

Examination results Summer 2022 Science AS, A-level and GCSE

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GCSE results statistics: Combined sciences

GCSE statistics **2022**, with data from **2021 (TAGs)**, **2020(CAGs)** and **2019** for comparison. Cumulative percentages at each grade. Figures in brackets are the difference between **2022 and 2021** and 2021 and 2019.

Grade Total Grade Grade Grade Grade Grade Grade Grade Grade 8 entries 1 2 3 4 5 6 7 9 337 346 98.2 (-0.9) 94.0 (-0.4) 83.2 (-0.5) 60.8 (-4.6) 39.4 (-3.3) 20.7 (-3.4) 10.4 (-2.3) 4.4 (-1.0) 1.3 (-0.3) Combined 331 805 99.1 (+1.0) 94.4 (+2.3) 83.7 (+6.0) 65.4 (+9.4) 42.7 (+7.8) 24.1 (+7.3) 12.7 (+5.1) 5.4 (+2.3) 1.6(+0.7)Trilogy* 321 606 99.6 95.5 84.7 64.9 41.8 22.3 10.8 4.5 1.4 303 207 77.7 7.6 98.1 92.1 56.0 34.9 16.8 3.1 0.9 6324 69.8 (-5.4) 6.0 (-1.9) 1.9 (-1.3) 0.4 (-0.2) 95.9 (-1.9) 86.5 (-3.2) 46.0 (-6.1) 28.4 (-1.7) 13.0 (-1.6) Combined 6175 97.8 (+1.2) 89.7 (+3.0) 75.2 (+7.8) 52.1 (+10.7) 30.1 (+8.6) 14.6 (+6.4) 7.9 (+4.2) 3.2 (+2.0) 0.6 (+0.3) Synergy* 6958 99.2 90.9 74.0 50.0 27.1 11.7 5.4 1.9 0.4 6138 96.6 67.4 41.4 21.5 8.2 3.7 1.2 0.3 86.7

*For Combined Science, these are double grades (1-1, 2-2 etc). Intermediate grades (1-2, 2-3 etc) not included

There has been an increase in the number of entries as the number of unique centres entering AQA science has continued to grow as well as the student population increasing.

There has been a change in the **entry split between Foundation and Higher since 2019**. There has been an increase in the number of students entered for Higher tier.

	2019	2020 (CAGs)	2021 (TAGs)	2022 Exams
Foundation	63%	61%	58%	59%
Higher	37%	38%	42%	41%

GCSE results statistics: separate sciences

GCSE statistics **2022**, with data from **2021 (TAGs)**, **2020 (CAGs)** and **2019** for comparison. Cumulative percentages at each grade. Figures in brackets are the difference between **2022 and 2021** and **2021** and **2019**

	Total	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade
	entries	1	2	3	4	5	6	7	8	9
Biology	141006	99.5(-0.2)	98.7 (-0.3)	96.6 (-0.8)	91.9 (-2.0)	84.5 (-2.3)	69.3 (-4.9)	49.7 (-6.6)	31.8 (-5.0)	16.0 (-2.4)
	138 825	99.7 (+0.3)	99.0 (+0.7)	97.4 (+1.4)	93.9 (+3.8)	86.8 (+6.4)	74.2 (+10.5)	56.3 (+13.5)	36.8 (+9.9)	18.4 (+5.9)
	132 640	99.9	99.4	98.0	94.7	87.2	73.2	53.0	33.6	16.8
	130 938	99.4	98.3	96.0	90.1	80.4	63.7	42.8	26.9	12.5
Chemistry	134774	99.7 (-0.1)	99.0 (-0.2)	97.2 (-0.5)	93.0 (-1.1)	83.6 (-2.3)	67.6 (-4.9)	49.6 (-5.1)	32.5 (-2.9)	15.9 (–1.8)
	133 520	99.8 (+0.3)	99.2 (+0.4)	97.7 (+0.8)	94.1 (+3.8)	85.9 (+6.9)	72.5 (+10.3)	54.7 (+10.2)	35.4 (+7.4)	17.7 (+4.5)
	127 076	100.0	99.7	98.7	95.8	87.6	72.6	53.3	33.7	16.8
	126 276	99.5	98.8	96.9	90.3	79.0	62.2	44.5	28.0	13.2
Physics	134655	99.6 (-0.2)	99.1 (-0.3)	97.8 (-0.5)	93.9 (-1.4)	85.6 (-2.0)	70.4 (-3.6)	50.2 (-5.3)	32.9 (-2.6)	15.5 (-1.7)
	132 965	99.8 (+0.3)	99.4 (+0.5)	98.3 (+0.9)	95.3 (+4.2)	87.6 (+8.3)	74.0 (+11.5)	55.5 (+11.3)	35.5 (+7.8)	17.2 (+4.6)
	126 609	100.0	99.8	99.0	96.1	88.1	72.9	53.1	33.2	16.4
	125 656	99.5	98.9	97.4	91.1	79.3	62.5	44.2	27.7	12.6

There has been an increase in the number of entries as the number of unique centres entering AQA science has continued to grow as well as the student population increasing.

There has been less change in the **entry split between Foundation and Higher since 2019 for the separate sciences**. The slight increase in the number of students entered for Higher tier has nearly adjusted back to the 2019 pattern.

Biology	2019	2020 (CAGs)	2021 (TAGs)	2022 Exams
Foundation	15%	14%	12%	14%
Higher	85%	84%	88%	86%

Chemistry	2019	2020 (CAGs)	2021 (TAGs)	2022 Exams
Foundation	15%	13%	11%	14%
Higher	85%	87%	89%	86%

Physics	2019	2020 (CAGs)	2021 (TAGs)	2022 Exams
Foundation	15%	12%	10%	12%
Higher	85%	87%	90%	87%

Combined Science: Trilogy (8464) 420 marks									
Grade	2018	2019	2020	2020 2021 2					
			Exceptional N	lov series					
Higher									
9-9	289	269	262	258	276				
7-7	213	199	190	181	202				
5-5	1361	123	117	109	126				
4-4	98	87	81	91	89				
Foundation									
5-5	253	243	231	230	242				
4-4	218	200	185	208	203				
1-1	71	41	36	39	40				

GCSE grade boundary comparisons 2018–2022

Combined Science: Synergy (8465) 400 marks									
Grade	2018	2019	2020 2021 2022						
			Exceptional N	lov series					
Higher									
9-9	248	234	255	257	263				
7-7	177	175	168	165	186				
5-5	109	111	106	103	118				
4-4	77	81	76	73	86				
Foundation									
5-5	229	238	227	224	240				
4-4	194	198	185	185	207				
1-1	48	44	36	40	51				

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Biology (8461) 200 marks									
Grade	2018	2019	2020	2021	2022				
			Exceptional I	Nov series					
Higher									
9	132	134	131	130	132				
7	102	107	101	98	104				
5	69	72	63	64	68				
4	53	55	45	48	51				
Foundation									
5	121	130	122	119	126				
4	107	114	101	102	109				
1	26	21	16	18	20				

Chemistry (8462) 200 marks									
Grade	2018	2019	2020 2021 2022						
			Exceptional N	lov series					
Higher									
9	150	144	139	138	144				
7	112	107	98	96	103				
5	72	69	58	58	58				
4	52	50	38	39	36				
Foundation									
5	127	133	123	121	126				
4	109	115	98	100	104				
1	24	21	15	18	20				

Physics (8463) 200 marks									
Grade	2018	2019	2020	2021	2022				
			Exceptional N	lov series					
Higher									
9	135	143	140	142	150				
7	103	108	101	102	119				
5	68	70	60	62	77				
4	51	51	40	43	56				
Foundation									
5	123	129	123	122	135				
4	107	111	98	100	115				
1	27	20	16	16	21				

Results statistics: AS, A-level and Applied General

AS and A-level statistics 2022 with data from 2021 (TAGs), 2020 (CAGs) and 2019 for comparison. Cumulative percentages at each grade. Figures in brackets are the difference between 2022 and 2021 and 2021 and 2019

		Total entries	Grade E	Grade D	Grade C	Grade B	Grade A	Grade A*
AS Biology	2022 2021 2020 2019	3206 2463 3093 4772	87.1 (-5.5) 92.6 (+10.6) 95.7 81.2	71.0 (-9.1) 80.1 (+14.2) 84.8 65.9	54.6 (-9.3) 63.9 (+15.6) 68.0 48.3	36.9 (-8.4) 45.3 (+13.8) 45.8 31.5	21.9 (-4.0) 25.9 (+9.1) 24.8 16.8	
A-level Biology	2022 2021 2020 2019	36 129 34 822 31 539 33 381	97.7 (-1.8) 99.5 (+3.9) 99.7 95.6	89.3 (-5.9) 95.2 (+10.5) 95.3 84.7	74.2 (-11.3) 85.5 (+19.8) 83.5 65.7	54.6 (-13.1) 67.7 (+24.1) 61.7 43.6	33.7 (-10.2) 43.9 (+20.5) 36.8 23.4	12.7 (-5.1) 17.8 (+11.2) 13.0 6.6

		Total entries	Grade E	Grade D	Grade C	Grade B	Grade A	Grade A*
AS Chemistry	2022 2021 2020 2019	2004 1434 1970 3399	88.3 (-7.3) 95.6 (+13.5) 97.4 82.1	75.4 (-8.4) 83.8 (+15.5) 88.0 68.3	58.5 (-9.5) 68.0 (+15.6) 74.4 52.4	42.6 (-7.3) 49.9 (+14.0) 55.1 35.9	24.7 (-7.3) 32.0 (+12.3) 31.0 19.7	
A-level Chemistry	2022 2021 2020 2019	24 873 24 833 23 223 24 705	97.7 (-1.7) 99.4 (+3.7) 99.6 95.7	90.4 (-4.7) 95.1 (+8.7) 95.6 86.4	77.7 (-8.9) 86.6 (+15.4) 85.6 71.2	59.8 (-11.1) 70.9 (+19.9) 66.3 51.0	37.6 (-11.3) 48.9 (+20.7) 41.5 28.2	13.1 (-6.9) 20.0 (+13.0) 14.1 7.0

		Total entries	Grade E	Grade D	Grade C	Grade B	Grade A	Grade A*
AS Physics	2022 2021 2020	1706 1553 2384	87.0 (-8.6) 95.6 (+13.8) 96.5	72.6 (-13.5) 86.1 (+17.9) 85.1	56.4 (–15.1) 71.5 (+17.7) 70.8	40.4 (-13.8) 54.2 (+17.1) 50.9	27.0 (–7.5) 34.5 (+11.7) 30.8	
	2019	3239	81.8	68.2	53.8	37.1	22.8	
	2022 2021	20 805 21 244	97.5 (–2.0) 99.5 (+4.0)	89.9 (–5.1) 95.0 (+8.7)	76.3 (–9.6) 85.9 (+15.4)	58.3 (–10.8) 69.1 (+18.4)	39.0 (-7.6) 46.6 (+18.7)	16.4 (–5.2) 21.6 (+12.9)
A-level Physics	2020	19 946	99.6	94.9	84.0	65.0	41.4	17.2
	2019	20 385	95.5	86.3	70.5	50.7	27.9	8.7

		Total entries	Grade E	Grade D	Grade C	Grade B	Grade A	Grade A*
AS Environmental Science	2021 2020 2019	226 242 332	92.9 (+12.2) 95.5 80.7	80.1 (+16.5) 85.1 63.6	59.7 (+15.7) 65.7 44.0	36.3 (+10.1) 38.8 26.2	14.2 (+4.6) 15.3 9.6	
A-level Environmental Science	2022 2021 2020 2019	1239 1164 881 876	96.6 (-2.9) 99.5 (+5.6) 99.1 93.9	87.2 (-6.4) 93.6 (+14.8) 92.3 78.8	67.8 (-8.9) 76.7 (+22.7) 72.5 54.0	43.6 (-7.6) 51.2 (+24.4) 43.9 26.8	17.3 (–5.2) 22.5 (+13.7) 18.4 8.8	5.7 (-1.6) 7.3 (+4.9) 5.1 2.4

✤ No data for AS Environmental science as last certification was 2021

		Total entries	Pass	Merit	Distinction	Distinction*
Applied General Science Certificate	2022 2021 2020 2019	481 570 991 1513	55.9 (–38.3) 94.2 (+28.3) 95.8 65.9	21.8 (-27.7) 49.5 (+34.1) 49.2 15.4	1.5 (-19.2) 20.7 (+20.4) 7.4 0.3	0.2 (-0.5) 0.7 (+0.7) 0.6 0.0
Applied General Science Extended Certificate	2022 2021 2020 2019	673 1018 1142 1320	84.1 (-13.7) 97.8 (+16.4) 98.2 81.4	44.0 (-21.5) 65.5 (+33.2) 54.6 32.3	7.1 (-14.6) 21.7 (+19.9) 7.4 1.8	0.3 (-0.5) 4.8 (4.7) 0.4 0.1

A-level grade boundary comparisons 2018–2022

Biology (7402	Biology (7402) 260 marks							
Grade	2018	2019	2020	2021	2022			
			Exceptional	Nov series				
A*	166	178	170	168	173			
А	138	149	138	136	142			
В	116	125	114	113	115			
С	94	101	90	91	89			
D	72	77	67	69	63			
E	50	53	44	47	37			

Chemistry (74	Chemistry (7404) 300 marks								
Grade	2018	2019	2020	2021	2022				
			Exceptional Nov series						
A*	241	246	235	236	237				
А	198	206	192	192	196				
В	163	170	157	158	158				
С	128	135	123	124	121				
D	94	100	89	90	84				
E	60	65	55	56	47				

Physics *Astr	Physics *Astro Physics (7408A) marks							
Grade	2018	2019	2020	2021	2022			
			Exceptional	Nov series				
A*		198	188	188	167			
А		171	158	158	137			
В		143	129	129	113			
С		116	100	101	89			
D		89	72	73	66			
Е		62	44	45	43			

* Grade boundaries shown for Astro Physics option only as an example

Environmental Science (7447) 240 marks							
Grade	2018	2019	2020	2021	2022		
			Exceptional	Nov series			
A*		171	162	158	164		
А		156	140	136	146		
В		132	117	114	120		
С		108	94	92	95		
D		85	72	71	70		
E		62	50	50	45		

Notes



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