planner-diploma-class-of-2023

SL

For all students:
SL and HL

Lesson number	Date	Unit	Lesson name
2	Mon 23 Aug	Unit 4	Course intro. Getting started.
3	Tue 24 Aug	Unit 4	Datatypes, variables, constants, assignment
6	Mon 30 Aug	Unit 4	Arithmetic operations, operator precedence
7	Thu 02 Sep	Unit 4	Arithmetic operations, operator precedence
8	Mon 06 Sep	Unit 4	Strings, user input, string operations
9	Tue 07 Sep	Unit 4	Strings, user input, string operations
10	Thu 16 Sep	Unit 4	Booleans & Selection: If, else, if else
13	Mon 20 Sep	Unit 4	Selection: If, else, if else
14	Tue 21 Sep	Unit 4	Iteration: While loops
15	Mon 27 Sep	Unit 4	Iteration: For loops
16	Mon 04 Oct	Unit 4	Iteration: Exercises
17	Tue 05 Oct	Unit 4	Arrays: Define, basic operations
20	Mon 18 Oct	Unit 4	Arrays: Looping, totalling, counting, average/max/min etc
21	Thu 21 Oct	Unit 4	Arrays: Exercises
22	Mon 25 Oct	Unit 4	Arrays: Exercises
23	Tue 26 Oct	Unit 4	Test review
25	Mon 01 Nov	Unit 4	Java programming test
26	Thu 04 Nov	Unit 4	Functions
27	Mon 08 Nov	Unit 4	Functions
28	Tue 09 Nov	Unit 4	Functions
29	Mon 22 Nov	Unit 4	Thinking procedurally, logically, concurrently, ahead, abstractly
31	Thu 25 Nov	Unit 4	Program design: Introducing pseudo code, flow charts, trace tables
32	Mon 29 Nov	Unit 4	Program design: Pseudo exercises
33	Tue 30 Nov	Unit 4	Program design: Flow chart exercises
34	Mon 06 Dec	Unit 4	Program design: Trace table exercises
35	Thu 09 Dec	Unit 4	Program design: Scenario exercise: Pseudo, trace, Java
38	Mon 13 Dec	Unit 4	Program design: Scenario exercise: Flowchart, trace, Java
39	Tue 14 Dec	Unit 4	Standard algorithms: Sequential & binary search
			Term holiday
40	Mon 10 Jan	Unit 4	Standard algorithms: Search practice
41	Thu 13 Jan	Unit 4	Standard algorithms: Selection & bubble sort
42	Mon 17 Jan	Unit 4	Standard algorithms: Sort practice
45	Tue 18 Jan	Unit 4	Test review
46	Mon 24 Jan	Unit 4	Test
47	Thu 27 Jan	Unit 4	(buffer)
48	Mon 07 Feb	Unit 4	Algorithm efficiency & big-o
49	Tue 08 Feb	Unit 4	Algorithm efficiency & big-o
52	Mon 14 Feb	Unit 4	Nature of programming languages (high/low)
53	Thu 17 Feb	Unit D	Introducing OOP. Objects and classes as an abstraction
54	Mon 21 Feb	Unit D	Encapsulation, Inheritance, Polymorphism
55	Tue 22 Feb	Unit D	Class relationships & hierarchy (UML)

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56	Mon 28 Feb	Unit D	Review exercises
59	Thu 03 Mar	Unit D	Creating classes and objects in Java
60	Mon 07 Mar	Unit D	Encapsulation in Java (access modifiers)
61	Tue 08 Mar	Unit D	Inheritance in Java (super)
62	Mon 14 Mar	Unit D	Java exercises
63	Thu 17 Mar	Unit D	Polymorphism in Java
66	Mon 21 Mar	Unit D	Dependency in Java
67	Mon 22 Mar	Unit D	Aggregation in Java
68	Mon 28 Mar	Unit D	Asssocation in Java
69	Thu 31 Mar	Unit D	Serialisation, Practice exercises for OOP in Java
		Term holiday	
72	Mon 18 Apr	Unit D	Practice exercises for OOP in Java
73	Tue 19 Apr	Unit D	Practice exercises for OOP in Java
74	Mon 25 Apr	Unit D	Paper 2 style test
75	Thu 28 Apr	Unit D	OOP test post-mortem
76	Tue 03 May	Unit 1	SDLC and requirements analysis
79	Thu 12 May	Unit 1	Data flow diagrams
80	Mon 16 May	Unit 1	Data flow diagrams
81	Tue 17 May	Unit 1	System flow diagrams
82	Mon 23 May	Unit 1	System flow diagrams
83	Thu 26 May	Unit 1	Other diagrams (gantt, structure)
86	Mon 30 May	Unit 1	Prototyping
87	Tue 31 May	Unit 1	Prototyping
88	Mon 06 Jun	(exams)	End of year 12 exams
89	Thu 09 Jun	(exams)	End of year 12 exams
90	Mon 13 Jun	(exams)	End of year 12 exams
93	Tue 14 Jun	(exams)	End of year 12 exams
94	Mon 20 Jun	(exams)	End of year 12 exams
95	Thu 23 Jun	(lost lessons)	Group 4, TOK, Higher Ed days etc
96	Mon 27 Jun	(lost lessons)	Group 4, TOK, Higher Ed days etc
97	Tue 28 Jun	(lost lessons)	Group 4, TOK, Higher Ed days etc
		Summer holiday	
2		Unit 1	Implementation (tech stack)
3		Unit 1	Implementation (parallel, phased, direct etc)
6		Unit 1	Testing & backups
7		Unit 2	Binary number systems
8		Unit 2	Representing different data using binary
9		Unit 2	Logic gates & circuits
10		Unit 2	Logic gates & circuits
13		Unit 2	CPU architecture; fetch-decode-execute cycle
14		Unit 2	Operating systems; Primary & secondary memroy
15		Unit 2	Unit 1 recap and Unit 2 test

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16		Internal assessment	Introductory briefing on the Internal Assessment
17		Internal assessment	IA proposals - Individually discuss with teacher for approval
20		Internal assessment	Crit A - Client and scenario
21		Internal assessment	Crit A - Rationale including tech stack; Success criteria
22		Internal assessment	Crit B - Screen mockups (paper & pencil) - review with client
23		Internal assessment	Crit B - Screen mockups (Adobe XD)
25		Internal assessment	Crit B - Pseudo code; other diagrams
26		Internal assessment	Self managed - Program development
27		Internal assessment	Self managed - Program development
28		Internal assessment	Self managed - Program development
29		Internal assessment	Self managed - Program development
31		Internal assessment	Self managed - Program development
32		Internal assessment	Crit C - Identify algorithms, data structures, libraries & tools used. Liaise with teacher to shortlist most suitable for inclusion.
33		Internal assessment	Crit C - Document
34		Internal assessment	Crit C - Document
35		Internal assessment	Crit C - Document
38		Internal assessment	Crit D - Video
39		Internal assessment	Crit E - Evaluation & recommentations
		Term holiday	
40		(exams)	Mock exams for paper 1, paper 2 and (HL only) paper 3
41		(exams)	
42		(exams)	
45		(exams)	
46		(exams)	
47		(exams)	
48		Review	Exam post-mortum paper 1
49		Review	Exam post-mortum paper 2
52		Unit 3	Networks; OSI model
53		Unit 3	Types of networks; Network standards
54		Unit 3	Network protocols; VPNs
55		Unit 3	Compression; transmission factors
56		Unit 3	Wireless networks
59		Unit 3	Review & quiz
60		Unit 3	(buffer)
61		Review	Paper 1 focus
62		Review	Paper 1 focus
63		Review	Paper 1 focus
66		Review	Paper 1 focus
67		Review	Paper 2 focus
68		Review	Paper 2 focus
69		Review	Paper 2 focus

HL

Additional lessons
for HL students only

Lesson number	Date	Unit	Lesson name
1	Thu 26 Aug	Unit 6 Resource mgt	Role of OS
2	Wed 1 Sep	Unit 6 Resource mgt	OS management techniques
3	Thu 9 Sep	Unit 6 Resource mgt	Virtual memory
4	Wed 15 Sep	Unit 6 Resource mgt	Interrupts & polling
5	Thu 23 Sep	Unit 6 Resource mgt	Raspberry Pi practical: Setup the OS; connect wifi; create accounts; firewall; cha
6	Wed 29 Sep	Unit 6 Resource mgt	Review
7	Thu 30 Sep	Unit 6 Resource mgt	Test
8	Thu 07 Oct	Unit 7 Control sys	Introduce control systems; open & closed loops;
9	Wed 20 Oct	Unit 7 Control sys	Microprocessors; sensors; i/o theory
10	Thu 28 Oct	Unit 7 Control sys	Centralised & distributed systems; autononmous systems; ethics
11	Wed 03 Nov	Unit 7 Control sys	Raspberry Pi practical: Microprocessors; sensors; i/o
12	Thu 11 Nov	Unit 7 Control sys	Raspberry Pi practical: Create an open or closed loop system.
13	Wed 24 Nov	Unit 7 Control sys	Test
14	Thu 02 Dec	Unit 5/D4 ADS	2D arrays: Concept, diagrams
15	Wed 08 Dec	Unit 5/D4 ADS	2D arrays: Pseudo/diagram questions
16	Thu 16 Dec	Unit 5/D4 ADS	2D arrays: Java
			Term holiday
17	Tue 12 Jan	Unit 5/D4 ADS	2D arrays: Java
18	Wed 20 Jan	Unit 5/D4 ADS	Recursion
19	Tue 26 Jan	Unit 5/D4 ADS	Recursion
20	Wed 10 Feb	Unit 5/D4 ADS	Recursion; 2D arrays & recursion mini quiz (last 20 minutes)
21	Tue 16 Feb	Unit 5/D4 ADS	Linked lists: Concept; operations
22	Wed 24 Feb	Unit 5/D4 ADS	Linked lists: Diagrams; p1 questions
23	Tue 02 Mar	Unit 5/D4 ADS	Stacks & queues: Concept, operations, diagrams
24	Wed 10 Mar	Unit 5/D4 ADS	Binary trees: Concept; operations; pre/in/post order
25	Tue 16 Mar	Unit 5/D4 ADS	Binary trees: Diagrams; p1 questions
26	Wed 24 Mar	Unit 5/D4 ADS	Paper 1 style data structure concepts quiz (20 minutes)
27	Tue 30 Mar	Unit 5/D4 ADS	Linked lists: Java implementation & exercises
			Term holiday
28	Wed 21 Apr	Unit 5/D4 ADS	Linked lists: Java implementation & exercises
29	Tue 27 Apr	Unit 5/D4 ADS	Stacks & queues: Java
30	Wed 05 May	Unit 5/D4 ADS	Binary trees: Java
31	Tue 11 May	Unit 5/D4 ADS	Past paper questions
32	Wed 19 May	Unit 5/D4 ADS	Past paper questions
33	Tue 25 May	Unit 5/D4 ADS	Paper 2 Exam; or end of unit test if no exams
34	Wed 02 Jun	(exams)	Group 4, TOK, Higher Ed days etc
35	Tue 08 Jun	(exams)	Group 4, TOK, Higher Ed days etc
36	Wed 16 Jun	(exams)	
37	Tue 22 Jun	(lost)	
38	Wed 30 Jun	(lost)	
			Summer holiday

HL

1		Case study	Read and dissect together. Big picture understanding.
2		Case study	Definitions of vocab list
3		Case study	Definitions of vocab list
4		Case study	Identify unanswered questions about the scenario or technical matters
5		Case study	Question 1-3 brainstorm
6		Case study	Question 1-3 practice responses
7		Case study	Question 1-3 practice responses
8		Case study	Swap and peer feedback your practice responses
9		Case study	Class discussion of issues arising from question 1-3 practice
10		Case study	Question 4 Research into the challenges
11		Case study	Question 4 Research into the challenges
12		Case study	Question 4 Research into the challenges
13		Case study	Question 4 practice essay 1
14		Case study	Question 4 practice essay 2
15		Case study	Swap and peer feedback your practice essays
16		Case study	Class discussion of issues arising from question 4 practice
		Term holiday	
17		(exams)	Mock exams for paper 1, 2 and 3
18		(exams)	
19		(exams)	
20		Review	Post-mortem HL parts of paper 1 & 2
21		Review	Post-mortem paper 3
22		Review	Review unit 6
23		Review	Review unit 7
24		Review	Review unit 5 & D4
25		Review	Review unit 5 & D4
26		Review	Review case study
27		Review	Review case study