

February 2019 wordoku

	A							T
					U			
		T					U	M
	M	N	S		I		F	
	T				F			N
	I	U			A			
					I			S
				M		N	E	A
A			U			M		N

A
E
F
I
M
N
S
T
U

Solve this wordoku in the same way as a sudoku with letters instead of numbers (each of the nine letters in each row, column and nine-square cell). Once solved, one of the overall diagonals can be rearranged into a French chemist's surname. The name consists of five element symbols in sequence: metal-gas-metal-gas-metal.

February 2019 word grid

Si	C	Y
Co	S	Te
In	N	N

Prize entry: Using each element symbol in the grid only once, combine them together to make a single word of 12 letters.

Word.....

Just for fun: Construct as many other words as you can using a minimum of three symbols, and each symbol only once.
 6 words: OK
 9 words: Good
 12+ words: Excellent

February 2019 crossword

1		2		3		4		5		6		7		8
9								10						
11						12								
13						14				15			16	
17								18		19				
20			21									22		23
												24		
25										26				
27														

February 2019 science scramble

Similar to a word ladder, each answer provides letters that must appear - including duplicates - in the answer immediately following it. The puzzle's final answer is a scientist or someone who contributed to science.

For example:

- 1 sail
- 2 snail
- 3 saline
- 4 minerals
- 5 Neil Armstrong

Entry form

There are four prize puzzles on this page: crossword (cryptic answers only); wordoku; science scramble; and word grid. For each puzzle, a winner will be selected from all the correct entries received and awarded a £25 book voucher.

You can enter any or all of the prize draws, but each entrant is only eligible to win one of the individual puzzle prizes each month.

Please enter your details below and either post or email this page with your completed entries to us by **20 February 2019**. The winners of this month's puzzles will be published in the March 2019 issue, along with the solutions.

Chemistry World puzzles, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF, UK
 Email: chemistryworld@rsc.org

Name

Address

Participants are advised that any personal information supplied will be processed in connection with this competition and only in accordance with our privacy statement (www.chemistryworld.com/privacy).

1		Piece of cloth (3)
2		Relative (4)
3		Inert gas (5)
4		Steroid hormones (9)
5		Swedish physicist with a unit of length named after him (6, 8)

Cryptic (prize entry)

- Across**
- 1 Beginners converted coiled lab kit (6, 9)
 - 9 Spiel about oddly grey form of iron (7)
 - 10 Mineral I love in confusion (7)
 - 11 Big bird disturbing hare (4)
 - 12 All powerful men mix first toxic potion (10)
 - 13 See 21 Down
 - 15 Gold coinage somehow Romeo hid? Not hard! (7)
 - 17 Rages on about fruit (7)
 - 19 Even Eleanor leaves villainous reconstructed capital (7)
 - 20 Hate simile about descendant of Abraham's first son (10)
 - 22 Swindler containing his flatulence (4)
 - 25 Oddly ignored painter fashioning blue clouds (7)
 - 26 Maria translated odd clue for French writer (7)
 - 27 Heretics wailing about German scientist (9, 6)

- Down**
- 1 Light included in fire sale returns (5)
 - 2 I lolloped oddly around maze to find novelist (5, 4)
 - 3 Section of diagonal has character (4)
 - 4 Oddly clowns around slum pillars (7)
 - 5 Without the French, I transmute nobelium into another metal (7)
 - 6 Somehow I tailored something for page one (9)
 - 7, 24 Down I'll reuse Dad's first calculator (5, 4)
 - 8 Old x-ray units turning snot green (9)
 - 13 Stay charged with this type of acid? (9)
 - 14 Earl using prepared fish (9)
 - 16 Is cross about indigo chemically converting (9)
 - 18 Roadie oddly lies about composer (7)
 - 19 Left out vital mineral containing essential compound (7)
 - 21, 13 Across Reconstructed probe crashes to produce ammonia? (5, 7)
 - 23 Radical upset Clyde (5)
 - 24 See 7 Down

Quick (just for fun)

- Across**
- 1 Student of Marie Curie and discoverer of francium (10, 5)
 - 9 English painter and printmaker (1860-1942) (7)
 - 10 First female aviator to fly solo across the Atlantic (7)
 - 11 Part of a bottle (4)
 - 12 Female relation (10)
 - 13 Grates (7)
 - 15 Curricula (7)
 - 17 Illuminate (5, 2)
 - 19 Synthetic element named after a German state (7)
 - 20 Optical apparatus (10)
 - 22 _____ Sundstrom. Swedish chemist who worked with Jöns Jacob Berzelius (4)
 - 25 French who won the Battle of Hastings in 1066 (7)
 - 26 Sleeveless item of clothing (4, 3)
 - 27 Long chain of bacilli, end-to-end (15)

- Down**
- 1 Sub-atomic particle (5)
 - 2 Using waste after processing (9)
 - 3 American physical chemist who won the 1934 chemistry Nobel prize for discovering deuterium (4)
 - 4 Turns around (7)
 - 5 Greek poet in 6th century BC credited with inventing Greek tragedy (7)
 - 6 See 23 Down
 - 7 Interact chemically (5)
 - 8 One of four elements named after a Swedish village (9)
 - 13 Sources of element 79 (4, 5)
 - 14 Fossil fruit (9)
 - 16 Separator (9)
 - 18 Spanish artist of the 20th century (7)
 - 19 Mathematician, philosopher and astronomer of 4th-5th century AD who lived in Alexandria (7)
 - 21 Someone who looks after another (5)
 - 23, 6 Down He²⁺ He²⁺ He²⁺ (5, 9)
 - 24 Wading bird (4)

January 2019 solutions and winners

Cryptic (prize entry)

R	U	B	I	D	I	U	M	L	E	N	A	R	D
A	A	O	S	S	U	L	L	I					
D	E	C	A	G	O	N	A	L	C	H	A	R	M
I	O	G	I	A	L	B	E						
O	U	N	C	E	C	O	G	N	I	S	A	N	T
T			D		H		D		S		H		
E	T	H	Y	L	E	T	H	E	R	S	T	A	Y
L	E	Y	I	A	P	E	L						
E	X	A	M	C	R	Y	P	T	O	G	R	A	M
S	D	A	E	S									
C	O	L	O	N	I	S	E	R	E	S	T	E	R
O													
P	A	U	L	I	M	O	G	A	D	I	S	H	U
E	S	N	E	E	O	L	R						
S	L	E	I	G	H	I	R	O	N	L	A	D	Y

Quick (just for fun)

A	N	G	S	T	R	O	M	I	C	E	C	A	P
N	A	W	P	C	U	A	A	S					
N	E	U	R	O	P	A	T	H	R	A	T	T	Y
I	D	S	L	E	I	A	C						
E	N	I	A	C	S	A	S	Q	U	A	T	C	H
J													
U	P	P	E	R	C	R	U	S	T	U	N	I	T
M	O	E	O	E	E	E	I	H					
P	I	L	L	E	A	E	T	H	Q	U	A	K	E
C	Y	E	D	U	R								
A	P	E	R	T	U	R	E	S	A	L	P	H	A
N	S	H	A	O	T	R	P						
N	I	T	R	E	G	A	L	L	I	P	O	L	I
O	E	R	E	A	O	V	S						
N	E	R	N	S	T	F	R	A	N	G	E	N	T

Wordoku

The name of the chemical element was STRONTIUM

Word grid

The nine-symbol word was CONDUCTIVITIES

Science scramble

- 1 DNA
- 2 Diana
- 3 Indiana
- 4 Finlandia
- 5 Rosalind Franklin

January winners

- Science scramble**
Steve Richardson
Tockwith, UK
- Wordoku**
M S McLaren
Granttown-on-Spey, UK
- Word grid**
Lee Vousden
Redhill, UK
- Crossword**
Leonard Winning
Surbiton, UK

Tom Johnson is an emergency responder at the National Chemical Emergency Centre

Typically with spillages absorbing is the go-to option, but in this case that is not as viable due to the volume of spilled liquid. In this case, it would be best to remove the pool with an intrinsically safe pump, which is insulated in such a way that it will not provide an ignition source. The risk of fire can be reduced by ventilating the building and monitoring vapour levels using a gas monitor capable of detecting explosive limits. Following the pumping, any remaining residues can be absorbed and disposed of with the rest of the spillage as hazardous waste.

On the spot

