



JVPS, BNL

THE VALUABLE ORIENTATION OF CONNECTIVITY AN ENERGETIC SESSION BEGINS WITH A CREATIVE MINDSET

Heading Towards The Bright New Session

The heralding of the new session is an auspicious time for the Jai Vatikan family. It opens the gateway ushering each of us into the portals of the school with invigorated minds and bodies and envisaging new dreams and hopes. The Present Orientation letter will help you to explore the factors and situations that will definitely benefit you and your child in the successful journey of this important transition phase.

ROUTINES ARE FOREMOST

- Time management helps to lead a successful life. Motivate your child to set up a healthy routine so that child learns to prioritize various tasks and does not feel burdened.
- Set an appropriate sleeping and wake up time so that your child adjusts well with the new timings and is energetic and active during the school hours.
- Ensure that you provide fresh and adequate tiffin so that your child enjoys a healthy meal in school and does not feel uneasy during the school hours. The teachers would ensure that the child finishes his/her tiffin.
- Further, any issues regarding your child's eating habit could be informed to the class teacher.

TALK TO YOUR CHILD ABOUT THE SCHOOL

- Let your child share every activity being performed in the school on a regular basis. It will enhance the trust between you and your child.
- If your child feel hesitant in sharing, initiate the discussion yourself to make your child more expressive and open so that he/she can discuss and talk about all major concerns which he/she might otherwise be hesitant to.
- Create the feelings of positivity and good will in the child towards the school and the teachers.



DISCIPLINE- THE BRIDGE BETWEEN GOALS AND ACCOMPLISHMENTS

There is value of discipline in all walks of life. Whether at school or at home, in the office or in the factory, in the playground or in the battlefield, discipline is a necessity.

- **Discipline is indispensable for all to live a successful and happy life.**
- **Discipline gives us an opportunity to learn from experience and grow.**
- **Lack of discipline would result in complete chaos and disorder, no peace and progress.**

FOR PARENTS

- Plan the DISCIPLINE TECHNIQUES.
- Explain the technique and the reason of following it.
- Set your own example of disciplined conduct and behaviour for your children to follow.
- You will SEE a positive change in your child.



DISCIPLINE IS DOING WHAT YOU KNOW NEEDS TO BE DONE, EVEN WHEN YOU DON'T WANT TO DO IT.

E.g.: If it is a rule that the child must have limited access to electronic devices and gadgets then,

- **Set the time**
- **Explain the benefits of minimum visual screen usage.**
- **Be firm that the child doesn't use visual screens more than the time allotted by you.**



- ✚ Be clear about the rules that you want your child to follow.
- ✚ Schedule or establish rules for him/her to follow.
- ✚ Paste the rules in his/her room or cupboard.

For E.g.: If you wish to make the child follow a time table then:

- **Make a time table with the child's consent.**
 Note- Ensure the Child's consent if you want it to be followed properly.
- **Explain the benefits of following the time table.**
- **Paste it on the child's cupboard to follow.**



- ✚ Tell them about the after effects of indiscipline.
- ✚ **GIVE YOUR CHILD SMALL BUT INDIVIDUAL RESPONSIBILITIES.**

For E.g.: If your wish is to make a child responsible then:

- **Assign your child with small tasks related to home.**
- **Do not complain about minute mistakes; rather give small gifts on the successful completion of the tasks. (Appreciations work as wonder)**
- **Explain that his/her responsibility and duty is helping everyone at home.**
- ✚ **Lastly:** Reward your child.... After all he/she is your child. But ensure that the rewards act as an effective source of appreciation and motivation for the child instead of pampering him/her.

FOR STUDENTS

- ✚ Whatever you begin (as a point of honour) always finish it as it'll boost your confidence.
- ✚ Exercise to keep you fit, active and energies focused.
 Daily exercise will energize your soul, mind, body.
- ✚ Dump excuses and try your level best in very effort.
- ✚ Be honest to yourself and to others.
- ✚ Nothing can be achieved by following SHORTCUTS.
- ✚ Create powerful habits, organised routines and humble behaviour.
- ✚ Study the habits and lives of great, famous and successful people. Get inspired from them.
- ✚ Try to be productive. Compete with yourself only. Try to achieve and do better than you did previously.



*Lastly, remember, power, talent and force is inside all of us
 We need to rise up and shine
 Discipline is the only key to shine and succeed better.*

Managing these few tips you can make this whole new school experience more exciting. Further, for intensifying fruitful and healthy bonding, it's important to stay connected with the school via School Pad and Broadcasting Whats App group and ensure your regularity for the chat sessions and PTMs. Regular feedbacks are always welcome.

*Wishing you a happy and delightful year ahead!
 Happy Parenting!! Happy Teaching!!*

Vanisha Bansal

Ar. (Mrs.) Vanisha Bansal
 Chief Academic Advisor, JVPS



JAI VATIKA PUBLIC SCHOOL

Syllabus Class XII (Science) 2021-2022



ENGLISH

Prescribed Books: 1. Flamingo: English Reader by NCERT
2. Vistas: Supplementary Reader by NCERT

Reference Books: 1. BBC Compacta English Core

TERM 1

April

Flamingo: The Last Lesson
Vistas: The Third Level
Poetry: My Mother at Sixty Six
Reading: Unseen Passage (factual, descriptive or literary)
Writing: Notice Writing

May

Flamingo: Lost Spring
Vistas: The Enemy
Poetry: An Elementary School Classroom in a Slum
Reading: Unseen Passage (Discursive /Persuasive)
Writing: Classified Advertisement

July

Flamingo: Deep Water
Reading: Unseen Passage (Factual)
Writing: Letter to an Editor (giving suggestions or opinion on issues of public interest)

August

Poetry: Keeping Quiet
Writing: Letter to an Editor (giving suggestions or opinion on issues of public interest), Article Writing

September Flamingo: The Rattrap (Prose)

TERM II

October

Vistas: Should Wizard hit Mommy?
Poetry: A Thing of Beauty
Reading: Unseen Passage (factual, descriptive or literary), Case based Unseen (factual)
Writing: Formal & Informal Invitation Cards or the replies to Invitations

November (Revision Term-I according to CBSE prescription for Board Exams.)

Flamingo: Indigo (Prose)
Writing: Letter of Application for a Job, Report Writing

December- Vistas: On the Face of it
Evans Tries an O level

Poetry: Aunt Jennifer's Tigers
Reading: Unseen Passage (Discursive /Persuasive)

January : **Revision**

PHYSICS

Prescribed Books: 1. Physics for Class XII, Part I & II, NCERT
Reference Book: 1. Pradeep's Fundamental Physics (Pradeep)
Lab Manual: SP Laboratory Manual Physics.

April Chapter–1: Electric Charges and Fields
Chapter–2: Electrostatic Potential and Capacitance
Chapter–3: Current Electricity

May Chapter–4: Moving Charges and Magnetism
Chapter–5: Magnetism and Matter

July Chapter–6: Electromagnetic Induction

August Chapter–7: Alternating Current

Experiments : **(Term-I)**

1. To determine resistance per cm of a given wire by plotting a graph for potential difference versus current.
2. To find resistance of a given wire using meter bridge and hence determine the resistivity (specific resistance) of its material.
Or
To verify the laws of combination (series) of resistances using a meter bridge.
Or
To verify the laws of combination (parallel) of resistance using a meter bridge.
3. To compare the EMF of two given primary cells using potentiometer.
Or
To determine the internal resistance of given primary cell using potentiometer.
4. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
5. To convert the given galvanometer (of known resistance and figure or merit) into an ammeter of (0-30mA) range and to verify the same.
Or
To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of (0-3V) range and to verify the same.
6. To find the frequency of the A.C. mains with a Sonometer.

Activities :

1. To measure the resistance and impedance of an inductor with or without iron core
2. To measure the resistance, voltage(A.C./D.C.), current(A.C.) and check continuity of a given circuit using multimeter.
3. To assemble the household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
4. To assemble the components of a given electrical circuit.

5. To study the variation in potential drop with length of a wire for a steady current.
6. To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components, which are not connected in proper order and correct the circuit and the circuit diagram.

TERM II

September

Chapter-8: Electromagnetic Waves

Chapter-9: Ray Optics and Optical Instruments

October

Chapter-9: Ray Optics and Optical Instruments (continued)

Chapter-10: Wave Optics

November

(Revision Term-I according to CBSE prescription for Board Exams.)

Chapter-11: Dual Nature of Radiation and Matter

December

Chapter-12: Atoms

January

Chapter-13: Nuclei

Chapter-14: Electronic Devices

Experiments :

(Term-II)

1. To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$.
2. To find the focal length of a convex mirror, using a convex lens.
Or
To find the focal length of a concave lens, using a convex lens.
3. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
4. To determine refractive index of a glass slab using a travelling microscope.
5. To find refractive index of a liquid by using convex lens and plane mirror.
6. To draw the I-V characteristic curve for a p-n junction in forward bias and reverse bias.

Activities :

1. To identify a diode, an LED, a resistor and capacitor from a mixed collection of such items.
2. Use of multimeter to see the unidirectional flow of current in case of a diode and an LED & check whether a given electronic component (e.g. diode) is in working order.
3. To study effect of intensity of light (by varying distance of the source) on an LDR.
4. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.
5. To observe polarization of light using two Polaroid's.
6. To observe diffraction of light due to a thin slits.
7. To study the nature and size of the image formed by a (i) Convex Lens (ii) Concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the mirror).
8. To obtain a lens combination with the specified focal length by using two lenses from the given set of lenses.

CHEMISTRY

Prescribed Books: Chemistry Textbook Part I, II (NCERT)
Reference Book Modern ABC of Chemistry for Class XII by S.P Jauhar
Lab Manual: SP Laboratory Manual Chemistry.

April 1. Solid State
2. Solutions
May 3. P-Block Elements
4. Haloalkanes and Haloarenes
July 5. Alcohols, Phenols and Ethers Surface Chemistry
6. Biomolecules
August Revision for Term I

Practical (Term-I): A. Volumetric analysis:-
Determination of concentration/ molarity of KMnO_4 solution by titrating it against a standard solution of:
i. Oxalic acid,
ii. Ferrous Ammonium Sulphate
B. Salt analysis:-
Determination of one cation and one anion in a given salt.
Cations- Pb^{2+} , Cu^{2+} , As^{3+} , Al^{3+} , Fe^{3+} , Mn^{2+} , Ni^{2+} , Zn^{2+} , Co^{2+} , Ca^{2+} , Sr^{2+} , Ba^{2+} , Mg^{2+} , NH_4^+
Anions- $(\text{CO}_3)^{2-}$, S^{2-} , NO_2^- , SO_3^{2-} , SO_4^{2-} , NO_3^- , Cl^- , Br^- , I^- , PO_4^{3-} , $\text{C}_2\text{O}_4^{2-}$, CH_3COO^-
C. Chromatography:-
i. Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of R_f values.
ii. Separation of constituents present in an inorganic mixture containing two cations only
D. Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given foodstuffs.
TERM II
September 7. Electrochemistry
October 8. Chemical Kinetics
9. Surface Chemistry
November 10. d- and f-Block Elements
(Revision Term-I according to CBSE prescription for Board Exams.)
December 11. Coordination Compounds
12. Aldehydes, Ketones and Carboxylic Acid
January 13. Amines
Practical (Term-II): E. Volumetric analysis:-
Determination of concentration/ molarity of KMnO_4 solution by titrating it against a standard solution of:
i. Oxalic acid,
ii. Ferrous Ammonium Sulphate

F. Salt analysis:-

Determination of one cation and one anion in a given salt.

Cations- Pb^{2+} , Cu^{2+} , As^{3+} , Al^{3+} , Fe^{3+} , Mn^{2+} , Ni^{2+} , Zn^{2+} , Co^{2+} , Ca^{2+} , Sr^{2+} , Ba^{2+} , Mg^{2+} , NH_4^+

Anions- $(CO_3)^{2-}$, S^{2-} , NO_2^- , SO_3^{2-} , SO_4^{2-} , NO^- , Cl^- , Br^- , I^- , PO_4^{3-} , $C_2O_4^{2-}$, CH_3COO^-

G. Preparation of double salt of ferrous ammonium sulphate or potash alum.

H. Test for functional groups in organic compounds.

December

Revision of Complete Syllabus

BIOLOGY

Prescribed Books: 1. Text book of Biology (NCERT)

Reference Book: Modern abc by Dr. B. B. Arora & A.K. Sabarwal

Lab Manual: SP Laboratory Manual Biology.

APRIL	Chapter 2	Sexual Reproduction in Flowering Plants
	Chapter 3	Human Reproduction
MAY	Chapter 4	Reproductive Health
JULY	Chapter 5	Principles of Heredity and Variation
AUGUST	Chapter 6	Molecular basis of Inheritance

Practicals:

1. Prepare a temporary mount to observe pollen germination.
2. Isolate DNA from available plant materials such as spinach, green pea seeds, papaya.
B. Study/observation of the following (Spotting)
B.1 Flowers adapted to pollination by different agencies (wind, insects, birds).
B.2 Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
B.3 Meiosis in onion bud cell or grasshopper testis through permanent slides.
B.4 T.S. of blastula through permanent slides (Mammalian).
B.5 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.

TERM-II

SEPTEMBER	Chapter 8	Human Health & Diseases
OCTOBER	Chapter 10	Microbes in Human Welfare
	Chapter 11	Principles and Process of Biotechnology
NOVEMBER	(Revision Term-I according to CBSE prescription for Board Exams.)	
DECEMBER	Chapter 12	Applications of Biotechnology in Health and Agriculture
	Chapter 13	Organisms and Populations
JANUARY	Chapter 15	Biodiversity and its Conservation

Practicals

TERM - II:

1. Prepare a temporary mount of onion root tip to study mitosis.
2. Collect water from two different water bodies around you and study them for pH, clarity

and presence of any living organism

3. Collect and study soil from at least two different sites and study them for texture, moisture content, pH and water holding capacity. Correlate with the kinds of plants found in them.

B. Study/observation of the following (Spotting)

B.6 Common disease - causing organisms like *Ascaris*, *Entamoeba*, *Plasmodium*, any fungus causing ringworm through permanent slides, models or virtual images. Comment on symptoms of diseases that they cause.

B.7 Two plants and two animals (models/virtual images) found in xeric conditions. Comment upon their morphological adaptations.

B.8 Two plants and two animals (models/virtual images) found in aquatic conditions. Comment upon their morphological adaptations.

MATHEMATICS

Prescribed Book: 1. **Mathematics Textbook for Class XII-NCERT, Part I and Part II**

Reference Book: 2. **Modern ABC of Mathematics for Class XII**

Lab Manual: SP Laboratory Manual Mathematics.

TERM 1:

April

Chapter 3 : Matrices

Chapter 4 : Determinants

May

Chapter 1 : Relation and Functions

Chapter 2 : Inverse Trigonometric function

July

Chapter 5 : Continuity and Differentiability

August

Chapter 6 : Application of Derivatives

TERM-II

September Chapter 12 : Linear Programming

Chapter 13 : Probability

October Chapter 7 : Integral

November **(Revision Term-I according to CBSE prescription for Board Exams.)**

Chapter 8 : Application of Integrals

December Chapter 10 : Vector

January Chapter 9 : Differential Equation

February Chapter 11 : Three Dimensional Geometry

PHYSICAL EDUCATION

Prescribed Book: **A Complete Book of Physical Education (SP)**

Lab Manual A Complete Book of Physical Education (SP)

HPE Practical(SP)

April:

1. Planning in Sports

2. Sports and Nutrition

May:

5. Children and Women in Sports in Sports

July :	6. Test and measurement in Sports
Practical:	8. Biomechanics and Sports
	i) Project File (About one sport of choice)
	ii) Demonstration of fitness activity
	iii) Viva
August	3. Yoga and Lifestyle
	4. Physical Education and Sports for CWSN
September:	Practical File (HPE)
October:	7. Physiology & Injuries in Sports
	9. Psychology and Sports
Practical:	i) Project File (Yoga and General Motor fitness test)
November:	(Revision Term-I according to CBSE prescription for Board Exams.)
	i) Demonstration of fitness activity/Yoga
	ii) Viva
December:	10. Training in Sports



JAI VATIKA PUBLIC SCHOOL

Co. Edu. Sen. Sec. CBSE School

Class XII

Unit Test II (2021-22)



Written Exams

Date	Med./Non Med.	Commerce	Arts
15-Nov-2021	English	English	English
16-Nov-2021	Physics	Accounts	Political Science
17- Nov-2021	Physical Education	Physical Education	Physical Education
18- Nov-2021	Mathematics	Mathematics (Additional)	Mathematics (Additional)
20- Nov -2021	_____	_____	Punjabi
22- Nov -2021	Biology	Business Studies	History
23- Nov -2021	Chemistry	Economics	Economics

Important Instructions:-

1. Timings of school during exams will be from 8:20a.m to 11:15 a.m.
2. Regular compulsory classes will start from 25th November, 2021 (Thursday).
3. PTM and Result declaration will be held on 4th Dec, 2021 (Saturday). The timings for PTM will be 9.00 a.m. to 11.00 a.m. Please adhere to the time strictly. The result will be handed over to the Parents only.

JVPS,BNL



JAI VATIKA PUBLIC SCHOOL

Co. Edu. Sen. Sec. CBSE School



Class- XII Pre-Board Exam(2022)

<u>Date</u>	<u>Med./Non Med.</u>	<u>Commerce</u>	<u>Arts</u>
10-Jan-2022 (Monday)	Physical Education (Written & Practical)	Physical Education (Written & Practical)	Physical Education (Written & Practical)
12-Jan-2022 (Wednesday)	Chemistry (Written & Practical)	Economics (Written & Practical)	Economics (Written & Practical)
14-Jan-2022 (Friday)	Physics (Written & Practical)	B. Studies (Written & Practical)	Political Science
17-Jan-2022 (Monday)	English	English	English
20-Jan-2022 (Thursday)	Mathematics (Written & Practical)	Mathematics (Additional)	Mathematics (Additional)
22-Jan-2022 (Saturday)	Biology (Written & Practical)	Accounts (Written & Practical)	History
24-Jan-2022 (Monday)			Punjabi

Important Instructions:-

1. For your convenience, we would like to inform you well in advance that all fee dues must be cleared latest by Wednesday, 5th January 2022, failing which the student **will not be issued admit card and student will be debarred from appearing for the exams.** (Please ignore if fees already paid.)
2. Student need not come to the school, during preparatory leaves.
3. The school timing during exam days will be 8:20 am to 1:20 pm.
4. Regular classes will start from 25th January, 2022 (Tuesday)
5. PTM and Result declaration will be held on 29th January, 2022 (Saturday). The timings for PTM will be 9.00 am to 11.00 am. Please adhere to the time strictly. The result will be handed over to the Parents only.
6. Preparatory leaves for board exams for class XII students starts from 14th February, 2022 (Monday) onwards.



JVPS, BNL Holidays Calendar (2021-22)



Day	Date	Holiday
Friday	2 nd April 2021	Good Friday
Wednesday	14 th April 2021	Vaisakhi/B.R Ambedkar Jayanti
Wednesday	21 st April 2021	Ram Navmi
Sunday	25 th April 2021	Mahavir Jayanti
Wednesday	12 th May 2021	Eid-ul-Fitr
1 st June-3 rd July	Summer Vacation, School Re-opens on 5 th July 2021 (Monday)	
Tuesday	20 th July 2021	Eid-Al-Adha (Bakrid)
Sunday	15 th August 2021	Independence day
Sunday	22 nd August 2021	Raksha Bandhan
Monday	30 th August 2021	Janmashtmi
Sunday	12 th September 2021	Saraghari Shaheeds' Day
Saturday	2 nd October 2021	Gandhi Jayanti
Thursday	7 th October 2021	Aggarsain Jayanti
Thursday	14 th October 2021	Dussehra
Wednesday	20 th October 2021	Maharishi Valmiki Birthday
Wednesday - Friday	3 rd – 5 th November 2021	Diwali/Vishkarma Day
Friday	19 November 2021	Guru Nanak Dev ji Birthday
Wednesday	24 th November 2021	Martyrdom day of Shri Guru Teg Bahadur Ji
25 th December- 1 st January	Winter Vacation, School Re-opens on 3 rd Jan, 2022 (Monday)	
Wednesday	19 th January 2022	Thikriwala Diwas
Wednesday	26 th January 2022	Republic Day
Wednesday	16 th February 2022	Guru Ravidas Jayanti
Tuesday	1 st March 2022	Maha Shivaratri
Friday	18 th March 2022	Holi



JVPS, BNL

(Co-Educational, Senior Secondary, Affiliated to CBSE New Delhi)



Leave Rules for Students

For Regular School Days:

1. No leave of absence is granted except on prior **Leave Form/Application** duly signed by the Parents/Guardians. Such an application must be supported by a valid reason.
2. Keep the **Leave Form** attached in syllabus booklet safely with you, get the **Xerox Copy** of it, fill it and send it to school whenever leave is required.
3. No telephone call will be considered for the grant of leave. Only written **Application/Leave Form** will be accepted.
4. In case of absence without leave, the student on returning to school must produce the Leave Form duly signed by the Parent/Guardian. A student returning to school after recovering from a contagious or infectious disease should also produce a doctor's certificate of fitness permitting her/him to attend school.
5. In case a student remains absent from school for more than 10 days, without any information, his/her name will be struck off the rolls. Re-admission, if granted, may be done on the payment of a re-admission fee.
6. Parents will be responsible for completing the work during the leave days.
7. Students will not be allowed to leave school before the dispersal time (Short Leave), except in case of emergency. A prior written permission (Gate Pass) from the Principal should be obtained by the Parents/Guardians for the same.

For Examination Days:

1. Students absent from an examination for any reason will not be re-examined, and those absent from an examination without valid, grave and genuine reasons will be considered as **Absent Only**. In case of illness, a medical certificate issued by a competent authority will have to be produced.
2. **Absentees** in Periodic or Terms will not be eligible for **A1 Holders Rank**.
3. No student will be allowed to take the examination till all her/his school dues have been paid in full.
4. No student is generally eligible to appear in the Second Terminal Examination unless he/she has attended at least 85% of the actual teaching/working days in the academic session as per the school calendar.
5. During exam days no student will be allowed to leave school before the dispersal time.

Note:

- ❖ Best Periodic Test marks(out of 2 Periodic) will be considered in each Term Result, if a student is absent in either of the periodic, the other one will be considered as the Best One.
- ❖ If he/she remains absent in both periodic tests then he/she will be marked as absent in the report card.
- ❖ For Term Exam Absentee will be marked as absent. **(No oral, written or practical exam will be conducted again.)**

Leave Application Form

To

The Principal

Jai Vatika Public School

Barnala

I, _____ Mother/Father/Guardian of _____

(Student's Name) of Class _____ section _____ studying under

Admission No. _____ request you to grant him/her leave for

_____ day(s) and commit that my ward will be responsible for

covering the work done in school during leave(s).

Reason: _____

Date of leave(s): _____ to _____

Parent's /Guardian's

Signature

Class In- Charge

(Sanctioned/Not Sanctioned)

Principal

Leave Application Form

To

The Principal

Jai Vatika Public School

Barnala

I, _____ Mother/Father/Guardian of _____

(Student's Name) of Class _____ section _____ studying under

Admission No. _____ request you to grant him/her leave for

_____ day(s) and commit that my ward will be responsible for

covering the work done in school during leave(s).

Reason: _____

Date of leave(s): _____ to _____

Parent's /Guardian's

Signature

Class In- Charge

(Sanctioned/Not Sanctioned)

Principal