

LAKSHMIPAT SINGHANIA ACADEMY  
PT 1 Syllabus for class 9

ENGLISH: Unseen Comprehension; Miscellaneous Grammar; The Lost Child; The Road Not Taken; Kathmandu.

HINDI: गद्य - दो बैलों की कथा

पद्य – कबीर की साखियाँ एवं सबद

व्याकरण – उपसर्ग एवं प्रत्यय

अपठित बोध – अपठित गद्यांश

BENGALI:

গদ্য – ছুটি

পদ্য – খেয়া

ব্যাকরণ – স্বরসন্ধি

নির্মিতি – বোধপরীক্ষন

MATHS:

1	Number system	<p>1. Review of representation of natural numbers, integers, and rational numbers on the number line. Rational numbers as recurring/terminating decimals. Operations on real numbers.</p> <p>2. Examples of nonrecurring/ non – terminating decimals. Existence of non – rational numbers (irrational numbers) such as, <math>\sqrt{2}</math>, <math>\sqrt{3}</math> and their representation on the number line. Explaining that every real number is represented by a unique point on the number line and conversely, viz. every point on the number line represents a unique real number.</p> <p>3. Definition of <math>n</math>th root of a real number.</p> <p>4. Rationalization (with precise meaning) of real numbers of the type <math>\frac{1}{a + b\sqrt{x}}</math> and <math>\frac{1}{\sqrt{x} + \sqrt{y}}</math> (and their combinations) where <math>x</math> and <math>y</math> are natural number and <math>a</math> and <math>b</math> are integers.</p> <p>5. Recall of laws of exponents with integral powers. Rational exponents with positive real bases (to be done by particular cases, allowing learner to arrive at the general laws.)</p>
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2	<i>Polynomials</i>	<p><i>Definition of a polynomial in one variable, with examples and counter examples.</i></p> <p><i>Coefficients of a polynomial, terms of a polynomial and zero polynomial.</i></p> <p><i>Degree of a polynomial.</i></p> <p><i>Constant, linear, quadratic and cubic polynomials. Monomials, binomials, trinomials.</i></p> <p><i>Factors and multiples.</i></p> <p><i>Zeros of a polynomial.</i></p> <p><i>Motivate and State the Remainder Theorem with examples.</i></p>
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PHYSICS: Motion Chapter upto Mathematical derivations of equations of motion, numerical ( included)

CHEMISTRY: Matter in our surroundings - upto latent heat ( evaporation not included).

BIOLOGY: The Fundamental Units of Life (Till completion of Nucleus)

HISTORY: History..French Revolution till the Role of philosophers

Economics..Village of Palampur..till impact of Green Revolution  
D.p....Why Democracy..till Case study of Mexico

GEOGRAPHY: CHAPTER 1 INDIA –SIZE & LOCATION

AI:

Theory + Pract

1. Digital Rights
2. AI Ethics

**MUSIC: HINDUSTANI MUSIC (PERCUSSION INSTRUMENT – TABLA )**

**Theory**

Definition of the following :

Tala , Laya , Matra , Vibhag , Sam , Tali , Khali , Avartan

**Practical**

1. Knowledge of basic techniques and bols of Tabla and ability to do combination of syllables.
2. Knowledge of Taal “ Dadra” and “ Kaharwa”.

## **INDIAN CLASSICAL MUSIC (VOCAL)**

### **THEORY**

#### **Definition of the following:**

- Shruti
- Swar
- Saptak

### **PRACTICAL**

- Any four Alankar
- National Anthem
- Teental showing in hand

### **PAINTING: THEORY:**

- BASIC ELEMENTS OF ART

### **PRACTICAL:**

- PICTURE COMPOSITION/ STUDY WORK

**TERM – 1 (2022-23)**

**Project- Class – IX**

**Hindustani Classical Music (Vocal) (20 MARKS)**

Subject : Music (Mathematical calculation of Rhythm )

Integrated Subject - Mathematics

Learning objective - Learn about the different patterns of rhythm integrated with Mathematics.

Project work:

- Write the definition of Rhythm (2m)
- Draw the structures of different types of rhythm. You must use mathematical fraction  $\frac{3}{4}$ ,  $1\frac{1}{2}$ ,  $\frac{7}{4}$  etc. This must be done by research and experiment. (Proper calculation of different types rhythm with example must be shown). (12m)
- Give a presentation on, how time calculation is interrelated with musical rhythm. (6m)

**Learning Outcome:**

- Student will be able to draw a table on talas with different fractions of rhythm.

## TERM – 1 (2022-23)

### Project Work for Class – IX

#### Hindustani Music – Percussion Instrument – Tabla (20 MARKS)

Subject : Music (Mathematical calculation of Laya )

Integrated Subject – Mathematics

Learning Objectives :

- To know the concept of Tala which comes from Vedic era text of Hinduism , such as Samaveda
- To know about the roots of tala

Project work:

- Write the definition of Laya (2m)
- Enumerate the different types of Laya (4m)
- Show proper calculation of Laya with examples (4m)
- Explain Tala – Laya – Jati of Hindustani and Carnatic Music (6m)
- Illustrate the system of making different frames of composition (4m)

Learning Outcomes :

The student will know about:

- Indian traditional roots of music
- Concept of musical meter and frame
- Basic idea of framing Laya
- Different Laykari (Variation of Laya) i.e. Duguna laya (2/1), Teenguna laya(3/1) , Kuar laya (5/4) and application in Tala system
- Mathematical calculation
- Knowledge of making different composition Link : [https://en.m.wikipedia.org/wiki/Tala\\_\(music\)](https://en.m.wikipedia.org/wiki/Tala_(music))

**TERM 1 (2022-23)**

**PROJECT**

**CLASS 9**

**SUBJECT- Painting (20 marks)**

**TOPIC: DIGITAL LITERACY** (Integrated with IT)

Learning objective- Using a new technique for each of the work of poster making and doodle making.

Project:

Make a poster on digital awareness (10m)

Make a coloured doodle using coloured ink pens. (10m)

Do independent research

Do the work individually