



Datta Meghe World Academy

Sector 16, Airoli

Annual Syllabus 2020-2021

Grade - XII- SCIENCE STREAM MATH & BIO

Month	ENGLISH			
	Syllabus Covered	Syllabus Pending	Syllabus Deleted	Internal Assessment
APRIL	The last lesson, Lost spring, Deep Waters, My mother at sixty six, The rat Trap, Keeping quite,	Nil		The Last Lesson - Google Form
MAY	An Elementary School in a slum, A thing of beauty , A roadside stand, Unseen passage	Nil	A Roadside Stand,	An Elementary school- Article Writing, Roadside Vendor- Discussion of the problems of the roadside vendors
JUNE	The poets and pancakes, Advertisement Writing, Invitation, Figures of speech, Unseen passage, Group Discussion,	Nil	Poets and Panca,kes	Figures of speech - google form Advertisement Writing - Nearpod, Invitation -Nearpod, Group Discussion - Nearpod
JULY	Indigo, The third level, Speaking skill. Article writing, The Tiger King, unseen passage, Speaking Skills, Debate	Nil	The Tiger King, debate	Indigo - Google form and Nearpod (Time to climb), The Third Level- Nearpod Quiz, Article Writing - Nearpod Activity Collaboration (Two Activities), Yoga and Film article Google Classroom, The tiger King- PPT Making
AUGUST	The Enemy, Should Wizard hit Mommy, On the face of it, Letter Writing { Verbal input, visual input, Editor(Suggestion, Opinion, Issues of public interest)} Report Writing, unseen passage			Should Wizard hit Mommy- Activity Google Doc. , The Enemy- Quiz, Letter Writng- Activity Google Class, Report Writing- Google Class
SEPTEMBER	The journey to the end of the world, Evans tries an O-Level, Meomries of Childhood(The cutting of my long hair, We too are Human Beings, Notice Writing, Aunt Jennifer's Tiger, unseen passage		The journey to the end of the earth, Memories of Childhood	The journey to the end of the world- Project Work, Evans tries an O-Level, Meomries of Childhood-quiz, Notice Writing- Google Classroom,
OCTOBER	The Interview, Going Places, unseen passage, speech		The Interview, Going places, speech	The Interview- Explanation
NOVEMBER				
DECEMBER				
JANUARY				
FEBRUARY				
MARCH				

Month	MATHEMATICS			
	Syllabus Covered	Syllabus Pending	Syllabus Deleted	Internal Assessment
APRIL	Chapter 3: Matrices Chapter 4: Determinants	Nil	Ch3. Concept of elementary row and column operations, existence of non zero matrices whose product is zero matrix, Ch4. Properties of Determinants, Consistency, Inconsistency and number of solutions of system of linear equations	Google Form- Determinants
MAY				
JUNE	Chapter 1: Relations and Functions, Chapter 2: Inverse Trigonometry	Nil	Ch1. Composite and inverse of a function, Ch2. Graphs and elementary properties of Inverse Trigonometric functions	Google form- Relations and Functions Graph Assignment- Inverse Trigonometry
JULY	Chapter 5: Continuity and Differentiability, Chapter 6: Application of Derivatives	Nil	Ch5. Rolle's and Lagrange's Mean, Value, Theorems (without proof) and their geometric interpretation Ch6. rate of change of bodies	
AUGUST		Chapter 7: Integration, Chapter 8: Applications of Integration	Ch7. Definite integrals as a limit of a sum, Ch 8. Applications in finding the area under circles/ parabolas/ellipses (in standard form only)	Group Project on Graphical Representation in Applications of Trigonometry
SEPTEMBER		Chapter 9: Differential Equations, Chapter 10: Vector Algebra, Chapter 11: Three Dimensional Geometry	Ch 9. formation of differential equation whose general solution is given. Ch10. scalar triple product of vectors., Ch 11. Angle between (i) two lines, (ii) two planes, (iii) a line and a plane	Google form- Vector Algebra
OCTOBER		Chapter 12: Linear Programming, Chapter 13: Probability	Ch 12. mathematical formulation of L.P. problems, feasible and infeasible regions (unbounded), Ch13. mean and variance of random variable	Google form- Linear Programming, Probability
NOVEMBER				
DECEMBER				
JANUARY				
FEBRUARY				
MARCH				

Month	BIOLOGY			
	Syllabus Covered	Syllabus Pending	Syllabus Deleted	Internal Assessment
APRIL	Chapter 2: Sexual reproduction in flowering plants Chapter 3: Human Reproduction		CH-1: Reproduction (internal assessment-PORTFOLIO)	Google forms, Written assignments, portfolio
MAY	Chapter 4: Reproductive Health		CH-7: Evolution (Internal assessment -group presentation)	Written assignments, group ppts
JUNE	Chapter 5: Principles of inheritance & Variation Chapter 6: Molecular Basis of Inheritance			Google forms, Written assignments, portfolio, Quiz, ACTIVITY (Game based learning)
JULY	Chapter 8: Human Health & diseases Chapter 10: Microbes in Human Welfare			Written assignments, portfolio, Quiz, project work
AUGUST		Chapter 11: Biotechnology: Principles & Processes Chapter 12: Biotechnology & its application	CH-9: Strategies for advancement in food production (group ppt)	Written assignments, portfolio, Quiz, group presentation, project work
SEPTEMBER		Chapter 13: Organisms & Population Chapter 15: Biodiversity & conservation	CH-14: Ecosystem (group ppt)	
OCTOBER		Practicals & Journal completion	CH-16: Environmental issues (group ppt)	
NOVEMBER				
DECEMBER				
JANUARY				
FEBRUARY				
MARCH				

Month	PHYSICS			
	Syllabus Covered	Syllabus Pending	Syllabus Deleted	Internal Assessment
APRIL	Chapter-14: Semiconductor Chapter-13: Nuclei Chapter-12: Atoms Chapter-11: Dual Nature of Radiation and Matter		Chapter- 14 Semiconductor Electronics: Materials, Devices and Simple Circuits Zener diode and their characteristics, zener diode as a voltage regulator. Chapter 13- Nuclei Radioactivity, alpha, beta and gamma particles/rays and their properties; radioactive decay law, half life and mean life binding energy per nucleon and its variation with mass number Chapter-11 Dual Nature of radiation and matter Davisson-Germer experiment	Google form, quiz
MAY				
JUNE	Chapter-10: Wave Optics Chapter-9: Ray Optics and Optical Instruments		Ray Optics and Wave optics: Reflection of light, spherical mirrors, (recapitulation) mirror formula , Scattering of light - blue colour of sky and reddish appearance of the sun at sunrise and sunset. resolving power of microscope and astronomical telescope, polarisation, plane polarised light, Brewster's law, uses of plane polarised light and Polaroids.	Google form, quiz
JULY	Chapter-9: Ray Optics and Optical Instruments Chapter-1: Electric Charges and Fields		Chapter-1 Electric charges and fields uniformly charged thin spherical shell (field inside and outside).	Google form, quiz
AUGUST		Chapter-2: Electrostatic Potential and Capacitance Chapter-3: Current Electricity Chapter-4: Moving Charges and Magnetism	Chapter-3 Current Electricity Carbon resistors, colour code for carbon resistors; series and parallel combinations of resistors Chapter-4 Moving Charges and Magnetism Cyclotron	Google form, quiz

SEPTEMBER		Chapter-5: Magnetism and Matter Chapter-6: Electromagnetic Induction	Chapter-5 Magnetism and Matter magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis, torque on a magnetic dipole (bar magnet) in a uniform magnetic field; Para-, dia- and ferro- magnetic substances, with examples. Electromagnets and factors affecting their strengths, permanent magnets.	Google form, quiz
OCTOBER		Chapter-7: Alternating Current Chapter-8: Electromagnetic Waves	Chapter-7 Alternating Current power factor, wattless current. Chapter 8 Electromagnetic -Waves Basic idea of displacement current,	Google form, quiz
NOVEMBER				
DECEMBER				
JANUARY				
FEBRUARY				
MARCH				

Month	CHEMISTRY			
	Syllabus Covered	Syllabus Pending	Syllabus Deleted	Internal Assessment
APRIL	Chapter 10: Haloalkanes & Haloarenes	Chapter 1. Solid state, Chapter 2. Solutions, Chapter 3. Electrochemistry, Chapter 4. Chemical Kinetics, Chapter 5. Surface Chemistry, Chapter 8. D & F Block Elements, Chapter 9. Coordination elements, Chapter 12. Aldehydes, Ketones & Carboxylic acids, Chapter 13. Amines, Chapter 14. Biomolecules	Ch6: General principles and processes of isolation of elements, Ch15: Polymers, Ch16: Chemistry in everyday life	Surprise test
MAY				
JUNE	Chapter 11: Alcohols, Phenols & ethers			Surprise test
JULY	Chapter 7: P Block Elements			
AUGUST		8. d & f block elements 9. Coordination chemistry 5. Surface chemistry 14. Biomolecules		
SEPTEMBER		13. Amines 12. Aldehydes, Ketones & Carboxylic acids		
OCTOBER		1. Solid state 4. Chemical kinetics		
NOVEMBER		2. Solutions 3. Electrochemistry		
DECEMBER				
JANUARY				
FEBRUARY				
MARCH				

Month	INFORMATICS PRACTICES			
	Syllabus Covered	Syllabus Pending	Syllabus Deleted	Internal Assessment
APRIL	Unit 2: Database Query using SQL Math functions: POWER (), ROUND (), MOD ().Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM ().			Quizziz ,W3school Quiz
MAY	Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME ().Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). Querying and manipulating data using Group by, Having, Order by.			Quizziz ,W3school Quiz
JUNE	Unit 3: Introduction to Computer Networks Introduction to networks, Types of network: LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star, Bus, Tree, Mesh.Introduction to Internet, URL, WWW, and its applications- Web, email, Chat, VoIP.			Quizziz .W3school Quiz.or
JULY	Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website.Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.			Quizziz ,W3school Quiz,online MCQ question on Proprofs.com

AUGUST	Unit 4: Societal Impacts : Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, free and open source software (FOSS), cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act.E-waste: hazards and management.			Kahoot,Quizizz
SEPTEMBER	Unit 1 Introduction to Python libraries- Pandas, Matplotlib. Data structures in Pandas - Series and Data Frames.Series: Creation of Series from – ndarray, dictionary, scalar value; mathematical operations: Head and Tail functions; Selection, Indexing and Slicing.	selection ,indexing & slicing	Data handling using Pandas – II Descriptive Statistics: max, min, count, sum, mean, median, mode, quartile, Standard deviation, variance. Data Frame operations: Aggregation, group by, Sorting, Deleting and Renaming Index, Pivoting. Handling missing values – dropping and filling. Importing/Exporting Data between MySQL database and : color, style (dashed, dotted), width; Pandas.	Kahoot,Quizizz,w3school, previous year sample paper
OCTOBER		Data Visualization Purpose of plotting; drawing and saving following types of plots using Matplotlib – line plot, bar graph, histogramCustomizing plots: adding label, title, and legend in plots.	Data Visualization , pie chart, frequency polygon, box plot and scatter plot.	google form ,kahoot,quizizz,w3school sample Question paper
NOVEMBER				
DECEMBER				
JANUARY				
FEBRUARY				
MARCH				

Month	PHYSICAL EDUCATION			
	Syllabus Covered	Syllabus Pending	Syllabus Deleted	Internal Assessment

APRIL	Unit-1: Planning in Sports * Meaning and Objectives of Planning * Various Committes and its responsibility * Tournmant	NIL	NIL	*Attendance *Interaction *Assignment * Viva * Inovatory * Practical
MAY				
JUNE	Unit-1: Planning in Sports * Types of Tournmant * Procedure to draw fixtures * Intramural & Extramural * Specific Sports Program	NIL	* Intramural & Extramural * Specific Sports Program	*Attendance *Interaction *Assignment * Viva * Inovatory * Practical
JULY	Unit-2 Sports & Nutrition * Balanced Diet & Nutrition * Nutritive and Non Nutritive Components of Diet * Eating for Weight Control	NIL	NIL	*Attendance *Interaction *Assignment * Viva * Inovatory * Practical
AUGUST	Unit -3 Yoga and Lifestyle Unit-4 Physical Education and Sports for CWSN Unit-5 Children and Women in Sports		Unit-3 * Back Pain Unit-4 * Advantage of Physical Activities for children with special needs Unit-5 * Special consideration (Menarch & Menstural Disfunction)* Female Athletes Triad (Oestoperosis, Amenoria, Eating Disorders)	*Attendance *Interaction *Assignment * Viva * Inovatory * Practical
	Unit-6 Test Measurement in Sports Unit- 7 Physiology and Injuries in Sports		Unit-6 * General Motor Fitness–Barrow three item general motor ability(Standing Broad Jump, Zig Zag Run, Medicine Ball Put – For Boys: 03 Kg & For Girls: 01Kg) Unit- 7 *Physiological changes due to ageing	*Attendance *Interaction *Assignment * Viva * Inovatory * Practical
OCTOBER	Unit-8 Biomechanics and Sports Unit-9 Psychology and Sports Unit-10 Training in Sports		Unit-8 * Friction & Sports Adherence; Reasons to Exercise, Benefits of Exercise * Strategies for Enhancing Adherence to Exercise Unit- 10 * Circuit Training - Introduction & its importance	*Attendance *Interaction *Assignment * Viva * Inovatory * Practical
NOVEMBER				
DECEMBER				
JANUARY				
FEBRUARY				
MARCH				

Month	MASS MEDIA			
	Syllabus Covered	Syllabus Pending	Syllabus Deleted	Internal Assessment
APRIL	April			
MAY	May			
JUNE	Advertising Concepts and Process, FunAdvertising oncepts and Process, Functions of advertising.	Nil	Nil	Radio Advertisement, video Advertisement
JULY	Types of advertising, Forms of advertising, Film	Nil	Nil	Video Advertisement
AUGUST	TV, Print, Radio, Internet, Communication Skills, Self Management Skills			Short Fil
SEPTEMBER	Convergence and new possibilities of communication, Film, TV, , Basic ICT SKILLS			
OCTOBER	Print, Radio , Internet, Entreprneurial skills, Green Skills			
NOVEMBER				
DECEMBER				
JANUARY				
FEBRUARY				
MARCH				

Pen & paper
Pen paer 20 marks Google form
Pen Paper- 20 Marks, Pen Paer -20 Marks The Enemy, Should Wizard hit Mommy, On the face of it, Letter Writing { Verbal input, visual input, Editor(Suggestion, Opinion, Issues of public interest)} Report Writing, unseen passage
Pen Paper -20, Pen Paper- 20 , Evans tries an O-Level, Notice Writing, Aunt Jennifer's Tiger, unseen passage
pen paper- 20 Marks,

Pen & paper
Chapter 2 & 3: Diagram test & Short answer test (15marks: 15 marks)
Chapter 4: Very short types questions -20 marks
Chapter 5 & 6 -open book test 30 marks & Diagram test -20marks
Chapter 8: Human Health & diseases (Essay writing-30marks) Chapter 10: Microbes in Human Welfare (open book test -30 marks)
Chapter 11 & 12: Microbes in Human Welfare (open book test -30 marks)
Chapter13 & 14: (Essay writing-30marks)
Board question paper solving

Pen & paper
pen paper test for 20 marks
pen paper test for 20 marks
pen paper test for 20 marks
pen paper test for 20 marks

pen paper test for 20
marks

pen paper test for 20
marks

Pen & paper

Pen & paper
Pen-Paper
Pen-Paper
Pen-Paper