

THE ALTUS INTERNATIONAL SCHOOL

SYLLABUS BOOK 2026-27

CLASS – XII SCIENCE

S. No.	Book Name	Subject	Publisher
1.	Vistas Flamingo	English	NCERT
2.	Physics NCERT Physics Helping Book Physics Practical Book	Physics Physics Physics	NCERT S L Arora Bharat
3.	Mathematics Lab manual	Mathematics Mathematics	NCERT Bharat
4.	Chemistry NCERT Chemistry Helping Book Chemistry Practical Book	Chemistry Chemistry Chemistry	NCERT Modern's ABC Arihant
5.	Biology NCERT Biology Practical Book	Biology Biology Biology	NCERT Arihant Modern's ABC
6.	Information practice	CS / IP	DhanpatRai PreetiArora
7.	Physical Education	Physical Education	Full Marks
8.	Home Science	Home Science	-
9.	Painting	Painting	-

S. No.	Stationery	Quantity
1.	English- Register	2
2.	Mathematics- Register	1
3.	Physics- Register	1
4.	Physics Practical File	1
5.	Chemistry - Register	1
6.	Chemistry Practical File	1
7.	Biology- Register	1
8.	Biology- Practical File	1
9.	Computer - Register	1
10.	IP- Register	1
11.	Physical Education Register	1
12.	Home Science Register	1
13.	Painting-Drawing File	1

SUBJECT: ENGLISH

S. No.	Month	Syllabus to be covered	
1.	April	Flamingo	- Chapter - 1 The last lesson, - Chapter - 2 The lost spring
		Vistas	- Chapter - 1 The third level
		Grammar	- Writing skills - Job application writing & - Resume making
		Class test	- Syllabus covered in April
2.	May	Flamingo	- Chapter 3- Deep water,
		Vistas	- Chapter 2- The Tiger king
		Poetry	- My Mother at sixty –six,
		Grammar	- Article writing
			- Pre -Test-1 Begin.
			- Syllabus covered from April to May.
3.	June	Poetry	- Keeping quiet
		Grammar	- Formal and Informal letters, Report writing
			- Summer Vacations
4.	July	Flamingo	- Chapter 4-Rattrap
			- Chapter 5- Indigo,
		Vistas	- Chapter 3-Journey to the end of the earth
		Poetry	- The Thing of beauty
		Grammar	-
			- Periodic Test I Begin
			- Syllabus covered from April to July
5.	August	Flamingo	- Chapter 6 –Poets and Pancakes
			- Chapter 7 – The Interview
		Vistas	- Chapter 4- The enemy
		Poetry	- A roadside stand
		Grammar	- Letters to the editor (giving suggestions or opinion on issues of public interest)
		Class test	- Syllabus covered from April to August
6.	September		- Half Yearly Examination Begin
			- Syllabus covered from April to September.
7.	October	Flamingo	- Chapter 8 –Going places
		Vistas	- Chapter 5- On the face of it
			- Chapter 6- Memories of childhood
		Poetry	- Aunt Jennifer’s Tiger
		Grammar	- Analytical paragraph
		Class Test	- Syllabus covered in the month of October
8.	November	Vistas	- Chapter 5- On the face of it
			- Revision and class tests
			- Periodic Test II Begin
			- Syllabus covered in the month of October and November.
9.	December		- Revision and class tests.
10.	January		- Revision
			- Pre Board I begins
			- Syllabus covered from April to January
11.	February		- Pre Board II begins
			- Syllabus covered from April to January.
12.	March		- Board Exams Begin.

SUBJECT: PHYSICS

S. No.	Month	Syllabus to be covered	
1.	April	Chapter - 1	- Electric Charges and Fields
		Chapter - 2	- Electrostatic Potential and Capacitance
		Class Test	- Syllabus covered in the month of April
2.	May	Chapter - 3	- Current Electricity
		Practical - 1	- To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
		Practical - 2	- To find resistance of a given wire / standard resistor using metre bridge.
		Practical - 3	- To verify the laws of combination (series) of resistances using a metre bridge.
		Practical-4	- To determine the resistance of a galvanometer by the half deflection method and to find its figure of merit.
		Chapter - 4	- Moving Charges and Magnetism
		Class Test	- Syllabus covered in the month of May
			- Pre - Test - 1 Begin
3.	June		- Extra Classes
		Chapter - 5	- Magnetism and Matter
			- Summer Vacations
4.	July	Chapter - 6	- Electromagnetic Induction
		Chapter - 7	- Alternating Current
			- Periodic Test I Begin
			- Syllabus covered from April to July
5.	August	Chapter - 8	- Electromagnetic Waves
		Chapter - 9	- Ray Optics and Optical Instruments
		Practical - 5	- To find the value of v for different values of u in case of a concave mirror and to find the focal length.
		Practical - 6	- To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$.
		Practical - 7	- To find the focal length of a concave lens, using a convex lens.
		Class Test	- Syllabus covered in the month of August
6.	September	Chapter - 10	- Wave Optics(Begins)
			- Half Yearly Examination Begin
			- Syllabus covered from April to September.
7.	October	Chapter - 10	- Wave Optics(Continue)
		Practical - 8	- To determine the angle of minimum deviation for a given prism by plotting a graph between the angle of incidence and angle of deviation.

		Chapter - 11 Class Test-	- -	Dual Nature of Radiation and Matter Syllabus covered in the month of October
8.	November	Chapter - 12 Chapter - 13	- - - -	Atoms Nuclei Periodic Test II Begin Syllabus covered in the month of October and November.
9.	December	Chapter - 14 Practical - 9	- - -	Semiconductor Electronics: Materials, Devices and Simple Circuits To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias. Revision and Chapter wise Test series.
10.	January		- -	Pre Board I begins Syllabus covered from April to January
11.	February		- - -	Practical Exams Begin Pre Board II begins Syllabus covered from April to January.
12.	March		-	Board Exams Begin.

SUBJECT: CHEMISTRY

S. No.	Month	Syllabus to be covered		
1.	April	Ch.	-	Solution
		Ch.	-	Electrochemistry
		Class Test	-	Syllabus covered in the month of April.
2.	May	Ch.	-	Chemical Kinetics
		Ch.	-	(Solutions)
			-	Pre -Test -1 Begin.
			-	Syllabus covered from April to May.
3.	June			Summer vacation
4.	July	Ch.	-	D – F - Block Elements
		Ch.	-	Coordination compound
		Practical	-	
			-	Effect of concentration and temperature on the rate of reaction between Sodium Thiosulphate and Hydrochloric acid.
			-	Study of reaction rates of any one of the following:
			-	(i) Reaction of Iodide ion with Hydrogen Peroxide at room temperature using different concentrations of Iodide ions.
			-	(ii) Reaction between Potassium Iodate, (KIO ₃) and Sodium Sulphite: (Na ₂ SO ₃) using starch solution as an indicator (clock reaction).
			-	Periodic Test I Begin
			-	Syllabus covered from April to July.
5.	August	Ch.	-	Biomolecules
		Practical	-	
			-	Thermochemistry- Any one of the following experiments
			-	(a) Enthalpy of dissolution of Copper Sulphate or Potassium Nitrate.
			-	(b) Enthalpy of neutralization of strong acid (HCl) and strong base (NaOH).
			-	(c) Determination of enthalpy change during interaction (Hydrogen bond formation) between Acetone and Chloroform.
		Class Test	-	Syllabus covered in the month of August.
6.	September	Practical		Chromatography
			-	(a) Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of R _f values.
			-	(b) Separation of constituents present in an inorganic mixture containing two cations only (constituents having large difference in R _f values to be provided).
			-	Revision
			-	Half Yearly Examination Begin
			-	Syllabus covered from April to September.

7.	October	Ch.	-	Coordination Compounds
		Ch.	-	Haloalkanes and Haloarenes
		Ch.	-	Alcohol, Phenol and Ether
		Practical	-	(a) Preparation of Inorganic Compounds Preparation of double salt of Ferrous Ammonium Sulphate or Potash Alum. Preparation of Potassium Ferric Oxalate.
			-	(b) Preparation of Organic Compounds Preparation of any one of the following compounds i) Acetanilide ii) Di - benzaldehyde iii) p-Nitroacetanilide iv) Aniline yellow or 2 - Naphthol Aniline dye.
		Class Test	-	Syllabus covered in the month of October.
8.	November	Ch.	-	Aldehyde, Ketones and Carboxylic acid
		Ch.	-	Amines
		Practical	-	Tests for the functional groups present in organic compounds: Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups.
			-	Periodic Test II Begin
			-	Syllabus covered in the month of September to November
9.	December		-	Revision
		Practical	-	1- Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given foodstuffs. Determination of concentration/ molarity of KMnO_4 solution by titrating it against a standard solution of:
			-	(a) Oxalic acid
			-	(b) Ferrous Ammonium Sulphate
			-	2- Qualitative analysis Determination of one anion and one cation in a given salt Cation: Pb^{2+} , Cu^{2+} , As^{3+} , Al^{3+} , Fe^{3+} , Mn^{2+} , Zn^{2+} , Ni^{2+} , Ca^{2+} , Sr^{2+} , Ba^{2+} , Mg^{2+} , NH_4^+ (CO_3^{2-} , S^{2-} , SO_3^{2-} , NO_2^- , SO_4^{2-} , Cl^- , Br^- , I^- , PO_4^{3-} , $\text{C}_2\text{O}_4^{2-}$, CH_3COO^- , NO_3^- (Note: Insoluble salts excluded).
		Class Test	-	Syllabus covered in the month of August.
10.	January		-	Revision
			-	Pre Board I begins
			-	Syllabus covered from April to January
11.	February		-	Practical Exams Begin
			-	Pre Board II begins
			-	Syllabus covered from April to January.
12.	March		-	Board Exams Begin.

SUBJECT: BIOLOGY

S. No.	Month	Syllabus to be covered	
1.	April	Ch.- 1	- Sexual reproduction in flower
		Ch.- 3	- Sexual reproduction in Human
		Class Test	- Syllabus covered in the month of April
2.	May	Ch.- 4	- Reproductive health
		Ch.- 5	- Principal of inheritance and Variation
			- Pre-Test-1 Begin.
			- Syllabus covered from April to May.
3.	June		- Summer vacation
4.	July	Ch.- 6	- Molecular basis of inheritance
		Ch.- 7	- Evolution
		Ch.- 8	- Human health and disease
		Practical-1	- Prepare a temporary mount to observe pollen germination.
		Practical-2	- Study the plant population density by quadrat method
			- Periodic Test I Begin
			- Syllabus covered from April to July.
5.	August	Ch.- 9	- Strategies for enhancement in food production
		Ch.- 10	- Microbes in human welfare
		Class Test	- Syllabus covered in the month of August
		Practical-3	- Study the plant population frequency by quadrat method.
		Practical-4	- Prepare a temporary mount of onion root tip to study mitosis.
6.	September	Practical-5	- Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc
			- Revision
			- Half Yearly Examination Begin
			- Syllabus covered from April to September
7.	October	Ch.- 11	- Biotechnology : principles and processes
		Ch.- 12	- Biotechnology and its application
		Class Test	- Syllabus covered in the month of October
		Spotting	-
			- 1- Flowers adapted to pollination by different agencies (wind, insects and birds).
			- 2- Pollen germination on stigma through a permanent slide or scanning electron micrograph.
			- 3- Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
			- 4- Meiosis in onion bud cell or grasshopper testis through permanent slides.
8.	November	Ch.- 13	- Organisms and populations
		Ch.- 14	- Ecosystem
		Ch.- 15	- Biodiversity and conservation
			- Periodic Test II Begin
			- Syllabus covered in the month of September to November

9.	December	Ch.- 16	-	Environmental
		Spotting	-	Revision
			-	5- T.S. of blastula through permanent slides (Mammalian).
			-	6- Mendelian inheritance using seeds of different colour/sizes of any plant.
			-	7- Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness.
			-	8- Controlled pollination - emasculation, tagging and bagging.
			-	9- Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause.
		Class Test	-	Syllabus covered in the month of December
10.	January		-	Pre Board I begins
			-	Syllabus covered from April to January.
11.	February		-	Practical Exams Begin
			-	Pre Board II begins
			-	Syllabus covered from April to January.
12.	March		-	Board Exams Begin.

SUBJECT: MATHEMATICS

S. No.	Month	Syllabus to be covered	
1.	April	Chapter - 1 - Chapter - 2 -	Relations and Functions Inverse Trigonometric Functions Activity – 1 & 2 from lab manual
2.	May	Chapter - 3 - Chapter - 4 - -	Matrices Determinants Activity – 3 & 4 from lab manual Pre -Test – 1 Begin
3.	June	 Chapter - 5 - -	Extra Classes Continuity and Differentiability Summer Vacations
4.	July	Chapter - 6 - -	Applications of Derivatives Activity – 5 & 6 from lab manual Syllabus covered from April to July
5.	August	Chapter - 7 - Chapter - 8 - Class Test -	Integrals Applications of Integrals Activity – 7 & 8 from lab manual Syllabus covered in the month of July & August
6.	September	Chapter - 9 - Chapter - 10 - - -	Differential Equations Vector Algebra Half Yearly Examination Begin Syllabus covered from April to September.
7.	October	Chapter - 11 - Chapter - 12 - Chapter - 13 - Class Test -	Three dimensional Geometry Linear Programming Probability Activity – 9 & 10 from lab manual Syllabus covered in the month of September & October
8.	November		Revision
9.	December		Revision
		Class Test -	Chapter wise
10.	January		Revision Pre Board I begins Syllabus covered from April to November.
11.	February		Practical Exams Begin Pre Board II begins Syllabus covered from April to January.
12.	March		Board Exams Begin.

SUBJECT: PAINTING

S. No.	Month	Syllabus to be covered	
1.	April	UNIT-1	- (a) Six Limbs of Indian Painting & Fundamentals Of Visual Art
		Ch.1	- Indian Miniature Painting
		1.1	- Pal School
		1.2	- Western Indian Painting or Jain School
		1.3	- Central Indian School
		Activity	- Still life (coloring and shading)
2.	May	Ch.2	- (b) The Rajsthani School
		2.1	- Origin and development
		2.2	- Sub Schools : Mewar, Bundi, Jodhpur, Bikaner Kishangarh and Jaipur
		2.3	- Main features of Rajsthani School
		Activity	- Plate – 5
3.	June		- Summer Vacations
4.	July		- Revision for Periodic I
			- Periodic I Begin
			- Syllabus covered from April to July
		2.4	- Study of the following Rajasthani Paintings
			- (i) MaruRagini, (ii) Chaugan Players, (iii) Krishna on Swing
			- (iv) Radha (Bani-Thani), (v) Bharat Meets Rama At Chitrakut
		Activity	- land escape
5.	August	Ch.3	- The Pahadi School
		3.1	- Origin And Development
		3.2	- Sub Schools : Basohli, Guler, Kangra, Chamba and Garhwal
		3.3	- Main Feature of the Pahari School
		3.4	- Study of the following Pahari Paintings
			- (i) Krishna With Gopis - Basohli
			- (ii) NandYashoda and Krishna with Kinsmen Going to Vrindavana
		Activity	- Nature painting
6.	September		- Half Yearly Examinations Begin
			- Syllabus covered from April to September
		UNIT-2	- The Mughal School and The Deccan Schools of Miniature Paintings.
		Ch.1	- The Mughal School
		Activity	- Plate – 11
7.	October	Ch-2	- The Deccan School
		Activity	- Festival painting

8.	November	Unit -3	- The Bengal School Of Painting
			- (a) National Flag of India and the Symbolic significance of its forms and the colors.
			- (b) Introduction to the Bengal School of Painting.
		Activity	- Plate 17,18 and 21
			- Periodic II Begins
			- Syllabus covered from October to November
9.	December	Unit - 4	- Modern Trends in Indian Art.
			- (a) Paintings
			- (b) Graphic Prints
		Activity	- plate-25
10.	January		- (c) Sculptures.
		Activity	- Plate- 27
11.	February		- Revision for Annual Exam
12.	March		- Annual Examinations Begins
			- Syllabus covered from April to February.

SUBJECT: PHYSICAL EDUCATION

S. No.	Month	Syllabus to be covered		
1.	April	Ch - 1	-	Planning in Sports
		Class Test	-	Syllabus covered in the month of April.
2.	May	Ch - 2	-	Children & Women in Sports
			-	Pre-Test-1 Begin.
			-	Syllabus covered from April to May.
3.	June	Ch - 3	-	Yoga as Preventive measure for Lifestyle Disease
			-	Summer Vacations.
4.	July	Ch - 3	-	Yoga as Preventive measure for Lifestyle Disease
			-	Periodic Test I Begin
			-	Syllabus covered from April to July
5.	August	Ch - 4	-	Physical Education & Sports for CWSN
		Ch - 5	-	Sports & Nutrition
		Class Test	-	Syllabus covered in the month of August.
6.	September	Ch - 6	-	Test & Measurement in Sports
			-	Revision.
			-	Half Yearly Examination Begin
			-	Syllabus covered from April to September
7.	October	Ch - 7	-	Physiology & Injuries in Sports
		Class Test	-	Syllabus covered in the month of October.
8.	November	Ch - 8	-	Biomechanics & Sports
		Ch - 9	-	Psychology & Sports
			-	Revision.
			-	Periodic Test II Begin
			-	Syllabus covered in the month of October and November.
9.	December	Ch - 10	-	Training in Sports
			-	Revision all work (April to December)
		Class Test	-	Syllabus covered in the month of December.
10.	January		-	Pre Board I begins
			-	Syllabus covered from April to December.
11.	February		-	Practical Exams Begin
			-	Pre Board II begins
			-	Syllabus covered from April to December.
12.	March		-	Board Exams Begin.

SUBJECT: COMPUTER SCIENCE

S. No.	Month	Syllabus to be covered		
1.	April	Ch.- 1	-	Review of Python basics
		Class Test	-	Syllabus covered in the month of April.
2.	May	Ch.- 2	-	Exception Handling
			-	Pre-Test-1 Begin.
			-	Syllabus covered from April to May.
3.	June	Ch -3	-	Functions
			-	Summer Vacations.
4.	July		-	Functions
			-	Periodic Test I Begin
			-	Syllabus covered from April to July.
5.	August		-	File Handling
			-	Data Structure
		Class Test	-	Syllabus covered in the month of August.
6.	September		-	Revision.
			-	Half Yearly Examination Begin
			-	Syllabus covered from April to September
7.	October		-	Computer Networks
		Class Test	-	Syllabus covered in the month of October.
8.	November		-	Database Management System
			-	Revision.
			-	Periodic Test II Begin
			-	Syllabus covered in the month of October and November.
9.	December		-	Revision all work (April to December)
		Class Test	-	Syllabus covered in the month of December.
10.	January		-	Pre Board I begins
			-	Syllabus covered from April to December.
11.	February		-	Practical Exams Begin
			-	Pre Board II begins
			-	Syllabus covered from April to December.
12.	March		-	Board Exams Begin.