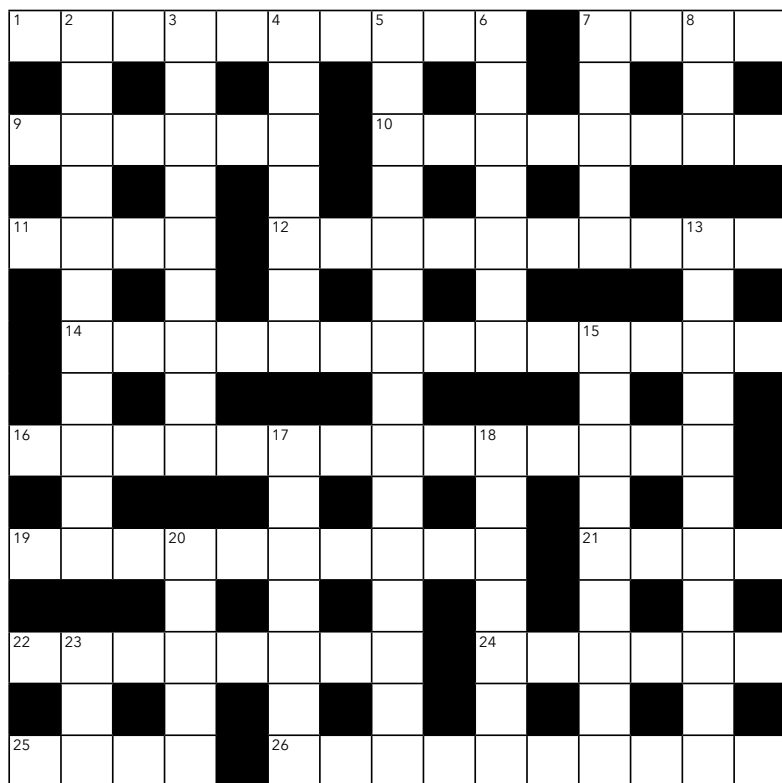
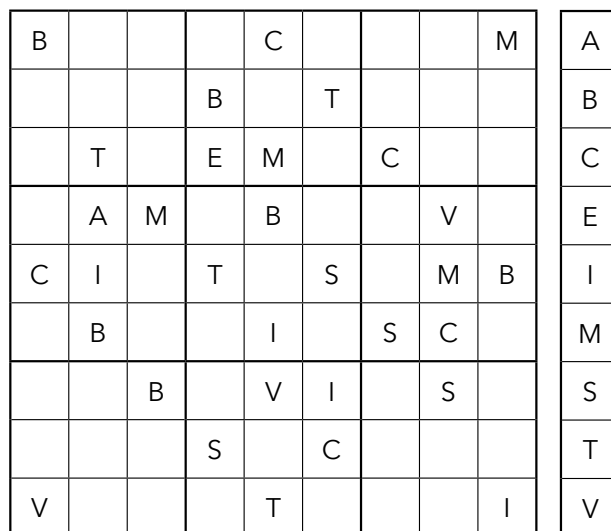


### July 2022 crossword



### July 2022 wordoku



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 to give a  $\beta$ -lactamase inhibitor used to treat drug-resistant infections.

#### Cryptic

##### Across

- Papa - he's fatter perhaps? It's relative! (10)
- She's confused the chemist (4)
- Unable to change interstellar cloud (6)
- Pages about oddly acting spectacles (8)
- Performs the book (4)
- Order acrylic box for this type of acid (10)
- Firm tetchy about some science (14)
- On arrangement scanners pirate slides (14)
- Somehow we'll finally expose white rock (10)
- Healthy source of water (4)
- Singers featured in broadcast ratings (8)
- He edited, took it and took notice (6)
- Drill the scientist on the radio (4)
- I make stars a form of mineral (10)

##### Down

- Thereafter shifted to the French (11)
- Singer-songwriter plays slum piano (4, 5)
- Can I name this capital? Course I can (reportedly)! (7)
- Hide myth about Priory's condition (15)
- Wiggly thing that makes ram grow? (7)
- 20 Down Unusually reheat wavy liquid (5,5)
- Glued to the TV? (3)
- I relent about Iris not being tough (11)
- Phew - Rick's turned into a hulk (9)
- Paul's turning extreme radicals into stars (7)
- Some canoe the rivers to find the mathematician (7)
- See 7 Down
- Group in Anzio oddly (3)

#### Quick

##### Across

- Type of energy extracted from the Earth's subsurface (10)
- Large aquatic grass (4)
- Greek letter used to signify wavelength (6)
- Crystallographer who proved that the benzene ring is flat (8)
- Unadulterated (4)
- Mineral,  $(\text{NH}_4)_2\text{SO}_4$  (10)
- Slides (14)
- IT (8, 6)
- Help (10)
- Engrave using hydrofluoric acid (4)
- $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$  (8)
- See 4 Down
- Type of miner's lamp invented by a Cornish chemist (4)
- Regulated (10)

##### Down

- Appraisals (11)
- Form of domestic lighting (5, 4)
- 24 Across Founding member of the Lunar Society of Birmingham and author of *The Botanic Garden* (7, 6)
- Particle physicist who co-discovered the top quark and Higgs boson (7, 8)
- Insecticide,  $\text{C}_6\text{H}_6\text{Cl}_6$  (7)
- Radioactive noble gas (5)
- Type of ray-finned fish (3)
- Transition layer in the ocean between warm water above and colder water below (11)
- Church with a bishop's seat (9)
- British passenger liner that sank in the North Atlantic in 1912 (7)
- Someone who gives in (7)
- Suggest (5)
- Single-stranded nucleic acid (abbrev) (3)

## July 2022 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

1  Noble gas (symbol) (2)

2  Recent (3)

3  Was familiar with (4)

4  Rousing (8)

5  Losing strength (9)

6  Subject of *The Theory of Everything* (7, 7)

### Quick quiz:

- Which single location has the most elements named after it, and what are they?
- Which South American country is named after an element and what is it?
- Which six elements are named after countries and what are they?
- What four elements are named after capitals?
- 'The Italian navigator has just landed in the New World.'  
What did this coded message from US physicist Arthur Compton confirm in 1942, and who was the 'Italian navigator'?

**Solutions:** 1. Ytterby, Sweden (yttrium, ytterbium, terbium, erbium). 2. Argentina and silver (argentum). 3. Gallium (France), francium (France), germanium (Germany), polonium (Poland), ruthenium (Russia), rhodium (Japan) [Note: americium is named after the Americas]. 4. Hafnium (Copenhagen), holmium (Stockholm), lutetium (Paris), moscovium (Moscow, although strictly it is named after Moscow (Oblast)). 5. First sustained nuclear reaction, December 2, 1942. The 'Italian navigator' was Enrico Fermi.

## Entry form

There are four prize puzzles on this page: cryptic crossword; quick crossword; wordoku; and science scramble. For each puzzle, a winner will be selected from all the correct entries received and awarded a £25 UK 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 email a scan or photograph of this page with your completed entries to us by **20 July 2022**. The winners of this month's puzzles will be published in the Month 2022 issue, along with the solutions.

Email: [chemistryworld@rsc.org](mailto: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](http://www.chemistryworld.com/privacy)).

## July 2022 Word grid

Use the element symbols from the panel on the right to complete the word grid below.

N	I		I	N
I				
	U	S		S
				I
		S	I	

Ac	Ce
Co	Er
In	Ne
O	Se
Ti	W

## June 2022 solutions and winners

### Cryptic

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

### Quick

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

### Wordoku

The Italian materials scientist was Silvia VIGNOLINI

### Science scramble

1 Lad; 2 Land; 3 Nodal;  
4 Dalton; 5 Scotland;  
6 Donna Strickland.

### Word grid

B	I	O	Ti	N
U		P		O
Ta	Ba	S	C	O
No		I		K
Ne	W	N	Es	S

### June winners

**Science scramble**  
David Francis  
Eastleigh, UK

**Wordoku**  
Alison Rawlinson  
Yateley, UK

**Cryptic crossword**  
Brian Mclean  
Worcester, UK

**Quick crossword**  
G Roberts  
West Glamorgan, UK