

CROSSWORD



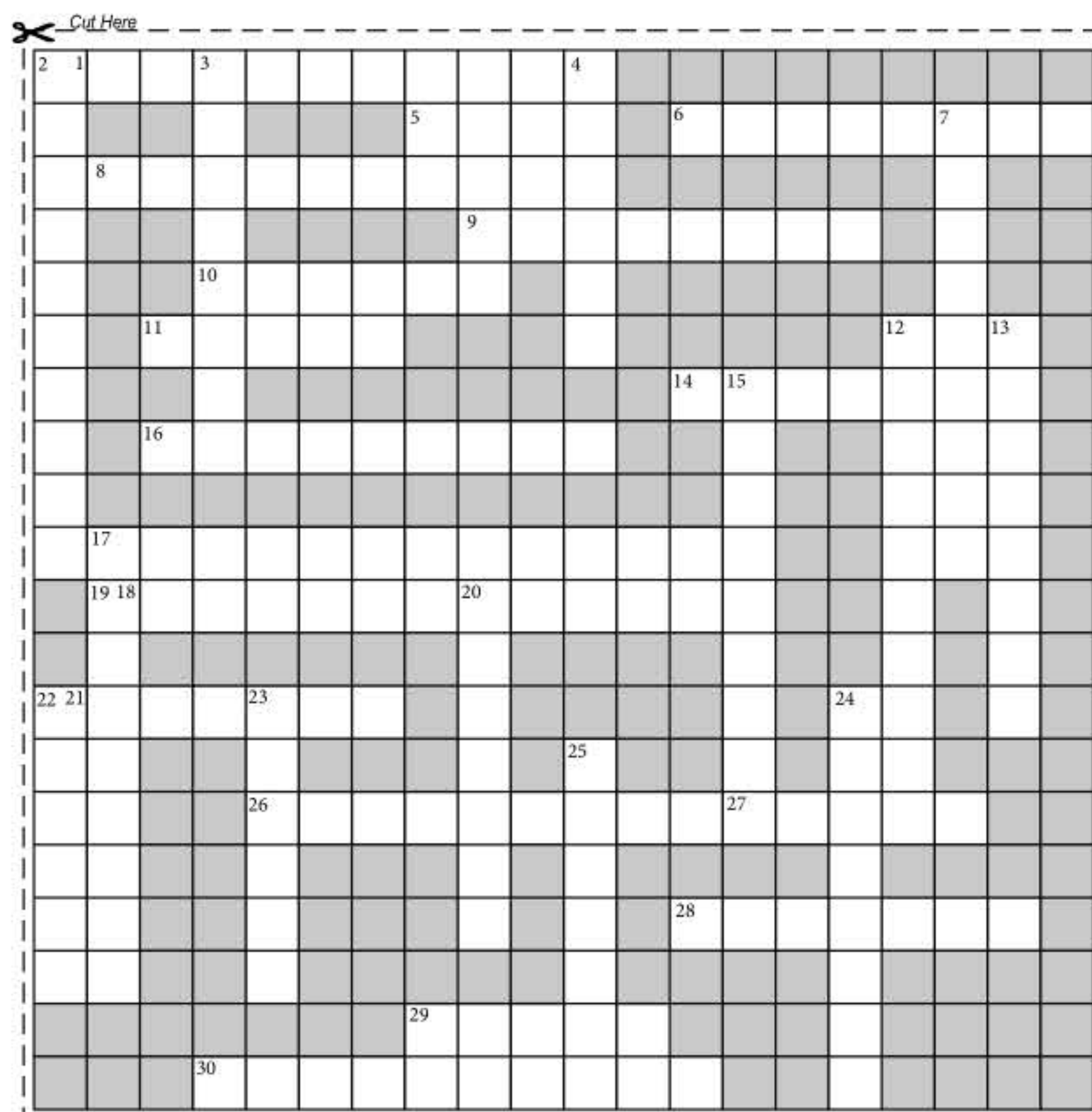
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ACROSS

- The region in an infrared spectrum below 1500 wave numbers. (11)
- The sum of oxidation numbers of lead in litharge and manganese in permanganate ion. (4)
- The major constituent of the oil from orange peel. (8)
- The trivial name given to α , β -unsaturated ketones obtained by condensing an aromatic aldehyde with an aryl methyl ketone in presence of a base. (9)
- A chemical used as a weapon with devastating and horrific effect in the 1914-18 war. (8)
- A molecular structure or state which has the characteristics of two or more other structures. (6)
- A poisonous protein of the lectin class produced from the seeds of the castor bean. (5)
- Chemicals used to break and remove snow or ice. (7)
- He is credited with coining the term, "catalysis". (9)
- Determination of molecular weight of a substance by observing the elevation in boiling point of solution. (12)
- Process of applying a protective zinc coating to prevent rusting. (13)
- An element named for the Greek word for "hidden". (7)
- Colloidal sols containing non-spherical particles which are capable of orientating themselves in a streaming potential. (9)
- Methane is called as _____ gas. (5)
- The oxide of this metalloid is toxic and has been used as a vermin poison. (7)
- _____ process is an industrial method for preparation of hydrogen by water gas. (5)
- A device which measures the relative density of two liquids. (10)

DOWN

- A method by which hydrophobic particles of an ore are separated from hydrophilic particles in a metallurgical process. (10)
- A non metal, which has layers of hexagonally arranged carbon atoms. (8)
- It is slippery, corrosion resistant plastic. (6)
- A type of isomerism shown by substances which contain several asymmetric centres but differ in the configuration around one asymmetric carbon. (9)



- A high explosive made from a gel of nitroglycerine and nitrocellulose in a base of wood pulp and sodium or potassium nitrate. (9)
- It is estimated that the amount of this element in the earth's crust at any particular time is less than 30 grams. (8)
- Graph of free energy change with temperature is called _____ diagram. (9)
- A primary alcohol which is a constituent of geranium oil. (8)
- A mesoionic heterocyclic aromatic chemical compound. (7)
- The nucleus and all inner shell electrons in an atom except the valence electrons. (6)
- The isomorphous salt, $M_2^I SO_4 M^{II} SO_4 \cdot 6H_2O$ where, M^I is an alkali metal and M^{II} is a dipositive transition metal. (6)
- _____ is a mixture of copper sulphate and slaked lime and used as a fungicide. (8)
- _____ process is used for making sulphur (VI) oxide. (7)



SOLUTIONS OF MARCH 2017 CROSSWORD

² F ¹	I	N	³ G	E	R	P	R	I	N	⁴ T									
L			R				⁵ N	I	N	E		⁶ L	I	M	O	N	⁷ E	N	E
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A			P					⁹ C	H	L	O	R	I	N	E		I		
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T			T									¹⁴ D	¹⁵ E	I	C	E	R	S	
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O													L			I	S	A	
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	E							Y					G			I		N	
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L	L			N						A					A				
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			³⁰ H	Y	D	R	O	M	E	T	E	R			X				

CROSSWORD



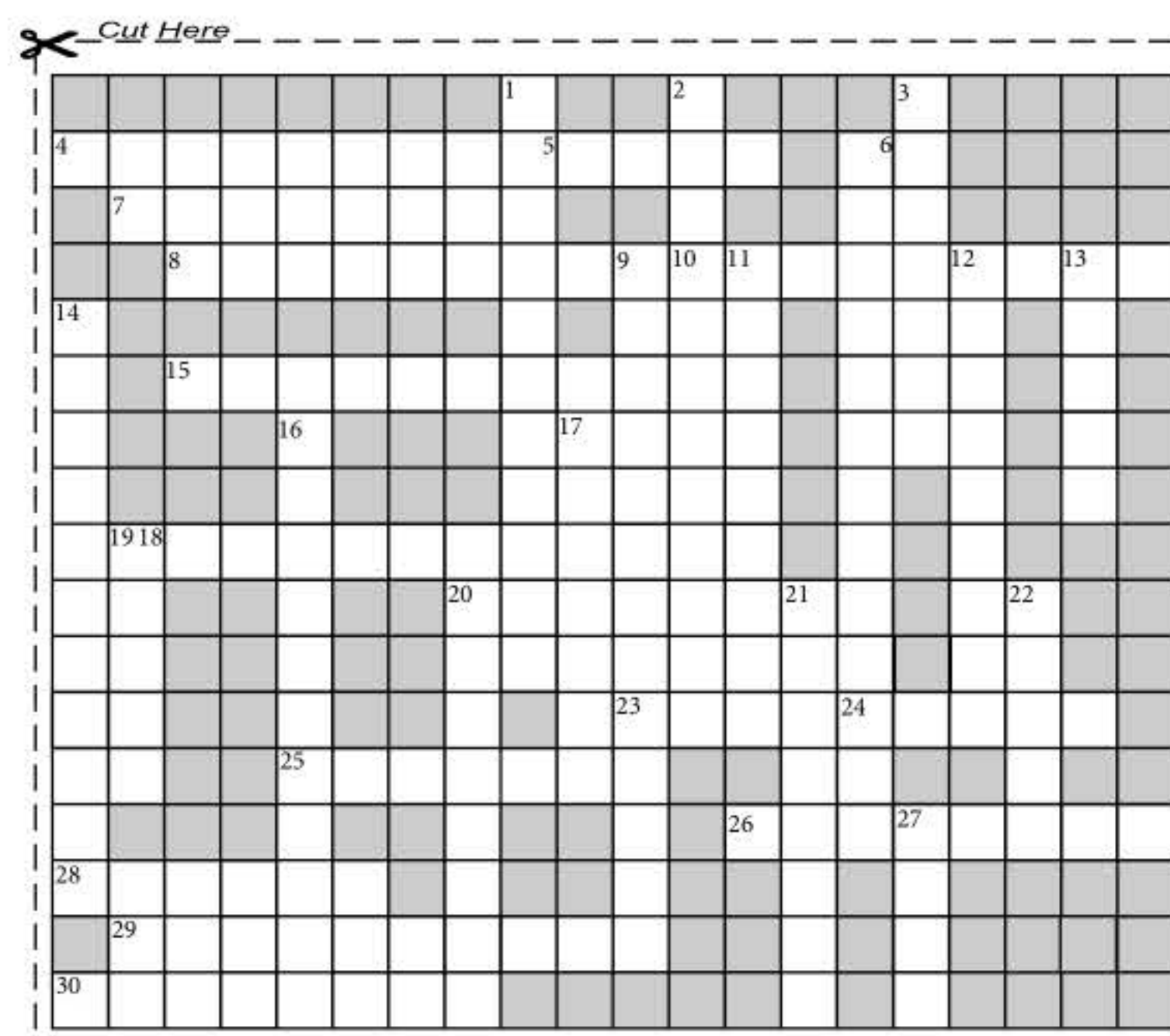
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ACROSS

4. A polymeric form of galactose found in hemicellulose. (8)
5. Gas used for filling incandescent metal filament electric bulbs. (5)
7. Notation for a stereochemical arrangement where all of the higher priority substituents are located on the same side of the double bond. (8)
8. A mixture of concentrated oxide ore and aluminium powder. (8)
10. A process in which RBC will shrink in hypertonic solution. (9)
15. Movement of gas molecules through a small opening. (8)
18. Reciprocal of the coefficient of viscosity. (8)
24. Important anti-cancer drug originally isolated from Pacific yew trees. (5)
25. A cyclic diester formed from α -hydroxyacids. (7)
26. The correctness of a measurement. (8)
28. Metal which gives a blue colour (in cold conditions) in oxidising flame in borax bead test. (6)
29. Particles evolved in artificial radioactive element when n/p ratio is lower than the required value for nuclear stability. (9)
30. The scientist who suggested an approach to electronegativity based on ionisation energy and electron affinity of an atom. (8)

DOWN

1. The yellow pigment present in egg yolk. (11)
2. The separation of colloidal sol into two liquid phases. (12)
3. Alternative name for acetaldehyde. (7)
6. Energy of a single wavelength of light. (13)
9. Orderly arrangement of micelles. (9)
11. A salt which is prepared from sodium dithionite and formaldehyde, is used as a reducing agent for vat dyeing. (9)



12. Element which is known as duckbill platypus. (8)
13. Industrial name of sodium peroxide. (5)
14. A graph of entropy of a substance against temperature. (10)
16. The number of milligrams of KOH required to neutralise the free acid present in one gram of the oil or fat. (9)
17. Another name for solid carbon dioxide. (7)
19. Chlorofluorocarbon compound of methane and ethane. (5)
20. Most impure form of iron. (8)
21. The form of carbon obtained by burning wood, cellulose or any other carbonous matter in a limited supply of air. (8)
22. Naturally occurring sodium carbonate, $\text{Na}_2\text{CO}_3 \cdot \text{NaHCO}_3 \cdot 2\text{H}_2\text{O}$ formed by evaporation of soda lakes. (5)
23. Unit of frequency. (5)
27. The diamide of carbonic acid. (4)



SOLUTIONS OF APRIL 2017 CROSSWORD

								¹ X			² C				³ E				
⁴ G	A	L	A	C	T	A	N	A ⁵	R	G	O	N		M ⁶	T				
	⁷ Z	U	S	A	M	M	E	N			A			O	H				
		⁸ T	H	E	R	M	I	T	E	⁹ M	¹⁰ C	¹¹ R	E	N	A	¹² T	I	¹³ O	N
¹⁴ T								H		E	E	O		O	N	H		X	
E		¹⁵ E	F	F	U	S	I	O	N	S	R	N		C	A	A		O	
P				¹⁶ A				P	¹⁷ D	O	V	G		H	L	L		N	
H				C				H	R	M	A	A		R		L		E	
I	¹⁹ ¹⁸ F	L	U	I	D	I	T	Y	I	O	T	L		O		I			
G	R			D			²⁰ C	L	K	R	I	I	²¹ C	M		U	²² T		
R	E			V			A	L	O	P	O	T	H	A		M	R		
A	O			A			S		L	²³ H	N	E	A	²⁴ T	A	X	O	L	
P	N			²⁵ L	A	C	T	I	D	E			R	I			N		
H				U			I			R		²⁶ A	C	C	²⁷ U	R	A	C	Y
²⁸ C	O	P	P	E	R		R			T			O		R				
	²⁹ P	O	S	I	T	R	O	N	S	Z			A		E				
³⁰ M	U	L	L	I	K	E	N						L		A				

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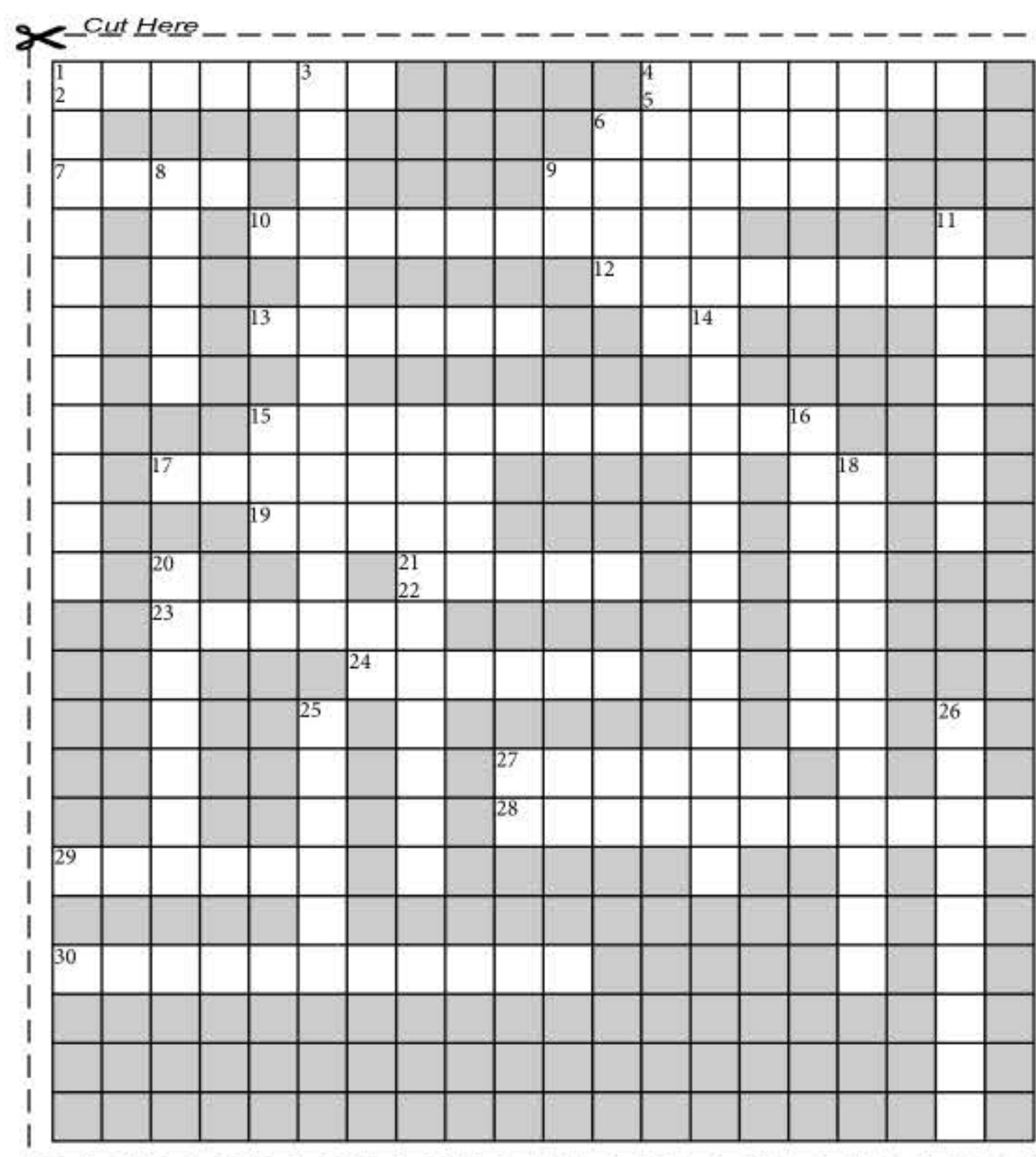
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ACROSS

- Glucoside of indigo, an important vat dye. (7)
- Mixture of evenly dispersed substances. (7)
- Fundamental particles that make up proton and neutron. (6)
- An almost non-crystalline form of quartz or hydrated silica, used as gemstone. (4)
- Most stable form of calcium carbonate, which is also a principal constituent of limestone and marble. (7)
- _____ modified Bohr's theory and gave the concept of elliptical orbits. (10)
- SI unit of radioactivity. (9)
- Solid left behind when urea is heated. (6)
- _____ is used to prepare alkene by heating quaternary ammonium hydroxides. (12)
- A man-made element of the actinide series discovered in 1953. (7)
- The most popular trade name of polycarbonate. (5)
- Naturally occurring mineral form of aluminium oxide which is used to make abrasive powder. (5)
- The common name of 4-methoxybenzyl group, a versatile protecting group for primary alcohols. (6)
- The enzyme used during hydrolysis of ester to form carboxylic acid and alcohol. (6)
- Shape of IO_2F_2 . (6)
- A 4% solution of an inorganic acid in water, used as an antiseptic and eye wash. (11)
- A resin formed by copolymerisation of melamine and formaldehyde. (6)
- The process of converting CO or CO_2 to methane by catalytic reaction with hydrogen under pressure. (11)

DOWN

- A regular geometry of a crystal with 20 faces, 12 vertices and 30 edges. (11)
- Conformational isomers which can be separated due to restricted rotation. (12)
- Recycled or broken glass pieces added during glass making. (6)



- Crude potassium hydrogen tartrate obtained from wine and used in dye industries. (5)
- Common name of bicyclo [4.4.0] decane, usually obtained by catalytic hydrogenation of naphthalene. (7)
- A dye obtained by the oxidation of aniline hydrochloride. (12)
- The name given to pure metal lumps. (7)
- The addition of an oxygen bridge across a double bond to give an oxirane. (11)
- A brown substance formed by heating sugar above its melting point. (7)
- An alloy of chromium, iron and nickel, used for making hairsprings for watches and clocks. (7)
- A homopolysaccharide consisting of glucose monomeric units. (6)
- An occupational disease of those who work with white phosphorus. (9)



SOLUTIONS OF MAY 2017 CROSSWORD

¹ ₂ I	N	D	I	C	³ A	N					⁴ ₅ C	O	L	L	O	I	D		
C					T						⁶ Q	U	A	R	K	S			
⁷ O	P	⁸ A	L		R					⁹ C	A	L	C	I	T	E			
S		R		¹⁰ S	O	M	M	E	R	F	E	L	D				¹¹ D		
A		G			P						¹² B	E	C	Q	U	E	R	E	L
H		O		¹³ B	I	U	R	E	T		T	¹⁴ A						C	
E		L			S							N						A	
D				¹⁵ C	O	P	E	R	E	A	C	T	I	O	¹⁶ N				L
R		¹⁷ F	E	R	M	I	U	M				L		U	¹⁸ E			I	
O				¹⁹ L	E	X	A	N				I		G	P			N	
N		²⁰ C			R		²¹ ₂₂ E	M	E	R	Y		N		G	O			
		²³ A	N	I	S	Y	L					E		E	X				
		R				²⁴ L	I	P	A	S	E		B		T	I			
		A			²⁵ G		N					L		S	D			²⁶ P	
		M			L	V		²⁷ S	E	E	S	A	W		A			H	
		E			U	A		²⁸ B	O	R	I	C	L	O	T	I	O	N	
²⁹ M	E	L	M	A	C		R					K			I			S	
					A										O			S	
³⁰ M	E	T	H	A	N	A	T	I	O	N					N			Y	
																		J	
																		A	
																		W	