	⁶⁸ Er Erbium 167.3
-----------------------------------------------	--------------------------------------------------	--------------------------------------------------	-----------------------------------------------

metal and its alloys, containing at least 60% copper...

are naturally anti-

⁵ B Boron 10.80	⁸⁹ Ac Actinium (227)	⁵² Te Tellurium 127.6	⁸⁸ Ra Radium (226)	⁵³ I Iodine 126.9	¹³ Al Aluminium 26.98
--------------------------------------------	-------------------------------------------------	--------------------------------------------------	-----------------------------------------------	----------------------------------------------	--------------------------------------------------



The amount of

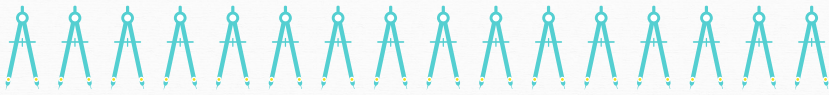
²⁰ Ca Calcium 40.08	³⁷ Rb Rubidium 85.47	⁸ O Oxygen 16.00	⁷ N Nitrogen 14.01
------------------------------------------------	-------------------------------------------------	---------------------------------------------	-----------------------------------------------

 in the human body is enough to fill about 9,000 "lead" pencils.

An average adult

⁵ B Boron 10.81	⁸ O Oxygen 16.00	⁶⁶ Dy Dysprosium 162.5
--------------------------------------------	---------------------------------------------	---------------------------------------------------

 contains around 250g (1/2lb) of salt.



An

8
O
Oxygen 16.00

92
U
Uranium 238.0

7
N
Nitrogen 14.01

58
Ce
Cerium 140.1

 of gold can be stretched
into a wire 80 kms (50 miles) long..

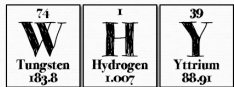
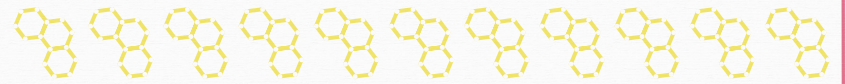
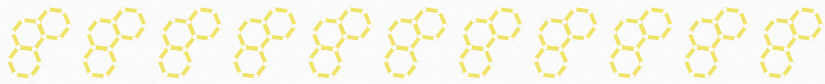
and absolutely

15
P
Phosphorus 30.97

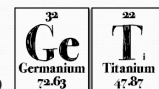
92
U
Uranium 238.0

75
Re
Rhenium 186.2

 gold is so soft it
can be molded with the hands.



did the chicken cross the Mobius strip?



To to the same side.



The air around humans is made up primarily of Nitrogen (almost 80%). Bags of potato

⁶ C Carbon 12.01	¹ H Hydrogen 1.007	⁵³ I Iodine 126.9	¹⁵ P Phosphorus 30.97	¹⁶ S Sulfur 32.06
---------------------------------------------	-----------------------------------------------	----------------------------------------------	--------------------------------------------------	----------------------------------------------

are filled with nitrogen to

exclude oxygen which would react with the

⁹ F Fluorine 19.00	⁸⁵ At Astatine (ast)
-----------------------------------------------	-------------------------------------------------

and make them go stale.





At

52	Te
Tellurium	
127.6	

7	N
Nitrogen	
14.01	

 different times in the past three million years, the Earth's magnetic field has flipped...

reversing itself. Scientists aren't

16	S	92	U	75	Re
Sulfur		Uranium		Rhenium	
32.06		238.0		186.2	

why this happens.



Most cars use unleaded gasoline, because lead can prevent platinum and rhodium

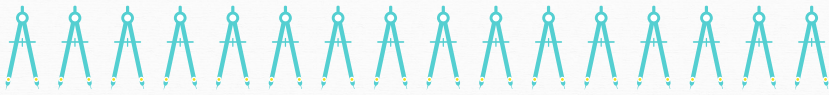
⁷⁵ Re Rhenium 186.2	⁸⁹ Ac Actinium (227)	²² Ti Titanium 47.87	⁸ O Oxygen 16.00	⁷ N Nitrogen 14.01	¹⁶ S Sulfur 32.06
------------------------------------------------	-------------------------------------------------	-------------------------------------------------	---------------------------------------------	-----------------------------------------------	----------------------------------------------

from occurring

catalytic converters use platinum and rhodium reactions to convert toxic

⁷⁴ W Tungsten 183.8	³³ As Arsenic 74.92	⁵² Te Tellurium 127.6
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gases from our cars into less harmful gases.



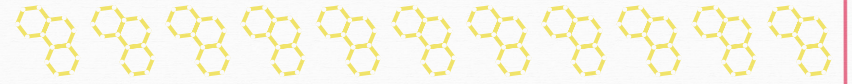
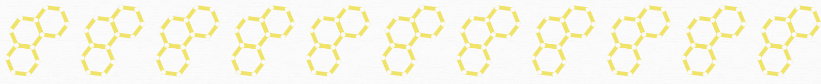
Motor Neurons are the longest cells in the human

5 B Boron 10.80	8 O Oxygen 16.00	66 Dy Dysprosium 162.5
---------------------------------	----------------------------------	----------------------------------------

running from the lower spinal cord to the big toe.

20 Ca Calcium 40.08	7 N Nitrogen 14.01
-------------------------------------	------------------------------------

They be up to 4.5 feet long.



400 million years ago, a year
was about 400 days long because the

¹⁶ S Sulfur 32.06	¹⁵ P Phosphorus 30.97	⁵³ I Iodine 126.9	⁷ N Nitrogen 14.01
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of the Earth on its axis is very gradually slowing down.

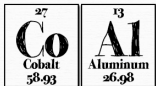
This slowing is due to the

⁸⁷ Fr Francium (223)	⁵³ I Iodine 126.9	⁶ C Carbon 12.01	²² Ti Titanium 47.87	⁸ O Oxygen 16.00	⁷ N Nitrogen 14.01
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of the tides dragging water back
and forth around the surface.

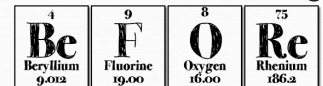


Fossil fuels such as



oil, and natural gas come from sea fossils (trilobites, crinoids and brachiopods) that were alive 570 million years ago...

during the Paleozoic era, long



the dinosaurs.





In case you feel old, the Earth is 4.5

⁸³ Bi Bismuth 209.0	⁵⁷ L Lanthanum 138.9	³ Li Lithium 6.938	⁸ O Oxygen 16.00	⁷ N Nitrogen 14.01
------------------------------------------------	-------------------------------------------------	-----------------------------------------------	---------------------------------------------	-----------------------------------------------

years old and

⁹² U Uranium 238.0	²⁸ Ni Nickel 58.69	²³ V Vanadium 50.94	⁶⁸ Er Erbium 167.3	³⁴ Se Selenium 78.96
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the is 13.8 billion years old.



The

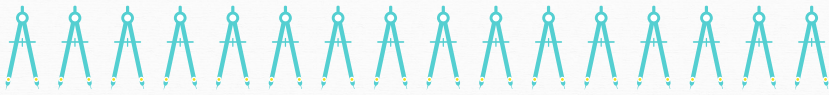
5 B Boron 10.81	49 In Indium 114.8	18 Ar Argon 39.95	39 Y Yttrium 88.91
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 stars of Star Wars'
Tatooine are very much a reality in our Universe.
Check out 16 Cygni B and

55 Cancri A. ...but none have been

9 F Fluorine 19.00	8 O Oxygen 16.00	92 U Uranium 238.0	60 Nd Neodymium 144.2
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to be habitable. Yet.

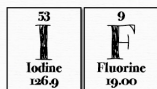


⁷⁴ W Tungsten 183.8	¹ H Hydrogen 1.007	⁸⁵ At Astatine (210)
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is the name of the first electricity detective?

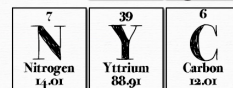
¹⁶ S Sulfur 32.06	¹ H Hydrogen 1.007	⁶⁸ Er Erbium 167.3	³ Li Lithium 6.938	⁸ O Oxygen 16.00	⁶ C Carbon 12.01	¹⁹ K Potassium 39.10
----------------------------------------------	-----------------------------------------------	-----------------------------------------------	-----------------------------------------------	---------------------------------------------	---------------------------------------------	-------------------------------------------------

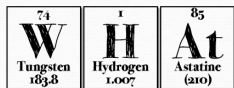
Ohms



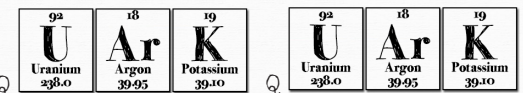
the nucleus of an atom were the size of a billiard ball...

the entire atom would be the same size
as the Empire State Building in





did the subatomic particle say to the duck?







The average lightning bolt is 5 times hotter than the

¹⁶ S Sulfur 32.06	⁹² U Uranium 238.0	⁷ N Nitrogen 14.01
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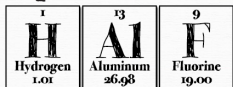
and each time lightning strikes,

some ozone gas is produced, thus strengthening
the ozone layer in the Earth's

⁸⁵ At Astatine (210)	⁴² Mo Molybdenum 95.96	¹⁶ S Sulfur 32.06	¹⁵ P Phosphorus 30.97	² He Helium 4.003	⁷⁵ Re Rhenium 186.2
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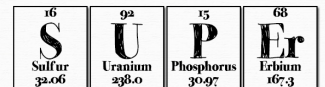


Jupiter Contains two and a

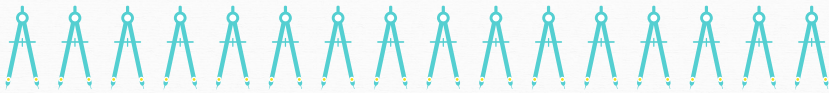


times more mass than the other seven planets combined.

And it rotates in less than ten hours which causes



high winds.



Why does a

1 H Hydrogen 1.007	95 Am Americium (243)	5 B Boron 10.80	92 U Uranium 238.0	111 Rg Roentgenium (280)	68 Er Erbium 167.3
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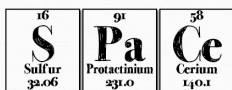
have lower energy than a steak?

Because it's in a ground

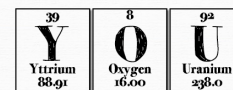
16 S Sulfur 32.06	73 Ta Tantalum 180.9	52 Te Tellurium 127.6
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How do you organize a party in



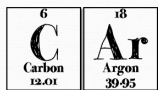
?



planet.

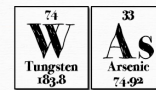


What happened to the man who
was stopped for having sodium
chloride and a nine-volt in his



?

He



booked for a salt and battery.





What did the bartender say when oxygen hydrogen, sulfur, sodium, and phosphorus walked into his bar?

⁸ O Oxygen 16.00	¹ H Hydrogen 1.007	¹⁶ S Sulfur 32.06	¹¹ Na Sodium 22.99	¹⁵ P Phosphorus 30.97
---------------------------------------------	-----------------------------------------------	----------------------------------------------	-----------------------------------------------	--------------------------------------------------



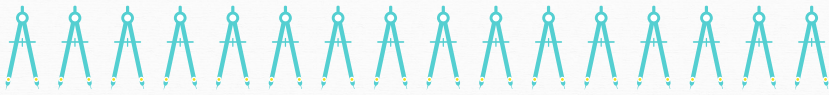
What is the name of 007's



cousin?

Polar





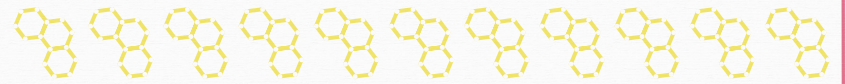
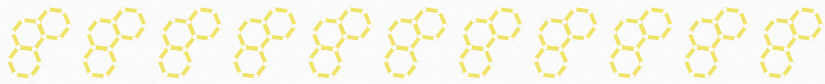
Pericompsos bilbo is a beetle of the

³² Ge Germanium 72.63	⁷ N Nitrogen 14.01	⁹² U Uranium 238.0	¹⁶ S Sulfur 32.06
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carabidae family, and a South American weevil has been named Macrostyphlus frodo.

Other species named after Lord of the Rings characters include an ancient crocodile, a dinosaur and a

¹⁶ S Sulfur 32.06	¹ H Hydrogen 1.007	¹⁸ Ar Argon 39.95	¹⁹ K Potassium 39.10
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C3PO and R2D2, from the movie Star Wars are close to being a reality since General Motors and NASA joined

⁹ F Fluorine 19.00	⁸ O Oxygen 16.00	⁸⁸ R_a Radium (226)	⁵⁸ Ce Cerium 140.1	¹⁶ S Sulfur 32.06
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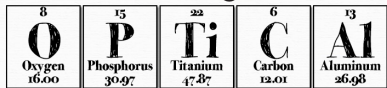
Robonaut 2 (R2), a highly dexterous anthropomorphic robot, is now a permanent resident on the International Space

¹⁶ S Sulfur 32.06	⁷³ Ta Tantalum 180.9	²² Ti Titanium 47.87	⁸ O Oxygen 16.00	⁷ N Nitrogen 14.01
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working daily alongside astronauts.

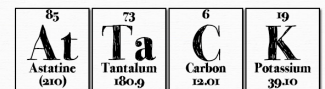


The warning beacons of Gondor, lit by Pippin in
Lord of the Rings, were an ancient form of



telegraphy...

used throughout Europe and as far back as the
Byzantine Empire as a means to communicate and
warn of impending enemy







A photon

⁶ C Carbon 12.01	² He Helium 4.003	⁶ C Carbon 12.01	¹⁹ K Potassium 39.10	¹⁶ S Sulfur 32.06
---------------------------------------------	----------------------------------------------	---------------------------------------------	-------------------------------------------------	----------------------------------------------

 into the
hotel. The bellman asks "may I help you with your luggage?"

It

⁷⁵ Re Rhenium 186.2	¹⁵ P Phosphorus 30.97	³ Li Lithium 6.938	⁹⁹ Es Einsteinium (252)
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"I don't have any, I'm traveling light."



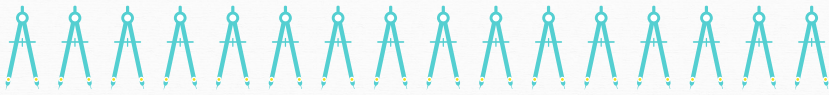
The communicators used on Star Trek are somewhat provincial now that cell

¹⁵ P Phosphorus 30.97	⁶⁷ Ho Holmium 164.9	¹⁰ Ne Neon 20.18	¹⁶ S Sulfur 32.06
--------------------------------------------------	------------------------------------------------	---------------------------------------------	----------------------------------------------

have become so ubiquitous...

²³ V Vanadium 50.94	⁶⁸ Er Erbium 167.3	⁵ B Boron 10.80	¹³ Al Aluminum 26.98
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and they only shared information when exploring a strange new world, we would share videos and tweets.



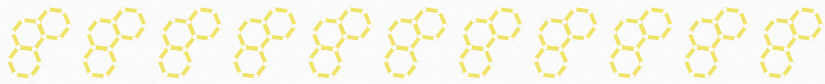
The most abundant element in the

⁹² U Uranium 238.0	²⁸ Ni Nickel 58.69	²³ V Vanadium 50.94	⁶⁸ Er Erbium 167.3	³⁴ Se Selenium 78.96
-----------------------------------------------	-----------------------------------------------	------------------------------------------------	-----------------------------------------------	-------------------------------------------------

is hydrogen...

oxygen is the most plentiful element
in the Earth's crust, waters, and

⁸⁵ At Astatine (210)	⁴² Mo Molybdenum 95.96	¹⁶ S Sulfur 32.06	¹⁵ P Phosphorus 30.97	² He Helium 4.003	⁷⁵ Re Rhenium 186.2
-------------------------------------------------	---------------------------------------------------	----------------------------------------------	--------------------------------------------------	----------------------------------------------	------------------------------------------------



Could Vulcan/human

¹ H Hydrogen 1.007	³⁹ Y Yttrium 88.91	³⁵ Br Bromine 79.90	⁵³ I Iodine 126.9	¹¹⁰ Ds Darmstadtium (281)
-----------------------------------------------	-----------------------------------------------	------------------------------------------------	----------------------------------------------	------------------------------------------------------

like our favorite pointy-eared character on Star Trek ever exist? It seems impossible,

but recombinant DNA has already been utilized to create interspecies hybrids. Mr.

¹⁶ S Sulfur 32.06	⁸⁴ Po Polonium (209)	⁶ C Carbon 12.01	³⁹ K Potassium 39.10
----------------------------------------------	-------------------------------------------------	---------------------------------------------	-------------------------------------------------

would be proud.

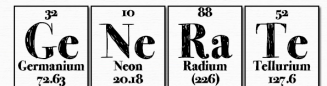


According to the Doppler effect a wave source moving

toward



will



waves with a shorter wavelength and higher frequency.





Topographical

²⁶ Fe Iron 55.85	⁸⁵ At Astatine (210)	⁹² U Uranium 238.0	⁷⁵ Re Rhenium 186.2	¹⁶ S Sulfur 32.06
---------------------------------------------	-------------------------------------------------	-----------------------------------------------	------------------------------------------------	----------------------------------------------

 of the deep ocean Rockall Plateau that lies to the west of Ireland and the UK have been named after famous Tolkien features.

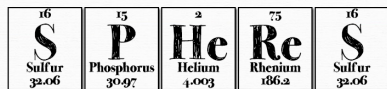
Some examples are the Rohan and Gondor Seamount, and the

⁵³ I Iodine 126.9	³⁴ Se Selenium 78.96	⁷ N Nitrogen 14.01	³¹ Ga Gallium 69.72	⁸⁸ R Radium (226)	⁶⁶ D Dysprosium 162.5
----------------------------------------------	-------------------------------------------------	-----------------------------------------------	------------------------------------------------	----------------------------------------------	--------------------------------------------------

Ridge.

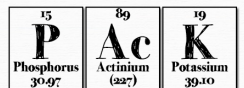


The light saber training droids that Luke used in Star Wars are now a scientific reality, thanks to the brilliant folks at MIT.

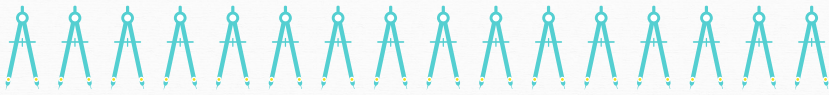


are

a volleyball sized satellite, complete with battery



and CO₂ propellant canister that conduct experiments in the International Space Station laboratory.



The hottest planet in our solar system is

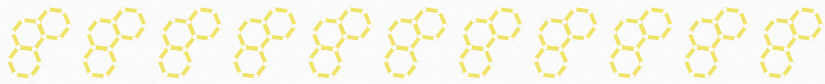
²³ V Vanadium 50.94	⁹⁹ E Einsteinium (232)	⁷ N Nitrogen 14.01	⁹² U Uranium 238.0	¹⁶ S Sulfur 32.06
------------------------------------------------	---------------------------------------------------	-----------------------------------------------	-----------------------------------------------	----------------------------------------------

with temperatures of 462° Celsius.

The coldest planet in our solar system is

¹⁰ Ne Neon 20.18	¹⁵ P Phosphorus 30.97	²² Ti Titanium 47.87	⁹² U Uranium 238.0	¹⁰ Ne Neon 20.18
---------------------------------------------	--------------------------------------------------	-------------------------------------------------	-----------------------------------------------	---------------------------------------------

with temperatures of -201° C.



Grand Unified Theories are the theories that

⁹⁹ E Einsteinium (252)	⁵⁴ X Xenon 131.3	¹⁵ P Phosphorus 30.97	⁵⁷ La Lanthanum 138.9	⁴⁹ In Indium 114.8
---------------------------------------------------	---------------------------------------------	--------------------------------------------------	--------------------------------------------------	-----------------------------------------------

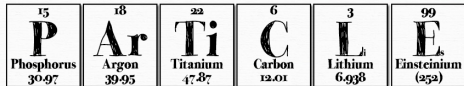
the...

relationship between subatomic particles and the primary

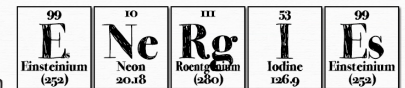
⁹ F Fluorine 19.00	⁸ O Oxygen 16.00	⁸⁸ R Radium (226)	⁵⁸ Ce Cerium 140.1	¹⁶ S Sulfur 32.06
-----------------------------------------------	---------------------------------------------	----------------------------------------------	-----------------------------------------------	----------------------------------------------



The largest
is the CERN's Large Hadron Collider in Geneva, Switzerland.
It is capable of accelerating protons to 99 percent the
speed of light while...



reaching collision
of 14 tera-electron volts and has led to the discovery
of the Higgs boson particle.







The Eye of Harmony, the engine in Dr. Who's Tardis, is a star on the verge of collapse. According to Einstein's Theory of

⁷⁵ Re Rhenium 186.2	⁵⁷ La Lanthanum 138.9	²² Ti Titanium 47.87	²³ V Vanadium 50.94	⁵³ I Iodine 126.9	⁷³ T_a Tantalum 180.9	³⁹ Y Yttrium 88.91
------------------------------------------------	--------------------------------------------------	-------------------------------------------------	------------------------------------------------	----------------------------------------------	------------------------------------------------------------	-----------------------------------------------

it could...

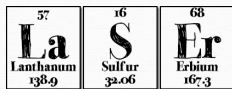
appear frozen to distant observers since mass and

⁹⁹ E Einsteinium (252)	¹⁰ Ne Neon 20.18	¹¹¹ Rg Roentgenium (280)	³⁹ Y Yttrium 88.91
---------------------------------------------------	---------------------------------------------	-----------------------------------------------------	-----------------------------------------------

curve space and time, essentially freezing our view of its collapse.

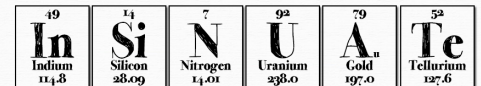


Astronauts from the Apollo missions staked a laser reflector onto the Moon's surface allowing scientists to periodically shoot a

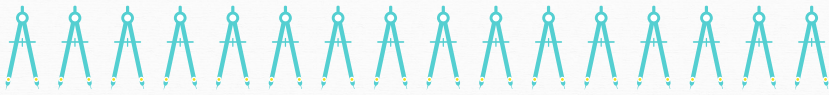


at the Moon and measure the time that it takes to return.

We know how far away the moon is at all times which silences any skeptics who think



that the moon landings were faked.



The gravitational

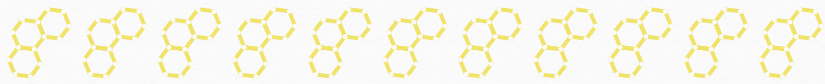
⁸⁴ Po Polonium (209)	⁵² Te Tellurium 127.6	⁷ N Nitrogen 14.01	²² Ti Titanium 47.87	¹³ Al Aluminum 26.98
-------------------------------------------------	--------------------------------------------------	-----------------------------------------------	-------------------------------------------------	-------------------------------------------------

energy of an object increases as its height increases and...

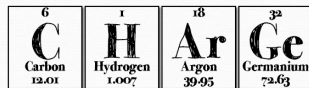
the

¹⁹ K Potassium 39.10	⁴⁹ In Indium 114.8	⁹⁹ E Einsteinium (252)	²² Ti Titanium 47.87	⁶ C Carbon 12.01
-------------------------------------------------	-----------------------------------------------	---------------------------------------------------	-------------------------------------------------	---------------------------------------------

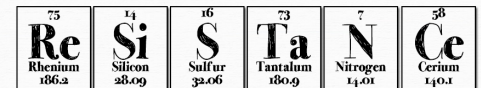
energy of an object changes only if its velocity changes.



A coulomb is a unit of electric
an amp is a unit for electric current,
an ohm is a unit of electric resistance and...



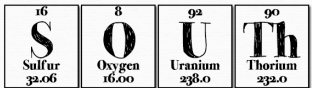
a volt is a unit for the difference of potential that
would drive one ampere of current against one ohm of



Or in other words: the desire for the electrons in the
current to move.

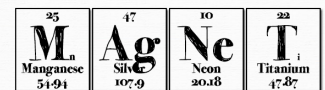


Magnetic fields point from the north to the



outside the magnet and

south to north inside the







The time travel of Dr. Who's Tardis into the future may be possible

⁷⁴ W Tungsten 183.8	² He Helium 4.003	⁷ N Nitrogen 14.01
------------------------------------------------	----------------------------------------------	-----------------------------------------------

you consider the theories of Albert Einstein.

Even though the speed of light 299,792,458 m/s is a constant, time itself is not an

⁷⁹ Au Gold 197.0	⁵ B Boron 10.80	¹⁶ S Sulfur 32.06	⁸ O Oxygen 16.00	⁷¹ Lu Lutetium 175.0	⁵² Te Tellurium 127.6
---------------------------------------------	--------------------------------------------	----------------------------------------------	---------------------------------------------	-------------------------------------------------	--------------------------------------------------

Time is dependent on the location of the observer.

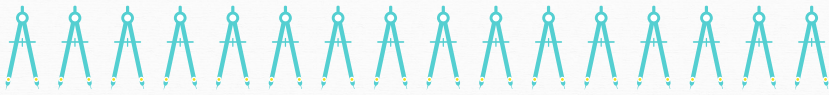


⁷ N Nitrogen 14.01	⁸⁵ At Astatine (86)	⁹² U Uranium 238.0	⁸⁸ Ra Radium (226)	³ Li Lithium 6.938
-----------------------------------------------	------------------------------------------------	-----------------------------------------------	-----------------------------------------------	-----------------------------------------------

radiation is alpha (

Alpha is the least dangerous and gamma is the most

¹ H Hydrogen 1.007	¹⁸ Ar Argon 39.95	²⁵ M Manganese 54.94	⁹ F Fluorine 19.00	⁹² U Uranium 238.0	³ Li Lithium 6.938
-----------------------------------------------	----------------------------------------------	-------------------------------------------------	-----------------------------------------------	-----------------------------------------------	-----------------------------------------------



Radio waves and microwaves are

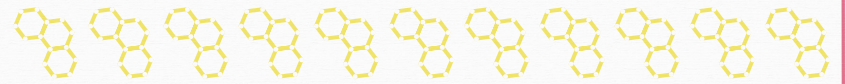
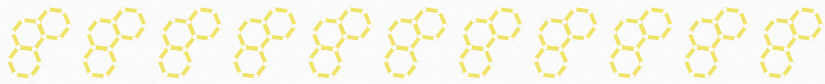
5 B Boron 10.80	8 O Oxygen 16.00	90 Th Thorium 232.0
---------------------------------	----------------------------------	-------------------------------------

electromagnetic, used for communication, and travel at the speed of light through space.

Radio waves do not affect organisms, but microwaves do

4 Be Beryllium 9.012	20 Ca Calcium 40.08	92 U Uranium 238.0	34 Se Selenium 78.96
--------------------------------------	-------------------------------------	------------------------------------	--------------------------------------

they cause water and fat molecules to heat up.



The desolation of Mordor, and the Dead Marshes of
Lord of the Rings were heavily

⁴⁹ In Indium 114.8	¹⁶ S Sulfur 32.06	¹⁵ P Phosphorus 30.97	⁷⁷ Ir Iridium 192.2	⁹⁹ E Einsteinium (252)	¹⁰⁵ D_b Dubnium (268)
-----------------------------------------------	----------------------------------------------	--------------------------------------------------	------------------------------------------------	---------------------------------------------------	------------------------------------------------------------

by Tolkien's memories of the

⁷⁴ W Tungsten 183.8	⁹⁹ Es Einsteinium (252)	⁵⁴ Te Tellurium 127.6	⁸⁶ Rn Radon (222)
------------------------------------------------	----------------------------------------------------	--------------------------------------------------	----------------------------------------------

Front of World War I where he was stationed.

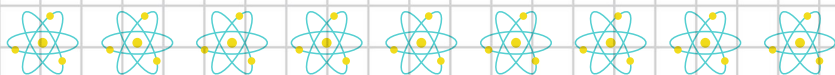


⁴⁴ Ru Ruthenium 101.1	⁴⁵ Rh Rhodium 102.9	⁴⁶ Pd Palladium 106.4	⁴⁷ Ag Silver 107.9	⁷⁶ Os Osmium 190.2	⁷⁷ Ir Iridium 192.2	⁷⁸ Pt Platinum 195.1	⁷⁹ Au Gold 197.0
--------------------------------------------------	------------------------------------------------	--------------------------------------------------	-----------------------------------------------	-----------------------------------------------	------------------------------------------------	-------------------------------------------------	---------------------------------------------

Ruthenium, Rhodium, Palladium, Silver, Osmium,
Iridium, Platinum and Gold do not rust.

¹⁰² No Nobelium (259)	⁵ B Boron 10.80	³ Li Lithium 6.938	⁹⁹ E Einsteinium (252)
--------------------------------------------------	--------------------------------------------	-----------------------------------------------	---------------------------------------------------

They are the _____ metals.



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