## **SPECIAL May 2020 - PUZZLES No 33 Famous Scientists**

With Standard and Cryptic Clues

By Roy Arnott & Ken Greatorex

1	2			3													4				
								5			6				7						
													8								
								9													
			10																		
			10																		
										11									12		
													13								14
	15					16															
	13					10															
17															18						
								19				20									
21		22													23						
21		22													23						
										24											
				25																	
									26												
									26												
	27																	28		29	
							30					31	32								
		22																			
		33																			
																34			35		
						36				37								38			
												39		40							
																		41			
		42																			
												43									
					44																

Standard Clues: page 2 Cryptic Clues: page 4

Solution: page 6

## STANDARD CLUES

#### **ACROSS:**

- 1. See 44 across
- 7. See 2 down
- 9. See 32 down
- 10. & 42 across: New Zealand born, he was a pioneer of nuclear physics, and won the 1908 Nobel Prize in Chemistry for his theory of atomic structure [6, 10]
- 11. & 4 down: Danish physicist who received a Nobel Prize for his work on atomic structure and quantum theory [5, 4]
- 13. See 17 down
- 15. See 27 across
- 18. See 23 across
- 19. & 20 down: English cosmologist, author of A Brief History of Time [7, 7]
- 21. & 40 down & 25 down: Italian Renaissance polymath who contributed to mathematics, engineering, literature, anatomy, geology, astronomy and botany as well as painting and sculpture [8, 2, 5]
- 23. & 18 across: German astronomer who gave us three Laws of Planetary Motion [8, 6]
- 24. See 28 across
- 26. See 38 across
- 27. & 15 across: English chemist, physicist, and meteorologist who was a school teacher in his day job. He proposed an Atomic Theory from which modern ideas of atomic structure developed; also researched colour blindness [4, 5]
- 28. & 24 across: He gave us a Theory of Universal Gravitation and three Laws of Motion. He also discovered the mathematical calculus [5, 6]
- 31. & 39 across: Born in Moravia (modern Czech Republic). His experiments with peas enabled him to explain heredity using simple whole numbers [6, 6]
- 33. Ancient Greek philosopher whose "Natural Philosophy" took in Physics, Astronomy, Biology and Geology [9]
- 36. See 35 down
- 38. & 26 across: Polish-French physicist. She was the first woman to win a Nobel Prize, the first person and only woman to win twice and the only person to win a Nobel Prize in two different sciences [5, 5]
- 39. See 31 across
- 42. See 10 across
- 43. See 26 down
- 44. & 1 across: English scientist who pioneered the study of electricity and magnetism and how they are related. He invented the electric motor [7, 7]

#### DOWN:

- 2. & 7 across: English scientist and architect. He is best known for his Law about elasticity, his observations and drawings made while looking through a microscope and his use of the word "cells" to describe what he saw. [6, 5]
- 2. & 30 down: Anglo-Irish scientist, often regarded as the first modern chemist. Best known for his Gas Laws [6, 5]
- 3. & 8 down: German-born theoretical physicist who gave us the Theory of Relativity [6, 8]
- 4. See 11 across
- 5. See 14 down
- 6. See 37 down
- 8. See 3 down
- 12. See 22 down
- 14. & 5 down: Pioneering French microbiologist who discovered the principles of vaccination, microbial fermentation and pasteurization [5, 7]
- 16. & 41 down: Serbian-American inventor, electrical engineer, mechanical engineer, physicist, and visionary; the major contributor to establishing modern alternating current electricity supply systems [6, 5]
- 17. & 13 across: Irish physicist best known for developing Laws of thermodynamics and establishing Absolute Zero temperature as -273°C. He became Lord Kelvin [7, 8]
- 20. See 19 across
- 22. & 12 down: Polish mathematician and astronomer whose model of the universe put the Sun, not the Earth at the centre of the universe [8, 10]
- 25. See 21 across
- 26. & 43 across: Swedish biologist whose systematic approach to classifying and naming living things made him "father of modern taxonomy" [4, 8]
- 29. Famous quotes include "Eureka!" and "Give me a place to stand, and I shall move the world" [10]
- 30. See 2 down
- 32. & 9 across: Austrian physicist who developed the Quantum Mechanical Model of the atom. He also had a famous "pretend" cat [5, 11]
- 34. He made the first observation of the rings of Saturn and the moons of Jupiter with his telescope [7]
- 35. & 36 across: German theoretical physicist whose discovery of energy quanta won him the Nobel Prize in Physics in 1918 [3, 6]
- 37. & 6 down: English biologist and geologist, best known for his Theory of Evolution by Natural Selection [7, 6]
- 40. See 21 across
- 41. See 16 down

## **CRYPTIC CLUES**

### **ACROSS:**

- 1. See 44 across
- 7. See 2 down
- 9. See 32 down
- 10. & 42 across: Chemist produces frothed returners [6, 10]
- 11. & 4 down: Atomic scientist modifies NHS boiler [5, 4]
- 13. See 17 down
- 15. See 27 across
- 18. See 23 across
- 19. & 20 down: Advertising Sondheim? [7, 7]
- 21. & 40 down & 25 down: Painter I can associate wrongly with vain doodler [8, 2, 5]
- 23. & 18 across: Hank enrols jeep to find astronomer [8, 6]
- 24. See 28 across
- 26. See 38 across
- 27. & 15 across: Halt Jon Don theorising atoms [4, 5]
- 28. & 24 across: Was it one can ordered by the scientist? [5, 6]
- 31. & 39 across: Botanist had longer merged results [6, 6]
- 33. Ancient Greek totaliser broken-down [9]
- 36. See 35 down
- 38. & 26 across: A mere uric I formed for chemist [5, 5]
- 39. See 31 across
- 42. See 10 across
- 43. See 26 down
- 44. & 1 across: Hamada fireclay used for electric motor inventor. [7, 7]

#### DOWN:

- 2. & 7 across: Book or three about spokesman for law's elasticity [6, 5]
- 2. & 30 down: Beery lot rob gas law champion [6, 5]
- 3. & 8 down: Name found in compilation of elite brain set [6, 8]
- 4. See 11 across
- 5. See 14 down
- 6. See 37 down
- 8. See 3 down
- 12. See 22 down

- 14. & 5 down: A French chemist? Spurious tale [5, 7]
- 16. & 41 down: Not alkalies to set up alternating current [6, 5]
- 17. & 13 across: All whom mispoint to find absolute zero [7, 8]
- 20. See 19 across
- 22. & 12 down: Parhelic concussion is heliocentrist [8, 10]
- 25. See 21 across
- 26. & 43 across: Run alliances to find taxonomist [4, 8]
- 29. Man of principle removing name from shoddy merchandise [10]
- 30. See 2 down
- 32. & 9 across: His cat had a 50/50 chance [5, 11]
- 34. Italy's star man left goalie floundering [7]
- 35. & 36 across: Sounds like largest board for physicist [3, 6]
- 37. & 6 down: Naturalist in wandering saw richer land [7, 6]
- 40. See 21 across
- 41. See 16 down

# SOLUTION

F	Α	R	Α	D	Α	Υ													В					
		0			L				Р			О					Η	0	0	K	Е			
		В			В				Α			Α			Е				Ξ					
		Ε			Е				S	С	Н	R	0	D	Ι	N	G	Е	R					
		R		Е	R	Ν	Е	S	Т			W			N									
		Т			Т				Е		N	Ι	Е	L	S						С			
									U			N			Т	Н	0	М	Р	S	0	N		L
		D	Α	L	Т	0	Ν		R						Е						Р			0
W							Ι								Ι		K	Е	Р	L	Е	R		U
Ι							K		S	Т	Е	Р	Н	Е	N						R			Ι
L	Е	О	Ν	Α	R	D	0						Α				J	0	Н	Α	N	N	Е	S
L			Ι				L				N	Е	W	Т	0	N					Ι			
Ι			С		٧		Α						K								$\cup$			
Α			Н		Ι					С	J	R	Ι	Ш							כ			
М		J	0	Н	N					Α			Z							Ι	S	Α	Α	С
			L		С			В		R			G	R	Е	G	0	R					R	
			Α	R	Ι	S	Т	0	Т	L	Е				R								$\cup$	
			S					Υ							W			G			Μ		Τ	
							Р	L	Α	Ν	U	K			Ι			Α		Μ	Α	R	Ι	Е
								Е			Η		Μ	ш	Ν	D	ш	L			Χ		Μ	
											Α					Α		Ι		Т			Е	
			R	U	Т	Н	Е	R	F	0	R	D						L		Е			D	
											L		L	Ι	N	N	Α	Е	U	S			Е	
						М	Ι	С	Н	Α	Е	L						0		L			S	
											S									Α				