செய்முறை பாடத்திட்டம்



## CLASS 9



Month	Time	Name of the Experiment
June	40 minutes	To find the diameter of a spherical body
October	40 minutes	To find the thickness of the given iron nail
January	40 minutes	Melting point of wax
July	40 minutes	Measurement of volume of liquids
August	40 minutes	Identification of adaptations in animals
August	40 minutes	Identification of plants and animal tissues
November	40 minutes	To detect the adulterants in food samples
November	40 minutes	Identification of microbes
February	40 minutes	Economic biology
February	40 minutes	Identification of adaptations in plants

## SCIENCE

Month	Name of the Experiment	
June		Determination of weight of an object using the principle of moments
July	Physics	Determination of focal length of a convex lens
September		Determination of resistivity
June		Identification of the dissolution of the given salt whether it is exothermic or endothermic
July	Chemistry	Testing the solubility of the salt
August	Chemistry	Testing the water of hydration of salt
October		Test the given sample for the presence of acid or base
June		Photosynthesis-Test tube and Funnel experiment (Demonstration)
August	Bio-Botany	Parts of a Flower
August	Dio Botany	Mendel's Monohybrid cross
October		Observation of Transverse section of Dicot stem and Dicot root
July	BIO-Zoology	Observation of Models-Human Heart and Human brain
August		Identification of Blood cells
October		Identification of Endocrine Glands

NOTE: 40 MINUTES FOR EACH PRACTICALS

## **PHYSICS**

MONTH	SL	EXPERIMENT
	1	Vernier caliper
June	2	Non Uniform Bending
July	3	Spring Constant
July	4	Simple Pendulum
August	5	Resonance column
August	6	Stoke's Method
October	7	Capillary Rise Method
October	8	Newton law of Cooling
November	9	Sonometer First Law
	10	Sonometer Second Law

## CHEMISTRY

монтн	SL	EXPERIMENT
Luna	1	Lead Nitrate
June	2	Copper Sulphate
	3	Copper Carbonate
July	4	Aluminium nitrate
	5	Ferric Chloride
	6	Zinc Sulphide
August	7	Zinc Sulphate
	8	Calcium Carbonate
September	9	Ammonium Chloride
	10	Barium Chloride
October	11	Magnesium Sulphate
	12	Magnesium Carbonate
	13	Aluminium Sulphate
November	14	Magnesium Phosphate
	15	Ammonimum Bromide

## BOTANY

MONTH	SL	EXPERIMENT
	1	BACTERIA - LACTOBACILLUS
	2	FUNGI - YEAST AND RHIZOPUS
	3	ALGAE - CHLAMYDOMONAS, VOLVOX, SPIROGYRA, OEDOGONIUM
	4	CHARA AGARICUS - BASIDIOCRAP
JUNE	5	AGARICUS - BASIDIOCARP
2.01.1	6	FOLIOSE - LICHEN
	7	FUNARIA - HABIT
	8	ADIANTHUM - HABIT
	9	ULTRA STRUCTURE OF BACTERIAL CELL
	10	TYPES OF STELE
	11	PHYLLOCLADE - OPUNTIA
	12	TYPES OF VENATION
JULY	13	TYPES OF INFLORESCENCE
	14	SPECIAL INFLORESCENCE - CYATHIUM
	15	AGGEGATE FRUIT - POLYALTHIA
	16	FABACEAE - CLITORIA TERNATEA
	17	APOCYNACEAE - CATHARANTHUS ROSEUS
AUCUCT	18	SOLANACEAE - DATURA METAL
AUGUST	19	EUPHORBIACEAE - RICINUS COMMUNIS
	20	MUSACEAE - MUSA PARADISIACA
	21	CELL CYCLE STAGES

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## BOTANY

22	MITOSIS CELL DIVISION STAGES - METAPHASE, ANAPHASE
23	
	NITROGEN BASES
24	TEST FOR REDUCING SUGAR - BENEDICT REAGENT TEST
25	TEST FOR STARCH - IODINE TEST
26	TEST FOR PROTEIN - BIURET TEST
27	TEST FOR LIPIDS - SAPONIFICATION TEST
28	TYPES OF TISSUSE
29	ANATAMICAL STRUCTURE - MONOCOT AND DICOT- ROOT, STEM AND LEAF
30	PLASMOLYSIS AND DEPLASMOLYSIS
31	POTATO OSMOSCOPE EXPERIMENT
32	STOMATAL DISYRIBUTION
33	PAPER CHROMOTOGRAPHY
34	WILMOTT'S BUBBLER EXPERIMENT
35	EXPERIMENT TO DEMONSTRATE THE PRODUCTION OF CO2 IN AEROBIC RESPIRATION
36	ARC AUXANOMETER EXPERIMENT
	25 26 27 28 29 30 31 32 33 34 35

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## ZOOLOGY

MONTH	SL	EXPERIMENT	
	Preser	Preserved Specimens/Photographs	
	1	Spongilla Sea Anemone	
June	2	Tapeworm Ascaris Earthworm	
	3	Cockroach	
	4	Pila, Starfish, Balanoglossus, Rat	
	5	Squamous Epithelium	
hub.	6	Columnar Epithelium	
July	7	Test for Salivary Amylase	
	8	Identify the sex of cockroach (using hand lens)	
	Prepared Slides/Pictures/Photographs		
	1	RBC	
August	2	WBC	
	3	Test for Ammonia	
	4	Test for Urea	

## ZOOLOGY

MONTH	SL EXPERIMENT	
	340	2.0 2.0.0.2.0
	5	Humerus
September	6	Pelvic girdle
September	7	Rib cage
	8	Ball and Socket joint
	9	Addison's disease
October	10	Marasmus
October	11	Exopthalmic Goitre
	12	Determine Your Blind Spot
	Identify the Medical instruments	
	1	Stethoscope
	2	Sphygmomanometer
	3	Glucometer
November	4	ECG
	Photographs/pictures	
	5	Kangayam bull
	6	Honey bee
	7	Bombyx mori

# BIO BOTANY

MONTH	S.NO	EXPERIMENT(Slide/photograph/model)
	1	Bacteria-Lactobacillus
	2	Fungi-Yeast
JUNE	3	Algae-Chlamydomonas
	4	Agaricus-Basidiocarp
	5	Foliose Lichen
	6	Phylloclade-Opuntia
JULY	7	Special Inflorescence-Cyathium
	8	Aggregate fruit-Poyalthia
AUGUST	9	Fabaceae-Clitoria ternatea
AUGUST	10	Solanaceae- Datura metal
SEPTEMBER	11	Mitotic cell devision-Metaphase,Anaphase
	12	Plant Anatomical structure-Dicot leaf and Monocot leaf
OCTOBER	13	Starch-lodine test
OCTOBER	14	Lipid- Saponification test
	15	Protein-Biuret test
	16	Plasmolysis and Deplasmolysis
	17	Potato Osmoscope
NOVEMBER	18	Paper Chromatography
TTO VEWIDER	19	Wilmott's bubbler
	20	Demonstration of production of CO2 during respiration
	21	Arc auxanometer

## BIO ZOOLOGY

MONTH	SL	EXPERIMENT
	Preserved Specimens/Photographs	
	1	Spongilla Sea Anemone
June	2	Tapeworm Ascaris Earthworm
	3	Cockroach
	4	Pila, Starfish, Balanoglossus, Rat
	5	Squamous Epithelium
July	6	Columnar Epithelium
July	7	Test for Salivary Amylase
	8	Identify the sex of cockroach (using hand lens)
	Prepared Slides/Pictures/Photographs	
	1	RBC
August	2	WBC
	3	Test for Ammonia
	4	Test for Urea
	5	Humerus
September	6	Pelvic girdle
Б	7	Rib cage (True ribs, Pseudo ribs, Floating ribs)
	8	Ball and Socket joint
	9	Addison's disease
October	10	Marasmus
	11	Exopthalmic Goitre
November	1	Determine Your Blind Spot

### CLASS 11

# COMPUTER SCIENCE

MONTH	SL	EXPERIMENT
JUNE	CS1	Gross Salary
JULY	CS2	Percentage
3021	CS3	Palindrome
	CS4	Number Conversion
AUGUST	CS5	Fibonacci prime Series
	CS6	Insert/Delete elements in an array
SEPTEMBER	CS7	Boundary elements of a matrix
OCTOBER	CS8	ABC Publishers
	CS9	Employee details using class
NOVEMBER	CS10	Student Details

### CLASS 11

# COMPUTER APPLLICATION

MONTH	SL	EXPERIMENT
JUNE	CA1	Open office Writer-Formatting Invoice
JULY	CA2	Open Office Calc - Interest Calculation
JULI	CA3	HTML-Form Design
AUGUST	CA4	HTML- Height and Weight Table
AUGUST	CA5	HTML- Nested List
SEPTEMBER	CA6	CSS-Formatting Webpage
OCTORER	CA7	Javascript - Display Text
OCTOBER	CA8	Javascript - Multiplication Table
NOVEMBER	CA9	Javascript - Display Weekdays in Words
	CA10	Javascript - Login Form



монтн	SL	EXPERIMENT
June	1	Meter brige
	2	Tangent galvanometer
h.de-	3	Potentiometer
July	4	Spectrometer - Prism
August	5	Spectrometer - Grating
	6	PN Junction diode
October	7	Zener Diode
	8	NPN Junction transitor
November	9	Logic gates
	10	De Morgan's first and Second theorems

## CHEMISTRY

монтн	SL	EXPERIMENT
Ligarian	1	Estimation of Ferrous Sulphate
June	2	Estimation of Ferrous ammonium sulphate
July	3	Estimation of Oxalic acid (Redox titration) Organic qualitative analysis of; 1. acetophenone 2. cinnamic acid
August	4	Estimation of Sodium Hydroxide Organic qualitative analysis of; 3. salicylic acid 4. Benzoic acid
September	5	Estimation pf Oxalic acid (Acid base titration)
October	6	Organic qualitative analysis of 5. Benzaldehyde 6. Urea 7. Aniline
November	7	Organic qualitative analysis of ; 8. Cinnamaldehyde 9. Glucose

## **BOTANY**

монтн	SL	EXPERIMENT
	1	T.S. of Mature anther
	2	L.S. of an Angiospermic ovule
	3	Natural methods of vegetative propagation in plants - Rhizome, Sucker, Epiphyllous buds
June	4	Adoptation of flowers for pollination by different agents – Wind, Insects
	5	Structure of Dicotyledonous seed – Gram (Cicer)
	6	Types of ovules – Anatropous, Orthotropous, Campylotropous
	7	Study of Pollen germination on a slide
July	8	To verify Mendel's Monohybrid cross
July	9	Analysis of seed sample to study Mendelian Dihybrid Ratio
	10	Chromosomal aberration – Deletion, Duplication, Inversion
August	11	Picture of a vector [pBR 322]
	12	Genetic / Linkage maps
	13	Isolation of DNA from plant material

## **BOTANY**

MONTH	SL	EXPERIMENT
September	14	Plant tissue culture – Callus with plantlet
	15	T.S. of Nerium leaf
	16	Ecological adaptations of plants - Hydrophytic, Xerophytic, Halophytic and Epiphytic
October	17	Types of ecological pyramids – Number, Biomass, Energy
October	18	Dissect and display the pollinia of Calotropis
	19	Dispersal of seeds by various agent - wind, water and animal
	20	Flow of energy and Ten percent law
	21	Study of pH of different types of soils
	22	Water holding capacity of garden soil and road side soil
November	23	Determination of Population density and Percentage frequency of different plant species of given area by Quadrat method
	24	Economically important plants and their uses Wheat, Black pepper, Cotton, Keezhanelli, Green gram, Banana
	25	Economically important plant products and their uses: Sesame / Gingelly oil, Rubber, Aval (Flaked rice), Rose water, Henna powder, Aloe gel

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## ZOOLOGY

MONTH	SL	EXPERIMENT
June	1	Human sperm, Human Ovum Paramecium - Conjugation
July	2	ABO - blood grouping Analysing mendelian traits in a given population TRNA- Structure Homologous Organs Analogous Organs
August	3	Sex chromosual Anormally - turver's syndrome Normal Human Karyotype Awosomal Anormaly - Turners's syndrome Autosomal Diease - sickle cell anemia X-linked disease Haemopilia
September	4	Health & Disease Immunology and microbes in Human welfare Fermentation by yeast Entameoeba histolutica Thymus T.S. Lymphnode- T.S.
October	5	Bio Technology Animal Cloning - Dolly( sheep) Insulin production - flowchart
November	6	Ecology Marking of wildlife sanctuary and National parks in India Determination of colour and PH in the given water samples Mutualism - sea anemone on hermit crab commensalism Suckerfish (echeneis) on Shark

## BIO BOTANY

MONTH	S.NO	EXPERIMENT(Slide/photograph/model)
	1	T.S of Mature Anther
JUNE	2	L.S of an Angiospermic ovule
	3	Structure of Dicotyledonous seed - Gram
JULY	4	E.coli cloning vector (pBR 322)
JULI	5	Analysis of seed sample to study Mendelian Dihybrid Ratio
AUGUST	6	Chromosomal aberration- Deletion, Duplication, Inversion
AUGUST	7	Genetic / Linkage maps
SEPTEMBER	8	Plant tissue culture - callus with plantlets
OCTOBER	9	Type of ecological pyramid - Biomass
OCTOBER	10	Flow of energy and ten percent law
	11	Study of Pollen germination on a slide
NOVEMBER	12	Isolation of DNA from plant material
	13	Ecological Importance of Plants - Sesame, Rubber, Henna powder

## BIO ZOOLOGY

MONTH	SL	EXPERIMENT
June	1	Human sperm, Human Ovum Paramecium - Conjugation
July	2	ABO- blood grouping Analysing mendelian traits in a given population tRNA- Structure Homologous Organs Analogous Organs
August	3	Normal Human Karyotype Autosomal Anormaly Pacaus syndrome Sex chromosomal Anormaly - Turners's syndrome Autosomal Diease-sickle cell anemia X-linked disease Haemophilia
September	4	Fermentation by yeast Entamoeba histolytica Thymus T.S. Lymphnode - T.S.
October	5	Bio Technology Animal Cloning - Dolly (sheep) Insulin production - flowchart
November	6	Ecology Marking of wildlife sanctuary and National parks in India Determination of colour and PH in the given water samples

### CLASS 12

# COMPUTER SCIENCE

MONTH	SL	EXPERIMENT
JÜNE	PY1	a) Calculate Factorial
JONE	FIL	b) Sum of Series
	PY2	a) Odd or Even
JULY	112	b) Reverse the String
	PY3	Generate values and remove odd numbers
	PY4	Generate prime numbers and Set Operations
AUGUST	PY5	Display a string elements -Using Class
	PY6	MYSQL- Employee Table
SEPTEMBER	PY7	MYSQL-Student Table
OCTORER	PY8	Python with CSV
OCTOBER	PY9	Python With SQL
NOVEMBER	PY10	Python Graphics with Pip

### CLASS 12

# COMPUTER APPLLICATION

монтн	SL	EXPERIMENT
JUNE	CA1	Page Formatting using pagemaker
JULY	CA2	Creating notice board using pagemaker
	CA3	Creating visiting card using pagemaker
AUGUST	CA4	Creating notice board using pagemaker
	CA5	Performing Arithmetic Operations using PHP
SEPTEMBER	CA6	Using a ifelse ifelse statement in PHP
OCTOBER	CA7	Using a Switch Statement in PHP
OCTOBER	CA8	Using a while loop in PHP
NOVEMBER	CA9	Using a For Loop in PHP
	CA10	Using a Foreach Loop in PHP

ஒருமைக்கண் தான்கற்ற கல்வி ஒருவற்கு எழுமையும் ஏமாப் புடைத்து.

