basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

2021 Recovery Annual Teaching Plan: Grade 10 – Term 1: INFORMATION TECHNOLOGY (IT)

TERM 1: 45 days	Week 1: 27-29 Jan (3)	Week 2: 01-05 Feb	Week 3: 08-12 Feb	Week 4: 15-19 Feb	Week 5: 22-26 Feb	Week 6: 01-05 Mar	Week 7: 08-12 Mar	Week 8: 15-19 Mar	Week 9: 23-26 Mar (4)	Week 10: 29-31 Mar (3)
CAPS topic	Basic concepts of computing	Basic concepts of computing	Data representation and storage + Algorithms	Algorithms	Data representation + Solution development	Solution development	Solution development	Solution development	Social implications	Social implications
Concepts, skills and values	Explain what a computer is + Logging in Basic usage Basic risks + impact Folder creation (detail above to follow later)	What are ICTs? Define Information Technology Explain what a computer is: Overview and concepts of the main components of a computer system: Types of computers Advantages + disadvantages of using computers Data and information What is an ICT system?	Data, information and knowledge Bits and bytes Number systems: decimal, binary, hexadecimal Primitive data types and Data structures Basic concepts of an algorithm Examples of algorithms in everyday life	Explore various algorithms. Algorithms to solve a problem Tools: IPO table/flow charts /pseudo code for algorithms Tracing algorithms– trace table Compare algorithms: sequence, precision and efficiency	Value of accurate, well-tested algorithms Computer file management File-naming conventions Common file types and extensions Saving as another type Intro to the programming tool	Exploring the use of variables Variable naming conventions Assigning values to variables Exploring data types: integers, strings, floats, Boolean. Casting	Operators like: (+ , , * , /, mod, div) Functions: random, round, square root, truncation Calculations Formatting of output (fixed, currency)	Basic string concatenation Using "+" or Concat-function	Software licence agreements, piracy, copyright, copyleft Digital divide Basic string concatenation	Social, ethical and legal issues pertaining to ICTs? Economic reasons using computers
Pre-knowledge	Gr 10: Programming skills and knowledge									
Resources (Not textbook) to enhance learning	YouTube, Websites, Workshop notes, e-Resources									
Informal assess; remediation	1 informal assessment task	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	1 informal assessment task	2 informal assessment tasks	2 informal assessment tasks	1 informal assessment task
SBA (Formal Assessment)							Task 1: THEORY TEST: >= 45 marks (1hr)			

2021 Post Covid: National Revised Teaching Plan: Grade 10 – Term 2: INFORMATION TECHNOLOGY (IT)

TERM 2: 51 days	Week 1: 13-16 Apr (4)	Week 2: 19-23 Apr	Week 3: 28-30 Apr (3)	Week 4: 03–07 May	Week 5: 10-14 May	Week 6: 17-21 May	Week 7: 24-28 May	Week 8: 31 May–4 Jun	Week 9: 07–11 Jun	Week 10: 14–18 Jun	Week 11: 21–25 Jun
CAPS topic	Solution development	Solution development	Conditionals	Conditionals	Hardware	Strings	Strings	Strings	Networks + Communications	E-Communications + Social implications	Events + Validation
Concepts, skills and values	Applying algorithms such as swapping values, finding aggregates, isolate digits in an integer number (mod, div) Event handling e.g. Button (Click only)	Event handling e.g. Button (Click only)	Comparison operators and performing logical comparisons Conditional constructs + Boolean Boolean logic/operators	Nested if's (three levels in the nesting) CASE statement Extend the use of variables, relational operators' (and or not, etc, IN)	Output /Storage devices / Input + Output System Unit Ports and connectors Compare computing devises Describe system software Extend system software concept Utility programs Device drivers	String methods: length, copy, pos, left, right String operations (using the string methods)	Find a character in a string Count the number of occurrences of a specific character in a string String handling: Length function Copy function	Enforce principles: of operations: (position of a character); copy (creating a substring); delete (deleting a character/s) ; insert (inserting a character/s) (strings/Listbox) logical operator IN with strings	Describe a network, Reasons for using networks, Types of networks, Internet as a WAN, Client-server vs peer-to-peer, Reasons for logging in	Describe e-communication Tools to facilitate e-com E-mail as e-com Social issues: work done up to here:	Events Basic validation techniques Debugging techniques (ShowMessage) Debugging using trace tables
Pre-knowledge	Gr 10: Programming skills and knowledge										
Resources (Not textbook) to enhance learning	YouTube, Websites, Workshop notes, e-Resources										
Informal assess; remediation	2 informal assessment tasks.	2 informal assessment tasks.	2 informal assessment tasks.	2 informal assessment tasks	2 informal assessment tasks.	1 informal assessment task	2 informal assessment tasks.	2 informal assessment tasks.	1 informal assessment task	1 informal assessment task.	1 informal assessment task
SBA (Formal Assessment					Task 2: PRACTICAL TEST: >= 45 marks (1hr)				Task 3: CONTROL TEST: >=45 marks (1hr) (June Exam replace)		

2021 Recovery Annual Teaching Plan: Grade 10 – Term 3: INFORMATION TECHNOLOGY (IT)

TERM 3: 52 days	Week 1: 13-16 Jul (4)	Week 2: 19-23 Jul	Week 3: 28-30 Jul	Week 4: 02–06 Aug	Week 5: 10-13 Aug (4)	Week 6: 16-20 Aug	Week 7: 23-27 Aug	Week 8: 30 Aug–03 Sep	Week 9: 06 Sep – 10 Sep	Week 10: 13 Sep –17 Sep	Week 11: 20 Sep –23 Sep
CAPS topic	Iteration constructs	Iteration constructs	Iteration constructs	Computer Management + PAT	Strings	Strings	Loops & strings	Loops& Strings	Internet & WWW	Internet & Social Implications	Application Development + PAT
Concepts, skills and values	Iteration -Loops: **For-loop - structure**	Iteration -Loops: **While -loop structure**	Iteration -Loops: **Repeat Until: Loop structure**	Describe computer management Various management tasks and operating system utilities PAT: Task description and analysis of requirements	Strings: Implement algorithms to solve computing problems	Strings: Implement algorithms to solve computing problems	Loops & strings: Implement algorithms to solve computing problems	Loops & strings: Implement algorithms to solve computing problems PAT: Guidance and Follow up	Describe Internet ISP Overview of WWW Browsing and searching W3C Criteria to evaluate Web sites	Overview of plug-in applications What are Internet services technologies? Social Issues: Work done up to here	**Develop simple applications:** Solve a problem using problem-solving steps Input & output using text file (for PAT only)
Pre-knowledge	Past programming skills and knowledge										
Resources (Not textbook) to enhance learning	YouTube, Websites, Workshop notes, e-Resources										
Informal assess; remediation	2 informal assessment tasks	2 informal assessment tasks			2 informal assessment tasks	1 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	2 informal assessment tasks	PAT	
SBA (Formal Assessment				PAT		**Task 4: THEORY TEST >= Min 45 marks (1hr)**		PAT		**Task 5: Practical test >=Min 45 marks (1hr)**	PAT

2021 Recovery Annual Teaching Plan: Grade 10 – Term 4: INFORMATION TECHNOLOGY (IT)

TERM 4: 47 days	Week 1: 05-08 Oct (3)	Week 2: 11-15 Oct	Week 3: 18-22 Oct	Week 4: 25-29 Oct	Week 5: 01 Nov-05 Nov	Week 6: 08 Nov-12 Nov	Week 7 – 10: 15 Nov – 8 Des		
CAPS topic	Application Development + PAT	Application Development + PAT	Application Development + PAT	Application Development + PAT	Solution Development	Solution Development	**TASK 6: FINAL EXAMINATION**		
Concepts, skills and values	What is problem solving? Problem solving steps Solve a problem using problem-solving steps Use appropriate tools and techniques used in software analysis, viz. Develop simple applications PAT	Develop simple applications: Use appropriate tools and techniques used in software analysis, viz. Develop simple applications. PAT	Develop simple applications: Use appropriate tools and techniques used in software analysis, viz. Develop simple applications. PAT	Develop simple applications: Use appropriate tools and techniques used in software analysis, viz. Develop simple applications PAT (hand-in)	Consolidate and reinforce content, concepts, and skills. Design and develop solutions for a variety of problems that include computational thinking and applying software engineering principles	Consolidate and reinforce content, concepts, and skills. Design and develop solutions for a variety of problems that include computational thinking and applying software engineering principles	**PAPER 1** Marks: 120 – Time: 3 hours (strings will be tested in all questions) **Question 1** Properties, debugging, formulae, formatting **Question 2** Application of Decision making and repetition (loops) **Question 3** General problem-solving		**PAPER 2** Marks: 120 – Time: 2hr 30 Section A: Question 1 Short questions (±20 marks) Section B: Question 2 Systems Technologies (±20 marks) Section C: Question 3 Communications and Network Technologies (±20 marks) Section D: Question 4 Data and Information Management (±20 marks) Section E: Question 5 Solution Development (±20 marks) Section F: Question 6 Integrated Scenario (±20 marks)
Pre-knowledge	Past programming skills and knowledge								
Resources (Not textbook) to enhance learning	YouTube, Websites, Workshop notes, e-Resources								
Informal assess; remediation	1 informal assessment task	1 informal assessment task	1 informal assessment task	1 Informal assessment task	2 Informal assessment task	2 Informal assessment task	**Cognitive levels: Lower order – 30%; Middle order-40%; Higher order-30%**		
SBA (Formal Assessment	PAT	PAT	PAT	PAT					