

Science GCSEs at Fareham Academy

Double Award Route (Trilogy)

- 6 exams (Yr11)
- 2 exams for B/C/P (H+F)
- 75mins - each exam
- Practical work assessed through exams
- No coursework
- 8x lessons per fortnight

Triple Award Route (Separate Sciences)

- 6 exams (Yr11)
- 2 exams for B/C/P (H)
- 105mins - each exam
- Practical work assessed through exams
- No coursework
- 8x lessons per fortnight + x6 as option time



Literacy...

Maths skills in Biology = ~10%,
Chemistry ~20% and Physics = ~30%



YELLOW



BLUE

ORANGE

ORANGE

YELLOW

BLUE

BLUE

ORANGE



YELLOW

BLACK



WHITE

PURPLE

CYAN

GREEN



PINK

RED

RED

RED

RED

RED



Do you remember?

1. What colour was the traffic light on?
2. What colour was the writing of the word on the top right – did this match with the word that was written?
3. What colour was the ice cream?
4. What was the word colour of the bottom row?
5. Name one colour that was different from the word that was actually written?
6. What was the emoji face of?
7. What was the word and colour 3rd row 2 in?



What does teaching and learning look like in Science?

- “The organization builds upon a deep understanding of science and learning”

What do we want?

- Clear teaching and learning objectives
- High quality resources
- Engaging and differentiated activities
- Homework to support learning
- Clear assessment and feedback
- Time for reflection and evaluation to improve practice
- General support...

What do we want from all students?!



6x exams?!?!?



How to succeed in GCSE Science:

- 100% attendance (catch up after absence – really important – google classroom)
- Complete homework in line with schedule set (class chart log in for all)
- CGP revision guides *and* work books
- GCSE pod
- SENECA
- BBC bitesize
- Revision timetable
- Flash cards/mnemonics/songs/post-its/mind maps ETC x1000000... **RETENTION!!!!!!**
- Free science lessons: https://www.youtube.com/channel/UCqbOeHaAUXw9II7sBVG3_bw
- Exam Q (will form a big part of in class work)
- AQA specifications
- Communication with your teacher!!!

****** All of the above – little and often to tackle the volume of content******



The Periodic Table of Elements

1	2											3	4	5	6	7	0		
		Key relative atomic mass atomic symbol name atomic (proton) number																1 H hydrogen 1	4 He helium 2
7 Li lithium 3	9 Be beryllium 4											11 B boron 5	12 C carbon 6	14 N nitrogen 7	16 O oxygen 8	19 F fluorine 9	20 Ne neon 10		
23 Na sodium 11	24 Mg magnesium 12											27 Al aluminium 13	28 Si silicon 14	31 P phosphorus 15	32 S sulfur 16	35.5 Cl chlorine 17	40 Ar argon 18		
39 K potassium 19	40 Ca calcium 20	45 Sc scandium 21	48 Ti titanium 22	51 V vanadium 23	52 Cr chromium 24	55 Mn manganese 25	56 Fe iron 26	59 Co cobalt 27	59 Ni nickel 28	63.5 Cu copper 29	65 Zn zinc 30	70 Ga gallium 31	73 Ge germanium 32	75 As arsenic 33	79 Se selenium 34	80 Br bromine 35	84 Kr krypton 36		
85 Rb rubidium 37	88 Sr strontium 38	89 Y yttrium 39	91 Zr zirconium 40	93 Nb niobium 41	96 Mo molybdenum 42	[98] Tc technetium 43	101 Ru ruthenium 44	103 Rh rhodium 45	106 Pd palladium 46	108 Ag silver 47	112 Cd cadmium 48	115 In indium 49	119 Sn tin 50	122 Sb antimony 51	128 Te tellurium 52	127 I iodine 53	131 Xe xenon 54		
133 Cs caesium 55	137 Ba barium 56	139 La* lanthanum 57	178 Hf hafnium 72	181 Ta tantalum 73	184 W tungsten 74	186 Re rhenium 75	190 Os osmium 76	192 Ir iridium 77	195 Pt platinum 78	197 Au gold 79	201 Hg mercury 80	204 Tl thallium 81	207 Pb lead 82	209 Bi bismuth 83	[209] Po polonium 84	[210] At astatine 85	[222] Rn radon 86		
[223] Fr francium 87	[226] Ra radium 88	[227] Ac* actinium 89	[261] Rf rutherfordium 104	[262] Db dubnium 105	[266] Sg seaborgium 106	[264] Bh bohrium 107	[277] Hs hassium 108	[268] Mt meitnerium 109	[271] Ds darmstadtium 110	[272] Rg roentgenium 111	[285] Cn copernicium 112	[286] Nh nihonium 113	[289] Fl flerovium 114	[289] Mc moscovium 115	[293] Lv livermorium 116	[294] Tl tennessine 117	[294] Og oganesson 118		



Physics Equations Sheet

GCSE Combined Science: Trilogy (8464)
GCSE Combined Science: Synergy (8465)

1	(final velocity) ² – (initial velocity) ² = 2 × acceleration × distance	$v^2 - u^2 = 2 a s$
2	elastic potential energy = 0.5 × spring constant × (extension) ²	$E_e = \frac{1}{2} k e^2$
3	change in thermal energy = mass × specific heat capacity × temperature change	$\Delta E = m c \Delta \theta$
4	period = $\frac{1}{\text{frequency}}$	
5	force on a conductor (at right angles to a magnetic field) carrying a current = magnetic flux density × current × length	$F = B I l$
6	thermal energy for a change of state = mass × specific latent heat	$E = m L$
7	potential difference across primary coil × current in primary coil = potential difference across secondary coil × current in secondary coil	$V_p I_p = V_s I_s$



Physics Equations Sheet GCSE Physics (8463)

1	pressure due to a column of liquid = height of column \times density of liquid \times gravitational field strength (g)	$p = h \rho g$
2	(final velocity) ² – (initial velocity) ² = 2 \times acceleration \times distance	$v^2 - u^2 = 2 a s$
3	force = $\frac{\text{change in momentum}}{\text{time taken}}$	$F = \frac{m \Delta v}{\Delta t}$
4	elastic potential energy = 0.5 \times spring constant \times (extension) ²	$E_e = \frac{1}{2} k e^2$
5	change in thermal energy = mass \times specific heat capacity \times temperature change	$\Delta E = m c \Delta \theta$
6	period = $\frac{1}{\text{frequency}}$	
7	magnification = $\frac{\text{image height}}{\text{object height}}$	
8	force on a conductor (at right angles to a magnetic field) carrying a current = magnetic flux density \times current \times length	$F = B I l$
9	thermal energy for a change of state = mass \times specific latent heat	$E = m L$
10	$\frac{\text{potential difference across primary coil}}{\text{potential difference across secondary coil}} = \frac{\text{number of turns in primary coil}}{\text{number of turns in secondary coil}}$	$\frac{V_p}{V_s} = \frac{n_p}{n_s}$
11	potential difference across primary coil \times current in primary coil = potential difference across secondary coil \times current in secondary coil	$V_p I_p = V_s I_s$
12	For gases: pressure \times volume = constant	$p V = \text{constant}$



Any Questions

