

Quotegram puzzle



Avi Ornstein
Classical Magnet School
Hartford, Connecticut

Complete the sentences and then place the letters in the correct boxes in the grid to find a meaningful quote. If you can finish words in the quote, you can work in reverse to complete sentences that may be giving you a problem.

- Ice floats due to its $\frac{\quad}{17} \frac{\quad}{81} \frac{\quad}{37} \frac{\quad}{43} \frac{\quad}{101} \frac{\quad}{55} \frac{\quad}{70}$.
- For safety, when doing an experiment, students should wear lab $\frac{\quad}{87} \frac{\quad}{40} \frac{\quad}{104} \frac{\quad}{27} \frac{\quad}{83}$.
- A classic demo on polymers compares a ball that bounces to one that goes $\frac{\quad}{38} \frac{\quad}{2} \frac{\quad}{91} \frac{\quad}{61}$.
- A halogen that is radioactive is $\frac{\quad}{32} \frac{\quad}{11} \frac{\quad}{105} \frac{\quad}{44} \frac{\quad}{77} \frac{\quad}{26} \frac{\quad}{60} \frac{\quad}{31}$.
- Tom Sawyer used a solution of lime (calcium oxide) and water to $\frac{\quad}{39} \frac{\quad}{95} \frac{\quad}{10} \frac{\quad}{102} \frac{\quad}{62} \frac{\quad}{18} \frac{\quad}{73} \frac{\quad}{24} \frac{\quad}{53}$ a wooden fence.
- A $\frac{\quad}{23} \frac{\quad}{16} \frac{\quad}{97} \frac{\quad}{7} \frac{\quad}{41} \frac{\quad}{76} \frac{\quad}{33} \frac{\quad}{88}$ is an uncharged subatomic particle with a mass close to zero.
- A solute causes the freezing point of a solution to be $\frac{\quad}{107} \frac{\quad}{50} \frac{\quad}{71} \frac{\quad}{63} \frac{\quad}{58} \frac{\quad}{92} \frac{\quad}{64} \frac{\quad}{3} \frac{\quad}{46}$.
- A $\frac{\quad}{90} \frac{\quad}{13} \frac{\quad}{45} \frac{\quad}{80} \frac{\quad}{93} \frac{\quad}{30}$ is used in a lab to guide a liquid into a narrow container.
- An alkaline earth that gives a brilliant red color to fireworks is $\frac{\quad}{15} \frac{\quad}{75} \frac{\quad}{57} \frac{\quad}{67} \frac{\quad}{47} \frac{\quad}{20} \frac{\quad}{103} \frac{\quad}{25} \frac{\quad}{4}$.
- Radioactive $\frac{\quad}{68} \frac{\quad}{106} \frac{\quad}{74} \frac{\quad}{28} \frac{\quad}{9}$ is the breakdown of unstable atoms.
- $\frac{\quad}{94} \frac{\quad}{78} \frac{\quad}{65} \frac{\quad}{84} \frac{\quad}{98} \frac{\quad}{19} \frac{\quad}{22} \frac{\quad}{49}$ is a hard silver-grey metal that is used in strong, light, corrosion-resistant alloys.
- $\frac{\quad}{34} \frac{\quad}{48} \frac{\quad}{8} \frac{\quad}{29} \frac{\quad}{79} \frac{\quad}{89} \frac{\quad}{5} \frac{\quad}{12}$ $\frac{\quad}{54} \frac{\quad}{1} \frac{\quad}{99} \frac{\quad}{42}$ gives soda its fizz.
- An $\frac{\quad}{56} \frac{\quad}{14} \frac{\quad}{72} \frac{\quad}{21} \frac{\quad}{96} \frac{\quad}{85} \frac{\quad}{35} \frac{\quad}{59} \frac{\quad}{51}$ acid dissociates in water to form hydrogen ions.
- According to the theory of $\frac{\quad}{69} \frac{\quad}{82} \frac{\quad}{66} \frac{\quad}{100} \frac{\quad}{6} \frac{\quad}{52} \frac{\quad}{36} \frac{\quad}{86}$ and Lowry, an acid is a proton donor.

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
28	29	30	31		32	33	34	35	36	37	38		39	40	41	42	43		44	45	46		47	48	49	50	51		52	53
54	55		56	57	58		59	60	61	62	63	64	65	66	67	68		69	70		71	72	73	74	75	76	77	78	79	80
81	82	83		84	85	86		87	88	89	90	91	92	93		94	95	96		97	98	99	100	101	102	103	104	105	106	107

Enter your students' correct solutions into a draw on or before April 1, 2019. The prize is Periodic Table Playing Cards to be awarded to the student and teacher. The prize is donated by Educational Innovations. For more information about this prize go to www.teachersource.com. Please have your students print their names clearly and send your students' solutions to: *Chem 13 News*, Quotegram puzzle, Department of Chemistry, University of Waterloo, Waterloo, Ontario, N2L 3G1, Canada; or email kjackson@uwaterloo.ca. ■