



**SCHOOL EDUCATION & LITERACY
DEPARTMENT
GOVERNMENT OF SINDH**

Karachi. Dated: December 09th 2019

NOTIFICATION

NO. SO/G-III/SELD/CA/CW/305 /2019: In compliance to the Orders of Honorable High Court of Sindh Circuit Court, Hyderabad Sindh dated 02/08/2019 passed in CP no.1817/2016,2894/2017 and 1890/2019, the School Education & Literacy Department, Govt. of Sindh is pleased to approve the following Scheme of Studies and bifurcation of the subjects Mathematics, Physics, Chemistry, Biology and Computer Science for Class IX and X and Uniformity in marks of Secondary School Certificate (SSC Part-I & II) in line with National Scheme of Studies developed by the Directorate of Curriculum, Assessment and Research (DCAR).

Scheme of Studies for Grade IX – X

Academic Year 2020- 21

S. No.	Subjects	Marks		
		Grade IX	Grade X	TOTAL
1	English	100	100	200
2	Sindhi (MT)/ Urdu (MT)/ History Geography of Pakistan (foreign students only)	75	-	75
3	Sindhi (Slaees)/ Urdu (Slaees) (NMT)	-	75	75
4	Islamiat/ Ethics for non-Muslims	75	-	75
5	Pakistan Studies	-	75	75
6	Mathematics	75	75	150
7	Physics (Th+Pr)	(60+15) =75	(60+15) =75	150
8	Chemistry (Th+Pr)	(60+15) =75	(60+15) =75	150
9	Biology (Th+Pr)/ Computer Science (Th+Pr)	(60+15) =75	(60+15) =75	150
	Total	550	550	1100

Key:

MT= Mother Tongue
NMT= Non Mother Tongue
Th= Theory
Pr= Practical





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**Scheme of Studies and Bifurcation of the Textbook for Mathematics Grade IX - X
Justification of Grade- wise bifurcation of Mathematics for Academic Year 2020- 21**

Change/ Rearrangement	Rationale:
Unit 6 “Algebraic sentence” is shifted in Grade X.	The bifurcation of proposed scheme of studies prepared according to the national curriculum 2000 as well as existing textbook of mathematics for grade IX-X
Unit 12 “demonstrative Geometry” has been distributed in two parts.	To introduce Geometry in grade-IX, and continue in grade-X, it is proposed as follows; First part of unit 12 “theorem based on line” is proposed for study in grade IX Grade. The second part of unit 12 “theorem based on triangle” proposed for grade-X, in the light of curriculum and the weightage of units.

Units of Mathematics for Grade IX

Unit 1	Sets
Unit 2	System of real Numbers, Exponents and Radicals
Unit 3	Logarithms
Unit 4	Algebraic Expressions
Unit 5	Factorization, HCF, LCM, Simplification and Square Roots
Unit 7	Matrices
Unit 11	Fundamental Concepts of Geometry
Unit 12	Demonstrative Geometry – Theorems based on lines

Units of Mathematics for Grade X

Unit 6	Algebraic Sentences
Unit 8	Elimination
Unit 9	Variations
Unit 10	Information Handling
Unit 12	Demonstrative Geometry – Theorems based on triangles and other polygon
Unit 13	Circle
Unit 14	Practical Geometry
Unit 15	Trigonometry



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**Scheme of Studies and Bifurcation of the Textbook for Physics Grade IX - X
Justification of Grade- wise bifurcation of Physics for Academic Year 2020- 21**

Change/ Rearrangement	Rationale:
Unit 9: "Simple Machines" is shifted to Grade X	Students have already studied "Simple Machines" in previous grades; hence it is low difficulty level unit. As there are higher difficulty level chapters in the grade-X, therefore, Unit 9- "Simple Machines" is shifted to Grade X this will balance the difficulty level among units.
Unit 11 "Heat" is shifted to Grade IX	The Unit 11 "Heat" is shifted to Grade IX as it is more related with the unit "Properties of Matter".

Units of Physics for Grade IX

Unit 1	Introduction
Unit 2	Measurement
Unit 3	Kinematics of Linear Motion
Unit 4	Motion and Force
Unit 5	Vectors
Unit 6	Equilibrium
Unit 7	Circular Motion and Gravitation
Unit 8	Work, Power and Energy
Unit 10	Properties of Matter
Unit 11	Heat

Units of Physics for Grade X

Unit 9	Simple Machines
Unit 12	Waves and Sounds
Unit 13	Propagation and Reflection of Light
Unit 14	Refraction of Light and Optical Instruments
Unit 15	Nature of Light and Electromagnetic Spectrum
Unit 16	Electricity
Unit 17	Magnetism and Electro Magnetism
Unit 18	Electronics
Unit 19	Nuclear Physics





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Scheme of Studies and Bifurcation of the Textbook for Chemistry, Grade IX –X
Justification of Grade- wise bifurcation of Chemistry for Academic Year 2020- 21

Change/ Rearrangement	Rationale:
Unit No. 1 to unit No. 10 are proposed for study in Grade IX	The content weightage, course workload on students and unit linkages are already in progression, therefore initial ten units are assigned in grade IX.
Unit No. 11 to unit No. 18 are proposed for study in Grade X	The rest of eight units are proposed for study in grade X as the difficulty level and workload is equal to initial ten units. There is proper linkage among the units.

Units of Chemistry for Grade IX

Unit 1	Introduction to Chemistry
Unit 2	Chemical Combination
Unit 3	Atomic structure
Unit 4	Periodicity of Elements
Unit 5	Chemical Bonding
Unit 6	State of Matter
Unit 7	Solution and Suspension
Unit 8	Electro Chemistry
Unit 9	Acids, Bases and Salts
Unit 10	Chemical Energetics

Units of Chemistry for Grade X

Unit 11	Hydrogen and Water
Unit 12	Carbon, Silicon and Compounds
Unit 13	Nitrogen and Oxygen
Unit 14	Sulphur and its Compounds
Unit 15	Halogens
Unit 16	Metals and their Extraction
Unit 17	Organic Chemistry
Unit 18	Chemical Industries





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**Scheme of Studies and Bifurcation of the Textbook for Biology Grade IX - X
Justification of Grade- wise bifurcation of Biology for Academic Year 2020- 21**

Change/ Rearrangement	Rationale:
Unit 1 to Unit 10 are proposed for study in grade IX	The textbook units are properly and logically sequenced. The basis are provided at grade IX through units on living things, cell, tissues, breathing, food, glucose, energy and health.
Unit 11 to Unit 19 are proposed for study in grade X	The units on Man and Biology are proposed in grade X, as these eight units are logical sequenced and properly linked having many common aspects. e.g. Transportation, reproduction, genes, evolution and environment are interlinked.

Units of Biology for Grade IX

Unit 1	Introduction to Biology
Unit 2	Structural Organization of Life
Unit 3	Classification of Living Organisms
Unit 4	Viruses, Bacteria and Cyanobacteria.
Unit 5	Fungi and Algae
Unit 6	Bryophytes and Tracheophytes
Unit 7	Invertebrata
Unit 8	Chordata and Vertebrata
Unit 9	Food and Nutrition
Unit 10	Respiration

Units of Biology for Grade X

Unit 11	Transport in Organisms
Unit 12	Excretion
Unit 13	Support and Movement
Unit 14	Response and Coordination
Unit 15	Reproduction
Unit 16	Genes and Inheritance
Unit 17	Evolution
Unit 18	Environmental Biology





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Unit 19	Man, and Biology
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Scheme of Studies and Bifurcation of the Textbook for Computer Science Grade IX - X
Justification of Grade- wise bifurcation of Computer Science for Academic Year 2020- 21

Change/ Rearrangement	Rationale:
Unit No. 1 to unit No. 4 and unit No. 7 are proposed for study in Grade IX	The content weightage, course workload on students and unit linkages are already in progression, therefore initial 4 units are assigned in grade IX. However the unit 7 is practical based therefore unit 7 is assigned for hands on computer and practical work in grade IX.
Unit No. 5, 6 and 8 are proposed for study in Grade X	The rest of three units are proposed for study in grade X as the difficulty level and workload is balanced in both grades. There is proper linkage and progression among the units.

Units of Computer Science for Grade IX

Unit 1	Introduction to computer
Unit 2	Computer components
Unit 3	Input/ Output devices
Unit 4	Storage devices
Unit 7	Computer Software

Units of Computer Science for Grade X

Unit 5	Data representation
Unit 6	Boolean Algebra
Unit 8	Introduction to Widows

AHSAN ALI MANGI
SECRETARY TO GOVERNMENT OF SINDH

NO. SO/SELD/CA/CW/305/2019

Dated: 9th December 2019

A copy is forwarded for information and necessary action to:

- Registrar, High Court of Sindh, Circuit Court, Hyderabad
- Sindh The Chairman, Sindh Textbook Board, Jamshoro.
- The Director, Directorate of Curriculum, Assessment and Research & Jamshoro.
- The Chief Advisor, Curriculum Wing, SELD. Govt. of Sindh
- The Staff Officer to Secretary SELD, Govt. of Sindh,

(TAHIR JAMAL MANGI)
(SECTION OFFICER G-III)



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